Don’t Get Smart with Me!
Sustaining the ADF in the Age of the Strategic Reform Program

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In light of the Strategic Reform Program (SRP) being implemented by Defence, this article discusses risks inherent to Defence’s planned approach to Smart Sustainment reforms. It also suggests an alternative more likely to deliver cost-effective sustainment outcomes, now and into the future. Defence’s planned approach to Smart Sustainment is likely to damage the defence sustainment system and betray the national interest, but the SRP provides an opportunity to potentially fix the system’s long-standing structural weaknesses. This article recommends that Defence should move away from input-led matrix management and the status quo model of prescriptive regulatory contracting by adopting two reforms. First, Defence should institute an output-led management framework, empowering the Service Chiefs to manage capabilities and drive innovation throughout the sustainment system. Second, Defence should expand strategic partnerships between Defence and Australian defence industry, encouraging both to focus on efficiency and productivity, not just inputs and price.

Concern about the efficiency of Australia’s Department of Defence came to the fore when the Rudd Government pinned a Strategic Reform Program (SRP) to the 2009 Defence White Paper. Aimed at defending Australia in the ‘Asia Pacific Century’, Force 2030 is an ambitious plan to modernise the Australian Defence Force (ADF). The problem is that Force 2030 is beyond Australia’s financial reach unless Defence secures efficiency dividends worth approximately $20 billion between 2009 and 2019. As the then Defence Minister, Senator John Faulkner, stated, “while we have already started to build Force 2030 through decisions over the past year, achieving it in its full potential will not be possible without achieving the SRP in all its dimensions”.  

Defence is now implementing the SRP, which comprises around 300 initiatives grouped into fifteen major reform streams. All pale in comparison to ‘Smart Sustainment’, an ambitious plan to shave between $5 and $6 billion off the cost of sustaining the ADF over a decade (2009-2019). Smart Sustainment aims to “deliver … improved levels of capability at less cost by

1 Department of Defence, Defending Australia in the Asia-Pacific Century: Force 2030, (Canberra: Commonwealth of Australia, 2009).
3 Department of Defence, The Strategic Reform Program: Making it Happen (Canberra: Commonwealth of Australia, 2010), p. 3.
The goal is laudable, but the risk is that the attempt to squeeze savings from the defence sustainment system will save a little money but cause a lot of harm. Although Defence pledged that Smart Sustainment “is not about compromising capability to save costs”, it has yet to indicate it is alert to the risks attendant on its planned Smart Sustainment reforms. This article outlines those risks before suggesting an alternative approach to sustainment reform more likely to promote the cost-effective delivery of self-reliant preparedness now and into the future.

Although rarely given the attention it deserves, the defence sustainment system is critical to Australia’s national security. In the short-term, failure to meet sustainment targets has a direct impact on the ADF’s preparedness for operations. In the long-term, neglect of the defence sustainment system will leave Australia dependent on allies because it cannot sustain equipment needed for autonomous operations in its immediate region. The SRP is an opportunity to fix long-standing structural problems but the officials implementing Smart Sustainment appear to be most focused on tightening the sustainment system’s belt. Central budgets have been cut, and contract managers have been told to stay within budget. All eyes are focused on the short-term cost of sustainment, the hope being that savings can be squeezed from Australian defence industry. The problem is that belt-tightening cannot substitute for proper diet and exercise. Indeed, by creating a false impression of good-health, it is likely belt-tightening will do more harm than good.

The defence sustainment system is already damaged. Recent independent reviews make clear that at least some significant sections of the Australian defence sustainment system are underfunded in the present and underfunded for the future. They also point to longstanding institutional weaknesses. Prompted by the unexpected collapse of the ADF’s amphibious-lift capability in early-2011, the Minister for Defence asked Paul Rizzo to conduct an independent review of the repair and maintenance of the Royal Australian Navy’s (RAN’s) fleet of support ships. Rizzo’s conclusions were startling. Noting “on-going systematic failure” in the support ship sustainment system, Rizzo suggested that the SRP’s saving objectives might be incompatible with essential reforms. Emphasising the interdependency of the armed services, the Defence Materiel Organisation (DMO), and Australian defence industry, Rizzo reported that “the means to bring these relationships to best practice are either not well understood or poorly practiced”. Aware that cooperation between the armed services and

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5 Ibid.
7 Ibid., p. 8.
the DMO must be “of the highest order” Rizzo found that “there is an ‘us and them’ feel to this relationship.” Most alarmingly, Rizzo argued that both the armed services and the DMO tended to treat capability sustainment as if it were of secondary importance, neglecting to maintain the technical integrity of the ADF’s materiel systems over their operational life. Thus, the ADF suffers from “inadequate logistics support products and increased sustainment requirements, often to the detriment of whole-of-life capability and cost.”

Rizzo’s findings were echoed in the recently released ‘Phase 1 Report’ of the independent Collins Class Sustainment Review led by John Cole. Not only were “sustainment activities still being treated as a ‘poor relation’ compared to the generally higher-profile acquisition work”, Cole reported that the relationship between the armed services, the DMO, and industry was “highly-charged, difficult, and often-hostile”. Cole’s findings were damning: “we found the disparate organisation to be unfit for purpose. Recovery will demand a very serious and concentrated effort to change the relationship for the better”. Rufus Black’s recent Review of the Defence Accountability Framework also expressed concern about the weak institutional links between the armed services and the DMO, and, as Rizzo noted, the findings of several prior enquiries had “little practical effect”. The reviews shed light on a strategic debacle, casting doubt on Defence’s assertion that it can squeeze between $5 and $6 billion worth of savings from the sustainment system without causing harm.

The architects of Smart Sustainment should use the SRP as an opportunity to fix the sustainment system’s structural weaknesses. They should move away from input-led matrix management and the status quo model of prescriptive regulatory contracting by adopting two principal reforms. First, institute an output-led management framework that empowers the Service Chiefs to manage capabilities and drive innovation throughout the sustainment system. Second, expand strategic partnerships between Defence and Australian defence industry that encourage both to focus on efficiency and productivity, not just inputs and price. The reforms would ensure the cost-effective delivery of the self-reliant operational capability demanded by government. They would also help improve the poisonous relationships between the armed forces, the DMO, and industry that inhibit...
the efficient ‘Enterprise’ culture Rizzo and Cole identified as essential to reform.\textsuperscript{17}

Defence should be able to secure an efficiency dividend from the sustainment system, but it remains an open question whether or not the dividend will be large enough to meet the SRP’s objectives for Smart Sustainment reform. The question cannot be answered on the basis of public information, and it is likely that Defence has a poor understanding of both the scope and nature of whatever inefficiencies affect the sustainment system. Smart Sustainment’s goal is to save between $5 and $6 billion over a decade, the method being to offer industry less work by ‘managing’ demand for sustainment services while also using competition for short-term contracts to drive down the cost of residual work deemed to be essential. The strategy is dangerous because it provides government’s agents with strong incentives to increase the government’s total cost of ownership (TCO), neglect the ADF’s short-term preparedness requirements, and defer investments in Australia’s future defence self-reliance whenever doing so leads to a short-term cut to costs.

As a monopsonist, Defence has more than enough power to drive down the cost of contracting for sustainment outcomes. It should use that power responsibly. If the sustainment system is squeezed too hard, Australian defence industry will conform to Defence’s priorities by focusing on short-term costs \textit{even if} doing so detracts from the ADF’s preparedness, Australia’s long-term defence self-reliance, and the government’s TCO. The likelihood that Australia’s damaged defence sustainment system cannot safely generate the savings demanded by the SRP should be borne in mind. Just as there is no point acquiring \textit{Force 2030} if, due to a lack of investment, Australia cannot sustain it, there is no point saving money if it means the ADF cannot deploy when the government commands it to do so. Productivity reforms are desirable and possible but scrimping and saving must be avoided.

**The Defence Sustainment System**

In the arcane jargon of Defence, sustainment refers to the in-service materiel support requirements of the ADF. Stated simply, having acquired a materiel system (or platform, the terms are used interchangeably in this article), the system needs to be repaired, maintained, updated, upgraded—‘sustained’—before being disposed at the end of its service life. Together with acquisition, operation, and disposal, sustainment activities determine the Government’s TCO. Globally, the cost of sustaining defence equipment is now often well in excess of two-thirds of the TCO.\textsuperscript{18} As a British subsidiary

\textsuperscript{17} Cole, \textit{Collins Class Sustainment Review}, p.10.
of BAE Systems argued in a recent White Paper, sustainment costs mean that “[e]very item of equipment acquired for the Armed Forces … carries with it a mortgage on the taxpayer equivalent to twice its original purchasing cost”.19 In the Australian context, Defence spends around $5.5 billion each year sustaining the materiel systems operated by the ADF,20 the aim being “cost-effectively” to generate “self-reliant operational capability”.

Defence defines capability as the “power to achieve a desired operational effect for a designated period”.21 To generate ‘operational effects’, the ADF requires materiel systems and operators (submarines and submariners, rifles and infantrymen, jets and pilots) ready for combat deployment and supported for fighting fitness by repair, maintenance, and other engineering capabilities. Neither training nor Anzac Spirit can compensate for submarines that flounder, rifles that jam, or planes that cannot take-off. The defence sustainment system aids delivery of potential operational capability by ensuring the ‘preparedness’ of materiel systems.

Since the 1970s, the preparedness of the ADF has been set within the broader context of “self-reliance in the direct defence of Australia and in relation to Australia’s unique strategic interests”. Self-reliance means that the ADF should be able to “act independently where we have unique strategic interests at stake, and in relation to which we would not wish to be reliant on the combat forces of any foreign power”.22 The policy of self-reliance hinges on Australia’s capacity and willingness to employ military power when required to deter and defeat an armed attack on Australia or its core national interests “without relying on foreign combat or combat support forces”.23 Self-reliance does not, therefore, imply self-sufficiency. Instead, it means operational sovereignty with regards to “the direct defence of Australia” and Australia’s “unique strategic interests”, particularly those in Australia’s near abroad. Self-reliance does not preclude the option of relying on global supply chains to support the ADF,24 but it has important implications for Australian defence industry policy. As was argued in the 2007 defence industry policy:

The underlying reasons for Australia to maintain a capable in-country defence industry have not changed. The ADF needs ready access to repair and maintenance services that, for practical reasons, can only be delivered by in-country providers. The ADF also needs in-country industry to adapt,

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20 The figure is a rounded up to the closest half-million, see M. Thomson, The Cost of Defence: ASPI Defence Budget Brief 2011-2012 (Canberra: Australian Strategic Policy Institute, 2011), p. 91.
22 Department of Defence, Defending Australia in the Asia-Pacific Century, p. 48.
23 Ibid.
24 Ibid.
modify and, where necessary, manufacture equipment that is suited to Australia’s unique operating environment and military doctrine.\textsuperscript{25}

That the costs of designing or manufacturing materiel systems in Australia, or even ‘Australianising’ systems acquired overseas, outweigh the benefits, is generally accepted. Thus, Defence displays a strong predilection for military-off-the-shelf (MOTS) and commercial-off-the-shelf (COTS) systems. The result is that Australian defence industry policy is considered in the context of the global defence market, an approach that is sensible so long as it is emphasised that the ADF remains dependent on Australian industry when it comes to sustainment. As Mark Thomson and Simon Harrington argued:

There is a high priority to be able to repair, maintain, and upgrade vessels [and, presumably, other defence system] in-country because it would be simply impractical to do otherwise. The transit times to foreign maintenance locations would be prohibitive in peacetime and operationally compromising in wartime.\textsuperscript{26}

Theoretically, Defence could mitigate the tyranny of distance by purchasing larger equipment fleets and thereby reducing the significance of the time required to transport platforms to and from Australia and either Europe or the United States. In practice, the strategy rarely makes sense because defence systems tend to have a relatively high unit cost. Even if that were not the case, the strategy would leave government dependent on foreign firms that cannot be relied upon to place a high-priority on Australian sustainment contracts and have the potential to be either unwilling or unable to conform to the ADF’s demands in the event of a national security crisis. Thus: “Almost every platform in the ADF is repaired and maintained in Australia”.\textsuperscript{27}

More than twenty years of privatising defence industry, ‘contracting-out’ technically demanding sustainment tasks previously conducted by service members, and intense competition for technically skilled labour has generated what Bob Wylie termed “an irreversible dependence by the ADF on commercial suppliers of mission-critical goods and services”.\textsuperscript{28} In

\textsuperscript{26} M. Thomson and S. Harrington, \textit{Setting a Course for Australia’s Naval Shipbuilding and Repair Industry} (Canberra: Australian Strategic Policy Institute, 2002), p. 11.
\textsuperscript{27} Department of Defence, \textit{Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base} (Canberra: Commonwealth of Australia, 2010), p. 28. The notable exception being Australia’s strategic airlift capability—a particularly mobile system that benefits from the economies of scale afforded by a global sustainment network and that is in any case principally used to support coalition operations far from Australia, for example, in Afghanistan, see Boeing, ‘The Global C-17 Globemaster III Sustainment Partnership’, 2012, <http://www.boeing.com/defense-space/support/integrated_logistics/af/c17gps.html> [Accessed 24 April 2012].
particular, the ADF depends on private industry to sustain virtually its entire fleet of material systems.29 Apart from ASC, the prime contractors in Australian defence industry are all owned by foreign multinationals: BAE Systems, EADS, Boeing, Raytheon, Saab AB, Lockheed Martin, and Thales. The business decisions of these firms have a direct bearing on Australia’s defence self-reliance because they more or less determine Australia’s capacity and capability to sustain the ADF. As a monopsonist acting on behalf of the Australian Government, Defence is responsible for the state of Australian defence industry. If it neglects industrial development, industrial capabilities will stagnate and deteriorate. Defence should therefore adopt a long-term strategic perspective when engaging industry, recognising that the latter is motivated by profit and making sure it has a compelling incentive to invest to maintain and develop Australia’s defence self-reliance.

Just as the ADF has to be prepared to operate Force 2030, the Australian defence industry has to be prepared to sustain it. The principal constraints on the capacity and capability of Australian defence industry are the quantity and quality of its infrastructure and workforce. The latter tends to be the most significant, and takes the most time to develop. Defence will confront enduring difficulties recruiting and retaining skilled labour during a resources boom.30 Reverting to in-house sustainment, as in the recent past, would be costly for either the ADF or Defence. Australia’s defence industry is better able to overcome market constraints than Defence because of the former’s relative flexibility when it comes to remuneration and employment conditions. Training a skilled workforce is slow and expensive, taking ten years to produce a systems engineer able to deal with complex defence projects. The privately owned foreign multinationals that dominate Australian defence industry require a compelling incentive to make significant investments in their Australian operations.

Past Australian governments have never been willing to spend the large sums required to develop a robust Australian defence industrial base capable of designing and manufacturing a wide-range of cutting-edge defence systems. Yet, all else being equal, it is relatively difficult to repair, maintain, update, and upgrade cutting-edge defence equipment without having been involved in its design and manufacture. In the United States and the United Kingdom, self-reliant sustainment capability tends to emerge from their domestic defence manufacturing bases. That does not occur in Australia, where the vast majority of Defence’s in-country expenditure on materiel systems goes towards sustaining the force-in-being. Defence cannot assume Australian defence industry will develop the technical

expertise required to sustain the future-force as a result of ordinary ‘market’ transactions. In fact, recent experience with the Collins Class submarine suggests that it can be challenging to sustain a materiel system even if it is built in Australia; sustainment requires a conscious and deliberate policy of investing in appropriate skills and infrastructure above and beyond those required for construction. Unless Defence is willing to either contract for skills directly or issue through-life-support contracts to local subsidiaries of original equipment manufacturers (OEM) in return for their investment in Australian skills and infrastructure, contracts to sustain the force-in-being must cover the indirect cost of developing the capability and capacity to sustain the future-force.

Defence should not write industry a blank cheque, and industry should not expect one. As Thomson and Harrington argued, prudent spending on defence is “not just important as a matter of fiscal rectitude; it is strategically important to Australia that we squeeze as much capability as possible out of the money we have available for defence”.31 The government expects Defence to generate self-reliant operational capability as efficiently—or ‘cost-effectively’—as possible. Being cost-effective is not the same as being ‘cheap’. Instead, the government’s cost-effectiveness requirement means officials have to make complex trade-offs between cost and performance to arrive at optimal decisions, or, if optimal decisions are impossible, decisions that are least bad.

The Challenge for Defence’s Senior Leadership

For Defence, Smart Sustainment’s success means a “better prepared ADF, delivered at lower cost”.32 To this end, Smart Sustainment reforms are supposed to focus on “instituting deep and ongoing reforms that better sustain ADF capability at a lower cost while ensuring that capability is safe, effective, and affordable.”33 Hence, the challenge for Defence’s senior leadership is to secure some $6 billion worth of savings while also fulfilling the ADF’s preparedness requirements, driving down the Government’s TCO, and ensuring investments sufficient to self-reliantly sustain Force 2030.

Officially, Smart Sustainment is intended to save $5.5 billion over a ten-year period, approximately 25 per cent of the $20.6 billion worth of savings demanded by the government when the SRP was launched in 2009.34 In fact, the official figures are misleading. First, they downplay the extent of savings the architects of the SRP plan to squeeze from the defence

33 Department of Defence, *The Strategic Reform Program: Making it Happen*, p. 15.
34 An additional $3.9 billion worth of savings were announced by the current Defence Minister, Stephen Smith, earlier this year, see Thomson, *The Cost of Defence: ASPI Defence Budget Brief, 2011-2012*, p. ix.
sustainment system. As Thomson explained, it is necessary to add a large chunk of the $586 million that Defence intends to save through adjustments to the budget’s Net Personnel and Operating Cost (NPOC) category to the declared Smart Sustainment figure because most of the NPOC reduction will be achieved by reducing the cost of sustaining new capabilities expected to come online before 2019. Second, they exaggerate the value of Defence’s planned overall savings because approximately $4.6 billion of planned ‘savings’ are disingenuous accounting tricks. The implication is that around 40 per cent of the SRP’s real savings are to be reaped from the sustainment system.

All else being equal, failure to secure savings means equivalent cost-pressures threatening delivery of Force 2030. The risk is that Defence will neglect or degrade requirements, undermining preparedness and defence self-reliance. It is possible to save money in the short-term by, for example, delaying repairs on a submarine, rifle, or jet, but decisions such as these reduce the amount of capability delivered as much as they reduce cost. Effectiveness falls and, all else being equal, efficiency stays where it was. In the best case, costs are deferred to the future. More likely, delayed repair and maintenance schedules inflate future costs, short-term ‘savings’ coming at the expense of long-term reductions in the Government’s TCO. These strategies represent a false economy but, as is argued below, both have been used routinely in the recent past. They are obviously counter to Defence’s depiction of Smart Sustainment as a deep and ongoing reform program.

In practical terms, achieving Smart Sustainment requires a division of labour between the Service Chiefs (who, as Capability Managers, are responsible for achieving 50 percent of the savings through demand management), Australian defence industry (who, as suppliers of sustainment goods and services, are responsible for achieving 30 percent of the savings through enhanced supplier productivity), and the DMO (which, as the agency contracting-out sustainment tasks to industry on behalf of the Service Chiefs, is responsible for achieving 20 percent of the savings through enhanced internal efficiency and better contracting). As this division of labour acknowledges, the defence sustainment system depends upon a partnership between the Defence sustainment function and Australian defence industry. It follows that Smart Sustainment’s success depends on enduring reform within each party.

36 Ibid., p. ix.
Reforming the Defence Sustainment Function

Australia’s defence sustainment system comprises a web of contractual and quasi-contractual relationships intended to ensure that three disparate organisations—the armed services, the DMO, and Australian defence industry—cooperate to deliver the sustainment outcomes valued by government. Within Defence, the senior leadership depends on the Service Chiefs (the ‘Capability Managers’) to sustain their respective armed services. The Service Chiefs, in turn, depend on the DMO (the ‘buying organisation’) to arrange sustainment inputs by providing commercial advice and managing commercial relationships. The DMO is accountable to the Minister through the Defence Diarchy, but it is a Prescribed Agency, formally and financially independent of the Service Chiefs. The arrangement is problematic because the DMO is supposed to work on behalf of the armed services. In theory, the Service Chiefs use quasi-contractual Materiel Sustainment Agreements (MSAs) to hold to account the System Program Offices (SPOs) responsible for sustaining specific types of equipment within the DMO. In fact, the Service Chiefs have only “poorly defined and weak” control over the SPOs. The DMO therefore plays a lead role in managing, not just administering, the sustainment system.

At the pinnacle of the defence sustainment system, government outlines valued sustainment outcomes through and with advice from Defence’s strategy group. Government’s self-reliance and preparedness requirements are translated into specific Readiness and Sustainability postures for each element of the ADF by means of the Australian Military Strategy, the Chief of Defence Force (CDF) Preparedness Directive, and the Joint Operations Command (JOC) Operational Preparedness Requirement. Having been provided with the government’s big-picture SRP targets, Defence establishes specific savings and reform targets, appointing additional senior managers to design and drive reforms as well as a Program Management Office (PMO) for each of the SRP’s reform streams. The key question is whether or not the Defence sustainment function can coordinate the cost-effective delivery of self-reliant preparedness with the delivery of savings demanded by the SRP.

The Pappas review identified two basic models for delivery of Defence’s sustainment function. On the one-hand, Defence could rely on the agents responsible for the sustainment system’s outputs, thereby empowering the Service Chiefs to drive change throughout the DMO and Australian defence industry. On the other hand, Defence could rely on the agents responsible for managing the sustainment system’s inputs, using the SPOs within the DMO to drive change forward into the armed services as well as backwards.

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38 This section is based on Chapter 14 of the Pappas Review, see G. Pappas, 2008 Audit of the Defence Budget (Canberra: Commonwealth of Australia, 2009), pp. 261-70.
into Australian defence industry. The key difference between the models is one of budgetary authority. Adopting the output-led model, the Service Chiefs would be granted control of the resources necessary to deliver the capabilities that they are nominally responsible for and, within a capped budget, they would be granted wide-ranging discretion to manage their business and vary arrangements with the DMO and industry. Adopting the input-led model, the Service Chiefs would provide the DMO with their sustainment requirements, but sustainment budgets would remain under the control of the DMO.

The output-led reform model provides clear accountability for outputs because the Service Chiefs, responsible for output delivery, would be able to control and shape their inputs. Failure to deliver directed outputs within budget would draw attention to managerial failure, providing a focal point for remedial and/or disciplinary measures. The output-led model also motivates the Service Chiefs to deliver outputs as efficiently as possible. Within a given budgeting period, savings could be channelled into other sustainment projects, and budgets could be re-negotiated year-on-year in order to generate an efficiency dividend that Defence’s central planners could re-direct to higher priority areas (such as acquisition). Neither responsibility for cost overruns or capability shortfalls could be palmed off elsewhere. Recognising these benefits, the independent 2008 Audit of the Defence Budget (the Pappas Review) recommended that Defence adopt an output-led model.39

The input-led reform model has two pronounced weaknesses that mirror precisely the strengths of the output-led model. Unless Defence’s administrative-tail is empowered to wag the war-fighting dog, it provides few incentives for the Service Chiefs to think cost-effectively. Moreover, it entrenches an ambiguous accountability framework, wherein responsibility for the sustainment system’s outputs are split. The input-led model’s strength is that it can be relied upon to cut the cost but not the cost-effectiveness of the sustainment system. By issuing the DMO a tight budget, Defence can guarantee against cost overruns, and by cutting the budget year-on-year, Defence can guarantee a pool of savings. The issue is that cost cutting occurs despite an inadequate accountability framework, meaning productivity will likely fall by the wayside. The input-led model cannot, therefore, produce a cost-effective defence sustainment system any more than belt tightening can improve one’s health. Tightening the belt might make it look as if one is lean but, actually, it just adds to discomfort.

In the commercial sector, businesses tend to use input-led models to promote temporary cost cutting and output-led models to promote the type of managerial innovation necessary to achieve enduring change in organisational behaviour. Given Smart Sustainment’s aim of “institutioning

39 Ibid., p. 263.
deep and ongoing reform that better sustains ADF capability at a lower cost”, it would have made good sense for Defence to adopt an output-led reform model. Yet, for the output-led model to work, the Defence budgeting and planning framework would have had to be transformed because, under the status quo arrangement, “the service chiefs control only a limited share of the resource necessary for the delivery of the capabilities that they’re nominally responsible for”. Hence, one can understand Defence’s decisions to ignore the Pappas Review and adopt an input-led reform model.

The Pappas Review acknowledged the difficulties involved in switching to an output-led management model, noting that it “would be a very substantial … change from today’s operation of Defence and a substantial shift from the standard public service management model”. The Rudd Government supported the shift, heralding it in the 2009 Defence White Paper and promising in Defence’s introduction to the SRP to grant the Service Chiefs “greater authority to manage their budgets and non-financial inputs”. By instituting an ‘outputs-driven budget’ it was argued Defence could ensure the “visibility, incentives, and authority” required to “change the way Defence operates, … achieve reforms, and put downward pressure on costs.” The argument was correct but the reform was delayed in the 2010-11 financial year and has now fallen off the agenda. Rather than empowering the Service Chiefs to drive reform, Smart Sustainment has been implemented by cutting centrally planned budgets and telling the DMO to live within its means.

Although the Service Chiefs are nominally responsible for the Defence sustainment function, real authority rests with the DMO. As Thomson concluded in his review of control and administration in Defence, “there’s no sense of an explicit commercial relationship between the DMO and the services for sustainment”. The armed services drive the cost of sustainment by using capabilities but only affect sustainment strategies “at the margins”. The problem is that the DMO is not assessed on its ability to deliver self-reliant operational capability so much as its ability to stick within budgets. The situation is exacerbated by the DMO’s inability to enforce cost-conscious behaviour within the armed services. In fact, even if the Service Chiefs were motivated to make cost-effective decisions they probably lack the capacity to do so under status quo arrangements. Within each budgeting period, approximately $5.5 billion is handed to the DMO by Defence’s senior leadership so that it can undertake sustainment work on behalf of the Service Chiefs. The Service Chiefs are meant to manage funds

41 Pappas, 2008 Audit of the Defence Budget, p. 263.
42 Department of Defence, Defending Australia in the Asia Pacific Century, p. 109.
45 Thomson, Serving Australia, p. 23.
by means of the quasi-contractual MSAs but the system has only been in place for two years. The Chiefs have not been equipped with the managerial infrastructure required to manage sustainment budgets, and they are not in the practice of doing so. They rely on the DMO, which is well placed to advise on the relative cost of sustainment options but “is poorly placed to advise on their relative value, taking into account ADF preparedness requirements”.46

The Rizzo Review demonstrated that Defence’s status quo sustainment arrangements are insufficient to reconcile the disjuncture between the DMO’s incentive to minimise sustainment expenditure and the Service Chiefs’ obligation to deliver self-reliant operational capability in accordance with the CDF’s preparedness requirements.47 Arguing that it is “essential that the Chief of Navy, as the Capability Manager, has clear accountability for Navy through-life capability and has the corresponding resources”, Rizzo concluded that MSAs “are currently poorly defined and weak”, providing the Service Chiefs little or no control or visibility vis-à-vis the DMO. Rizzo recommended the MSA be transformed so that it clearly defines the obligations of both Navy and the DMO and supported by “business like performance measures” in an “active ‘contract’”. For that arrangement to work, Rizzo noted, “Navy should substantially increase the resources committed to the capability management role”, while communication between the Service Chiefs, the armed services, and the DMO need to improve dramatically.48

Rizzo’s recommendations are sound, but they beg the question: should Defence attempt to squeeze significant savings from the defence sustainment system in the absence of an adequate accountability framework? Prudence suggests not. Presently, there is little incentive for executives within the DMO’s SPOs to focus on criteria other than short-term cost. They are not held responsible for securing preparedness requirements, and, so long as they stay within budget, have no fear of punishment when the sustainment system goes wrong. Operational flexibility is a significant cost driver within the defence sustainment system because it makes the rate of effort required from contractors uncertain. The majority of Smart Sustainment’s planned savings are related to better management of demand for sustainment services, implying a decline in operational flexibility. That might be an appropriate trade-off, but it is a trade-off the Service Chiefs should make in meeting the CDF’s preparedness requirements. The DMO is neither responsible for securing preparedness requirements nor technically competent to make decisions impacting directly on operational questions.

48 Ibid.
So what role should the DMO play in the defence sustainment system? There is no easy answer. As a Prescribed Agency, the DMO has little incentive to take a broad view of value. Instead, it focuses on narrow cost, schedule, and performance criteria. To secure the SRP’s objectives, decision-makers within the DMO are to be rewarded for generating savings. Given the frequency of staff-rotations and pervasive information asymmetries, it will be rational for them to play cost-shifting games by skimping on maintenance that does not have a short-term impact on preparedness and/or permitting the degradation of a system’s capabilities in ways that are hard to measure. Unless carefully managed, the agents within the DMO will tend to do less, take longer, and otherwise manage budget cuts by neglecting longer-term considerations and output delivery. The problem will become acute as pressure mounts to shave the cost of sustainment, freeing up funds with which to acquire Force 2030.

Although the Service Chiefs have retained formal responsibility for the Defence sustainment function, direct control over sustainment has been centralised within the DMO so that Defence can benefit from the integration of sustainment and acquisition activities. The benefits ought to be extensive because the vast majority of sustainment costs are determined by decisions made in the design, development, production, and acquisition phase of a capability’s life cycle. Additionally, one of the best ways to develop Australian sustainment capabilities is the use of competition for capital equipment contracts to encourage OEMs to establish in-country through-life support capabilities for the equipment thus procured. Yet, in practice, officials within the DMO have tended to respond to institutional incentives by focusing on the easily measured, short-term, and politically sensitive challenge of acquiring capital equipment. As Rizzo points out, this leads the DMO to focus disproportionately “on acquisition over sustainment” resulting “in ineffective outcomes”. For example, the DMO continues to sacrifice integrated logistics support products (including training, spares, technical documentation, etc.) when making acquisition decisions, the aim being to save a little on short-term costs and thus keep within tight budgets. The economy is false. Decisions such as these detract from whole-of-life capability, adding to the government’s TCO. They result in the unexpected collapse of capabilities, meaning the sustainment system is “unfit for purpose”.

Given DMO’s failure to integrate sustainment and acquisition and the Service Chiefs’ responsibility for preparedness, it is tempting to conclude that Defence should return full responsibility for sustainment to the armed services or specific ‘force elements’ with the armed services, probably a sub-

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49 Ibid., p. 44. Cole confirmed the argument, concluding that “sustainment is still being treated as a ‘poor relation’ compared to the generally higher-profile acquisition work”, see: Cole, Collins Class Sustainment Review, p. 10.

optimal policy solution. It would foreclose the option of exploiting synergies between acquisition and sustainment, and it would merely strengthen the institutional incentive that already encourages the DMO to transfer costs from acquisition to sustainment. So what should be done if we are to accept that it is a step too far to strip the DMO of all responsibilities related to sustainment?

Three reforms are essential. First, Defence should revisit its 2009 commitment to implement an output-led budgeting and planning model. Capped sustainment budgets and a reduced contingency provision increase the risk attendant to poor management. As a high-stakes savings program demanding year-on-year cost cutting, the SRP will make short-sighted decision making more, not less, attractive. The Rizzo and Cole reports show that Defence’s pledge that Smart Sustainment “must not compromise quality and safety” or “transfer costs to other areas” is insufficient because quality is routinely compromised and costs are routinely transferred under status quo arrangements.\(^{51}\) Second, Defence needs to reverse the recidivist tendency to publish less and less meaningful information about annual preparedness targets in the annual Defence Portfolio Budget Statements and annual preparedness outcomes in the annual Defence Reports to Parliament.\(^{52}\) As Wylie has suggested, the Defence portfolio should advise Parliament what its expenditure on sustainment actually achieves in terms of ADF preparedness.\(^{53}\) To this end DMO reporting to Parliament on sustainment expenditure needs to be explicitly linked to Defence reporting on preparedness outcomes in the annual Defence Report. Third, as Wylie has also pointed out, the Defence Portfolio has yet to implement Parliament’s requirement, set out by the Joint Committee of Public Accounts and Audit, that Defence’s Annual Report to Parliament include information on purchaser-provider arrangements like the MSAs between the Service Chiefs and the CEO DMO.\(^{54}\) Conforming to this long-standing requirement would not only enhance Defence accountability: Parliamentary and public scrutiny would also provide the Service Chiefs and the CEO DMO a compelling incentive to ensure the MSAs serve their intended purpose.

**Reforming the Defence-Industry Partnership**

It is now appropriate to turn attention away from the demand side of the defence sustainment system and to address the question of supply. Thus, this section of the article focuses on the Defence-Industry partnership, asking how Defence should engage with industry to secure Smart Sustainment’s savings while meeting preparedness requirements, driving

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\(^{51}\) Department of Defence, *The Strategic Reform Program: Making it Happen*, p. 16.

\(^{52}\) See Thomson, *Serving Australia*, p. 43.


\(^{54}\) Department of Prime Minister and Cabinet, *Requirements for Annual Reports for Departments, Executive Agencies, and FMA Act Bodies* (Canberra: Commonwealth of Australia, 23 June 2010), p. 7.
down the Government’s TCO, and ensuring investments sufficient to self-reliantly sustain Force 2030.

Australia’s Defence-Industry partnership is vexed because relationships between the DMO and industry are often adversarial and ridden with suspicion. On the one hand, industry suspects that decision makers within Defence fail to act on the basis of robust cost/benefit assessments, in part because they are guided by ill-informed prejudices and ideological predilections that detract from the perceived significance of Australian defence industry. On the other hand, officials within Defence and analysts within Australia’s leading strategic policy institutes allege that the Australian defence industry is a rent-seeking vested interest, the implication being that industry’s views can be safely ignored. The relationship is obviously more complicated than this but the caricatures contain elements of truth. Time and again, independent reviews have highlighted bad decision-making throughout the Defence sustainment function and bad habits have so far proved impervious to (admittedly weak) reform initiatives. Equally, it would be naïve to assume Australian defence industry is motivated by anything other than profit. So long as profits are ethical, the motivation is legitimate. Indeed, Defence depends on Australian defence industry’s profitability to attract and retain skilled labourers needed to sustain the ADF.

Although the Service Chiefs are responsible for sustaining their respective forces, the DMO has assumed the lead role in designing and implementing Smart Sustainment reform. Despite Defence’s pledge that Smart Sustainment reforms would be “tailored to fit specific circumstances”, the DMO is developing a standardised ‘Sustainment Management Model’. The centrepiece is a new approach to ‘Productivity and Performance Based Contracting’ (PPBC). As Shireane McKinnie, a senior DMO official, stated in February 2011, the DMO is developing “a standardised approach to Productivity and Performance-Based Contracts for use in DMO support contracts” that will become “a key enabler for the Smart Sustainment reform stream”.

While the DMO has yet to settle on a final design for its standardised approach to sustainment contracting, detailed publications and public comments indicate the trajectory of policy development.

According to the Exposure Draft of the PPBC Handbook released by the DMO in mid-2011, a Performance-Based Contract (PBC) is “a contract that is structured to motivate the contractor to achieve particular outcomes, rather

55 Department of Defence, The Strategic Reform Program: Making it Happen, p. 16.
than the performance of individual activities”. 57 The DMO is not new to PBCs, and they have been used very successfully to support the Aerospace Systems Division’s sustainment business for nearly six years. But the Aerospace Systems Division’s PBC regime has focused on the cost-effective delivery of self-reliant preparedness, not cost-cutting. The DMO has therefore unveiled a ‘Next-Generation Performance-Based Contract’—a Productivity and Performance Based Contract (PPBC)—which it hopes will combine “the performance-related benefits of a PBC with further initiatives to improve productivity and reduce the TCO over the longer term”. 58 According to the DMO, the PPBC framework has been “derived from traditional ... PBCs, which have been found to provide sound performance management but have not resulted in cost reductions to Defence”. 59 As such, the PPBC is the mutant child of the SRP.

The DMO distinguishes its ‘Next-Generation’ model of PPBC from the ‘transaction-based’ or ‘regulatory’ contracting model it has traditionally used to procure sustainment outcomes. It is generally accepted that performance contracting is preferable to regulatory or transaction contracting when an organisation wishes to promote enduring managerial innovations and lean processes. Simply put, performance contracts promote the characteristics typical of an output-led management model. The devil is in the detail. Briefly comparing three approaches to contracting—regulatory, transactional, and performance—to the DMO’s model of ‘Next Generation’ PPBC highlights the latter’s concerning features.

Traditionally, Defence has procured sustainment outcomes using contracting models that focus on short-term price competition and rule compliance, specifying, for example, how many people with what kinds of skills need to be hired by a contractor; what techniques, technologies, and materials the contractor should use, and when particular activities prescribed in the contract need to be completed. Such a transactional or regulatory approach to contracting is based on three assumptions: (i) that there is one best way to fulfill the purpose of a contract; (ii) that officials know exactly what that best way is; (iii) that officials are able to specify all relevant details of that best way through the medium of a contract. It also reflects a belief that government-business relations are inevitably adversarial, that contractors attempt to cheat the government in every possible way at every possible time, and that officials exploit any opportunity to collude with contractors in

57 Department of Defence, Managing Contractor Performance under Productivity and Performance Based Contracts (The PPBC Handbook) (Canberra: Commonwealth of Australia, 2011), p. 3.
58 Ibid., p. 4.
59 Ibid., p. iv.

The problem with regulatory contracting is that contractors are neither rewarded for producing an outcome that helps achieve the public purpose nor punished for failing to do so. Instead, contractors are rewarded for complying assiduously with all details of the contract and are punished for any failure to observe regulations, even if failure has no significant effect on the relevant public purpose. In fact, under a regulatory contracting regime contractors can be rewarded for finding loopholes, taking short cuts that were not expressly forbidden, even if doing so undercut the contract’s purpose. Transaction contracts suffer from many of the same weaknesses as regulatory contracts, but they also reward the contractor for each unit of work performed, creating a perverse incentive to maximise contract cost. For example, in a transaction-based maintenance contract for an aerospace component, a contractor is paid for each repair carried out. With a degree of profit built into each repair, the more repairs performed, the greater the overall profit made by the contractor. The problem is that more transactions mean more maintenance downtime and a decline in preparedness for the ADF. In the worst-case scenario, a contractor could rationally develop and/or modify capital equipment in order to increase the demand for preventative maintenance and/or the rate of failure.

Regulatory contracts afford a high degree of certainty about what will be done, but they provide very little certainty about what will be delivered. Transaction contracts afford a high degree of certainty about what will be done, but they promote inefficient behaviour. Thus, it is now widely acknowledged that regulatory contracts maximised probity, rigidity, and ‘top-down’ control at the expense of collaboration, flexibility, and ‘bottom-up’ initiative. It is also recognised that the assumptions underpinning regulatory contracting are unduly optimistic about the government’s knowledge and capabilities, blind to the uncertainty that afflicts all but the simplest of projects, and self-fulfilling in so far as they promote adversarial relations and a litigation culture.\footnote{For a fuller discussion, see R. Behn and P. Kant, ‘Strategies for Avoiding Pitfalls of Performance Contracting’, \textit{Public Productivity and Management Review}, vol. 22, no. 4 (June 1999), pp. 470-89.}

Theoretically, performance contracting provides a high degree of certainty about what will be delivered as well as the cost of delivery, the trade-off being that the government abandons control over the delivery of contract outcomes. Performance contracting rejects the assumption that there is one best way to perform a task, let alone that there is one best way appropriate in every circumstance. It also recognises that people far removed from service delivery (such as contract managers within a government agency)
are unlikely to work it out. Rather, performance contracting aligns risk and responsibility, the assumption being that the best way to motivate agents is to provide them with key performance indicators (KPIs) and then let them manage themselves. The assumption radically alters the role of the contract and the expectations of the contracting parties. To continue the aerospace maintenance example, performance contracts focus on outcomes such as the availability of serviceable spares, not the transaction that occurs when an item is returned to serviceable stock. Thus, contractors are paid for a specific level of spares availability rather than conforming to a particular maintenance process or performing a given number of repairs. Guided only by performance requirements, contractors are free to determine how spares are sustained, efficiency being promoted by an incentive structure tied to performance measurements. Government’s buying agency are also evaluated on the basis of whether or not the contractor provided the outcome contracted for, not whether or not the contractor conforms to labyrinthine regulatory frameworks. In theory, performance contracts promote cooperation because all parties have a direct interest in producing valued outcomes.

The DMO pledges that performance contracting will benefit both sides of the Defence-Industry partnership. By instituting performance contracting, the DMO claims it can enhance the cost-effectiveness of sustainment while driving down costs. It also claims that Defence’s “better performing suppliers” will benefit through “higher rates of profitability” and “greater continuity of workload”, assuming that short-term performance-contracts are accompanied by extensions to work based on “award terms”. The DMO counters concerns that Australian defence industry might be at risk of shrinking along with the Defence sustainment budget by arguing Defence plans to redirect savings from Smart Sustainment towards the acquisition of capital equipment that Australian defence industry might help to deliver.62

The DMO’s standardised approach to performance contracting is intended to be scalable (to the maximum extent practicable) across a wide range of sustainment contracts (i.e. whole of system, sub-system, components, common items, etc.) and also applicable (to the maximum extent practicable) across all environments (i.e. land, sea, and aerospace).63 In order to promote the cost-effective delivery of self-reliant operational capability, the DMO intends to rely on KPIs linked to monetary and non-monetary contractual rewards and remedies (such as ‘incentive payments’, ‘at risk’ amounts, and ‘target cost incentive models’) that vary in response to performance and motivate contractors to achieve required outcomes. Thus

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established, a PBC (based on a firm-priced or target-price contract) offers the contractor the possibility of increased profitability if the contractor can improve the efficiency of work within the contracted price. The problem is that ordinary PBC framework provides no mechanism to claw back the savings required by the SRP’s architects. Provisions enabling Defence to claim a share of the savings reaped by defence industry therefore distinguish the DMO’s ‘Next-Generation’ PPBC from the frameworks used overseas.\(^{64}\)

To claw back savings, the DMO has developed a set of contract mechanisms it refers to as ‘off-ramps’ and ‘reward terms’. Off-ramps will allow the DMO to jettison contractors failing to contribute to the SRP’s savings objectives, whereas award terms will allow the DMO to retain contractors meeting or exceeding expectations and sever relations with all others.\(^{65}\) Together, these mechanisms provide the DMO with a unilateral right to threaten contract termination and thereby force contractors to renegotiate terms once investments have already been made and work is underway. The DMO hopes to squeeze Australian defence industry, the argument being that, in light of the SRP’s savings objectives, an

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award term enables some of the limitations of firm-priced contracts to be overcome by enabling price extensions below the initial firm price to be incorporated into a contract extension.\(^{66}\)
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As the DMO stated elsewhere,

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when seeking to achieve ongoing cost reductions … the Government may require unilateral authority to reset the productivity parameters [governing the PPBC] [so as] to ensure further improvements.\(^{67}\)
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That policy directly contradicts one of the seven principles agreed by the DMO and the Australian Industry Group (AIG) in November 2007, namely that “contract terms should not allow a party to undermine fundamentally the essential bargain between the parties through the exercise of unilateral discretion”.\(^{68}\) Nevertheless, as the then CEO DMO put it in 2009, “that’s the way we’re heading and … everyone can gear themselves up for that now.”\(^{69}\)

Off-ramps and award terms are intended to maximise ‘competitive tension’ over a materiel system’s life of type (LOT), thus providing the DMO with a whip to spur thrift in industry. The DMO hopes to offer sustainment contracts for an initial four-year period, including two or three years of guaranteed

\(^{64}\) Department of Defence, The PPBC Handbook, pp. 3-4.
\(^{65}\) The policy was revealed in Department of Defence, Building Defence Capability, pp. 47-8. For a more up-to-date discussion of the DMO’s views, see Department of Defence, The PPBC Handbook, p. 61.
\(^{66}\) Department of Defence, Next Generation Performance-Based Support Contracts, p. 112.
\(^{67}\) Ibid., p. 82.
\(^{68}\) Ibid., p. 81.
\(^{69}\) CEO DMO speech at the 2009 Australian Defence Magazine Congress Meeting, Hyatt Hotel, (17 February 2009), cited in Ibid., p. 112.
work and the one or two years that might be required to push a contractor down the off-ramp. For that reason, the DMO’s approach to performance contracting can best be characterised as ‘short-term’. The DMO plans to measure contractor performance throughout the first two or three years of work, undertaking an ‘award term review’ at the end of the period. If successful, the contractor will be retained for another year, followed by another ‘award term review’. Each review provides the DMO an opportunity to rake back savings, and the theory is that the process can be repeated until a materiel system reaches the end of its life of type or until a contractor fails to meet the DMO’s expectations. If a contractor fails to receive an award term, the contract will enter a one or two-year off-ramp period, wherein the DMO will rely on the original contractor to maintain capability while searching for a replacement. 

Put simply, the DMO plans to drive down the cost of sustainment by benchmarking, assessing, rewarding, punishing, and opening for competition sustainment contracts, thus forcing contractors to adopt the most efficient work processes and to be honest about their underlying costs.

The DMO’s vision has not been properly thought through. According to Rizzo, it has been developed “largely … in isolation from the Services”, a fact revealed by the ‘Next-Generation’ PPBC framework’s myopic focus on short-term commercial risk. It is unlikely the DMO’s planned approach to performance contracting will provide a compelling incentive for Australian defence industry to make the investments necessary to sustain Force 2030. Instead, it will create perverse incentives for industry to scrimp and save by, for example, transferring costs to other elements of the defence sustainment system, neglecting work that is difficult to measure, and dodging responsibility. The result will be inflation in the Government’s TCO, decline in the ADF’s preparedness, and collapse of the nation’s defence self-reliance, which, as is argued above, depends on the investment strategies of Australian defence industry. Most problems relate to the short-term focus of the ‘Next-Generation’ PPBC framework. Performance contracting is wise, but it should not be structured in a manner that promotes counterproductive short-term decision-making.

The most obvious problem with short-term contracting is that it creates an over-riding incentive to cut costs even if doing so is detrimental to the government. Having secured a contract and having been alerted to the fact that future work depends on whether or not a firm manages to cut costs within a two-year window, contractors have a strong incentive to play cost-shifting games, deferring expenditure and neglecting tasks so that costs fall outside of a contracting window. In particular, short-term contracts create perverse incentives to take short cuts on those elements of sustainment that are intended to provide mid- to long-term benefits. Industry will respond to

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70 Ibid.
these incentives, shirking responsibilities in ways that are difficult to discern but no less real. It will not be in the interest of the SPOs within the DMO to police this sort of behaviour particularly fiercely, because short staff rotations and the incentive to secure the SRP’s savings targets provide a good reason to turn a blind eye. In fact, experience in other fields, such as construction, suggests that the widespread use of short-term performance contracting encourages the selection of ‘cheap’ tenders, representing poor ‘value-for-money’ over a long-term perspective and which tend to become more expensive because of poor quality work and contractual contingencies inserted by the contractor to defend profitability. As the economist Henry Ergas argued in an essay on efficiency in Defence, taking an organisation-wide perspective, an outcome in which work takes slightly longer and costs slightly more over the short term might be superior to one in which decision makers benefit by shifting costs onto future users. It is significant that long-term performance contracts counteract the incentive to transfer costs to future users because the future user is oneself.

Under a regime of short-term performance contracting there is also the risk that industry will shirk by neglecting responsibilities that are difficult to measure. For a performance contract to work, it must have clearly defined and measurable outcomes directly traceable to the public purpose the contract is supposed to support. The DMO hopes to use short-term PBCs to spur productivity, but it is often exceptionally difficult to measure the efficiency of the sustainment system. According to the independent Helmsman Sustainment Complexity Review conducted in mid-2010, the ADF uses systems with sophisticated combat and mission systems that are “more complex than most Australian commercial systems”. As Ergas argued, sustaining advanced weapons systems is often, an undertaking of exceptional difficulty, beset by uncertainties and risks. Contemporary weapons systems are among the largest and most technologically sophisticated engineering projects our societies undertake, involving millions of interdependent parts, each technically demanding in its own right and then needing to inter-operate effectively and reliably under combat conditions.

Complex systems have many interdependent and often hidden dimensions, meaning that attempts to sustain one element of the system impact other elements of the system, generating a dilemma economists refer to as the ‘multi-tasking’ problem. Where multi-tasking matters, Ergas explained, it is ‘hazardous’ to provide “strong performance-based incentives to decision-

makers” because doing so leads to incoherent and/or sub-optimal decisions. In fact, Ergas argued that it is often better to “allow agents to shirk on work effort than to have them under-produce dimensions of output that though difficult to contract for are highly valued.”\textsuperscript{76} That means the DMO might be better off issuing long-term performance contracts that provide an incentive to perform work even if it is hard to measure because the consequences of neglect at \( t_1 \) have an impact on profitability at \( t_2 \), making neglect irrational.

The DMO’s short-term focus will also stifle innovations that are likely to reduce the Government’s TCO. As the DMO acknowledged, the American approach to sustainment “recognises that long-term gains and reductions in TCO can be made by encouraging Materiel System and support process improvements”.\textsuperscript{77} The US program of ‘reliability-based logistics’, for example, encourages contractors to invest in the modification of components for reliability improvements, the effect being reduced failure rates, reduced maintenance costs, and improved availability within a firm contract price. It also promotes significant efficiencies by improving materiel systems through modifications and replacements to manage obsolescence. Changes such as these are difficult under a system of short-term contracts because systems modifications and process innovations are often expensive to implement. Companies will not pursue them unless they are certain they can reap a long-term gain. Although the US system of Performance Based Logistics (PBL) relies on a system of ‘off-ramps’ and ‘award terms’, these are used to promote the cost-effective delivery of capability, not year-on-year cost-cutting that bites into income and profitability. Thus, contracts are issued for a period of five years, after which point ‘award terms’ signify a contractor’s right to retain a contract except in the event of underperformance. The assumption is that contractors will only make productivity enhancing investments if they are awarded contracts long enough to ensure a reasonable return on investment.

The DMO cannot expect industry-led investments likely to yield long-term productivity gains if it intends to use short-term contracts to undermine industry’s profitability every two years. The DMO might claim the government can cover these sorts of investments, but it is far from clear that the DMO has the expertise or willingness to invest on industry’s behalf. Even if it did, the solution blurs accountability. Better to provide industry with a longer-term contract structure that provides a compelling incentive to make productivity enhancing investments, and supplement that approach with government-led ‘spend to save’ initiatives only where absolutely necessary.

The assumption that Defence can easily create ‘competitive tension’ in markets dominated by monopolies and pseudo-monopolies is also problematic. Although there are many Australian firms that can undertake

\textsuperscript{76} Ibid., p. 125.
\textsuperscript{77} Department of Defence, \textit{Next Generation Performance-Based Support Contracts}, p. 87.
simple sustainment tasks, such as those required to maintain the Army’s fleet of trucks and trailers, monopolies dominate the market for the technologically advanced systems that the ADF relies upon to maintain its military advantage. Supplier diversity is thus inversely related to the complexity of the system that needs to be sustained. Barriers to market entry include intellectual property, directed support arrangements, system knowledge, and the sort of tacit expertise that can only be gained on-the-job. Monopolies preclude ‘competitive tension’, and when monopolies are ‘natural’ it is expensive to fight against them. Most of the monopolies in the Australian defence industry are natural monopolies resulting from emerging as a result of high barriers to entry and the limited demand for their services. To create significant ‘competitive tension’ in markets dominated by monopolies, the government would have to subsidise new players, supporting market entry. That policy would be expensive, especially in the short-term, and it is unlikely to be cost-effective.

Competition cannot simply be spurred by threatening to ‘terminate’ contracts. Termination is a remedy that is best used infrequently. Important considerations include the lead-time required to replace contractors, the disruption to services caused by termination, and the cost of acquiring relevant intellectual property from the original equipment manufacturer (OEM) or whoever was hitherto responsible for sustainment. The DMO hopes that the threat of termination is sufficient to force Australian defence industry to hand over savings reaped through productivity, but it is likely that the threat will simply add to friction in the Defence-Industry relationship by encouraging a dangerous game of commercial brinkmanship. Although the DMO recently used termination to address some particularly egregious incidents of industry failure, taking, for example, the contract to sustain the F/A-18 away from Boeing and handing it to BAE, unilateral termination is a strategy rarely appropriate except as a remedy to the worst kind of performance-management situations. If used too often, termination corrodes trust, undermining the Defence-Industry partnership. Monopoly market structures mean that the DMO will also undermine the government’s credibility if it relies on the threat of termination too frequently. As a DMO analyst acknowledged,

the award term process remains sensitive to the degree of available competition. The contract-management framework would be severely undermined if the Government Representative had to grant an award term extension, even if the contractor did not meet the required criteria, because there was no other party that could perform the required work. Likewise, the process would be undermined if the award terms were not granted and only the incumbent contractor was in a position to bid for the replacement contract. Where there is very limited competition … then other contract rewards and remedies may be more appropriate than reward terms.78

78 Ibid., p. 125.
If the DMO insists on attempting to maximise competitive tension in markets dominated by monopolies or pseudo-monopolies it will likely fail to achieve its savings and performance objectives. When dealing with natural monopolies, productivity is best promoted through structures that reward the monopoly for productivity improvements over the long-term and therefore make the most of the monopolist’s strengths, including economies of scale, intellectual property, deep experience, financial stability, and technical expertise.

The DMO also believes it can dodge the monopolies that dominate Australian defence industry by slicing and dicing contracts. “For example”, a 2010 discussion paper argues,

> there may only be limited competition for the support of a complete platform, but there may be significantly increased competition at the lower levels of the product breakdown structure for that system.\(^79\)

It is true that the use of lower-level contracts would reduce the government’s exposure to monopoly rent seeking and enhance diversity of supply, but the strategy would also blur accountability. The DMO lacks the experience, skills, or resources necessary to perform the Product Support Integration (PSI) function effectively, and, as Rizzo demonstrated, it struggles to manage a large number of contractors engaged on a short-term basis.\(^80\) Slicing and dicing contracts reduces the coherence of decision-making, and by placing financial barriers between teams working on the same sustainment projects it adds to the risk attendant on poor communication, organisational, and technical complexity. Slicing and dicing coupled to a system of short-term contracting would lead to the worst of all possible worlds. Not only would projects be left in a state of flux, each contract team would have a strong incentive to try and transfer costs to one another, thus maximising their individual prospects of securing award terms to the detriment of cost-effective preparedness. It might make sense to slice and dice contracts in specific circumstances, separating, for example, the maintenance of aircraft engines from aircraft platforms, but there is often a trade-off between a focus on cost-effective preparedness and short-term savings.

Recent experience suggests that failure to estimate the scope of work accurately when soliciting bids for contracts has prevented the DMO from driving down the cost of sustainment throughout a system’s LOT. So-called scope uncertainty is sometimes the result of contractors underbidding to ‘buy into’ a market, the aim being to expand business once a foothold has been established. The shift towards short-term contracts would promote precisely that business strategy because it would increase the stakes for prime contractors and reduce barriers to entering sustainment markets. Putting to

\(^79\) Ibid., p. 114.
one-side contractor misconduct, it is evident that different sustainment tasks have different scope drivers, including variations in system usage, variation in the system’s maturity, engineering failures, and variation in the demand for training services. These factors are all beyond the control of the DMO and industry. Scope uncertainty is also a product of system complexity. Advanced defence systems typically have thousands of interdependent products that need to be sustained independently and as part of a system-of-systems. Interdependence of a materiel system’s components and sub-systems means that entire sustainment projects are often interdependent, and complexity means that interdependencies are difficult to predict. The demand for engineering changes is also determined by a set of factors (operational requirements, threat perceptions, and obsolescence) beyond the control of either the DMO or industry. In fact, as the DMO acknowledged, “the number of engineering changes required over LOT and the scope of each change are virtually impossible to define upfront”. Software support is another facet of sustainment that “can be difficult to determine upfront”. Factors such as these make the sustainment system unpredictable, but the DMO nevertheless assumes it can issue contracts that have firm scope boundaries.

To come up with anything like a ‘firm’ contract scope, necessary to hold a contractor’s feet close to the fire, the DMO needs to be able to strictly limit the range of products and services included in each contract as well as the rate of effort required to support them. Each prospective contractor also needs to be able to scope the work associated with each product. That is difficult when contractors lack experience working with particular systems, as is the case in markets dominated by natural monopolies. The factors mentioned in the previous paragraph mean that scope uncertainties tend to be pervasive. When work is omitted from a contract’s initial scope the DMO has to negotiate the risk attendant on unexpected requirements for Survey and Quote (S&Q) services. Within a performance-based framework, S&Q services create an opportunity for contractors to earn additional profit and serve as a source of performance relief. Frequent recourse to S&Q work has the potential to undermine whatever benefits might derive from ‘competitive tension’ because, assuming significant competition for a sustainment contract and a good chance that S&Q work will emerge during a given contracting period, it is rational for firms to under-bid when tendering their offers in the hope that profits can be recaptured through ad hoc work they will either secure automatically or be well positioned to compete for. Shifting to another supplier is almost always out of the question once a sustainment contract is underway, and for that reason S&Q work tends to be sole-sourced to the primary support contract. That strategy maximises accountability for outcomes yet minimises the DMO’s leverage when negotiating price. It provides an opportunity for contractors to ‘rebalance’ the

81 Department of Defence, Next Generation Performance-Based Support Contracts, p. 23.
terms of a relationship, undermining the efficacy of a short-term performance contracting. The DMO might be eager to create independent performance frameworks for S&Q work, competing them on the ‘open’ marketplace, but it would be naïve to assume that the government could switch frequently between contractors without undermining accountability and the Defence-Industry partnership. The DMO cannot afford to work its way through defence contractors as if it were a film star working its way through partners. The strategy prevents high-performing relationships and will scare off the small batch of eligible suitors. As is now widely accepted in the private sector, to get the most from contractors performing complex tasks a vendor has to build strong, cooperative, symbiotic relationships. Focusing on the defence sustainment system, it is better to offer long-term whole-of-system support contracts that include the majority of sustainment tasks within a fixed-price contract, especially when dealing with mature systems that contractors know well. Contracts such as these transfer risk away from the government on to the contractor, reducing the need for S&Q work while promoting the search for profitability through materiel system and work process improvements that enhance productivity and reduce the TCO.

The DMO’s public comments rarely mention the challenge of developing the industrial capabilities required to meet the government’s self-reliance targets. Generally, the DMO tries to divert attention away from the question by suggesting that the government will benefit from ‘better value for money’ and ‘lower contract prices’ and that Defence’s ‘better performing suppliers’ will benefit through ‘higher rates of profitability’ and “greater continuity of workload if a contract is accompanied by extensions to work based on so-called award terms”. Taken as a whole, the DMO claims that improved competitiveness will benefit Australian defence industry.

The DMO’s claims do not hold up. Although short-term performance contracting might allow the DMO to squeeze savings from industry sufficient to meet Smart Sustainment’s objective, the quest for savings has been planned in a manner likely to cause a lot of harm. The arguments highlighted in this section of the article suggest that short-term performance contracting is unlikely to promote ‘better value for money’ or reductions in the Government’s TCO. It is not good enough for the DMO to assert that year-on-year cost cutting is the route to efficiency when the defence sustainment system already suffers from scrimping, saving, and bad management. Although ‘better performing suppliers’ might benefit from brief spurts of heightened profitability, profits will be nevertheless be depressed as the DMO claws back efficiency dividends, restricts the demand for sustainment services, and maximises competitive tension in order to drive down costs. Although a small number of firms are likely to rest easy in the confidence that they can secure year-on-year contract extensions from the DMO, they are likely to be firms that have extraordinarily secure monopoly positions. Secure monopolists will be able to resist the DMO’s attempts to cut back on their profitability. Other firms will fear being underbid by competitors, and
their investment strategies will become increasingly conservative. Contractors will simply resist productivity enhancing measures if the DMO aggressively harvests savings because they will expect that any period of heightened profitability will be brief.

The irony of Smart Sustainment is that the more successful the DMO is at spreading fear of losing contracts and clawing back industry’s profits, the less successful industry will be when it comes to hiring and retaining the skilled personnel required to sustain the ADF. The DMO must recognise the fact that Australian defence industry needs to compete for the skills required to support the ADF and cannot therefore be taken for granted. As the 2010 defence industry policy stated: “Industrial capacity needs to be planned, built, managed, and continually re-shaped—industry must plan, and must be able to plan, to ensure it can play its part”. The DMO pledges that short-term performance contracting will boost productivity and therefore create opportunities to benefit from Australia’s expanding defence budget. The assurance is misleading. Although 60 percent of the DMO’s budget is spent in Australia, most is spent on sustainment. A declining proportion is spent on in-country capital acquisition, but it is that sort of expenditure that has tended to encourage the local subsidiaries of the foreign multinationals that dominate Australian defence industry to make major investments in infrastructure and skills. So long as Defence continues to spend most of its acquisition budget overseas, it needs to provide industry with a compelling reason to invest in the skills and facilities required to sustain the ADF. Defence already struggles to maintain Australian industrial capability because of the small size of the Australian defence market and the cyclical ‘boom and bust’ characterising defence procurement. Short-term contracting will increase uncertainty and reduce profitability, making a bad situation worse.

Defence’s extant approach to fostering Australian industrial capability is explained in the ‘Toolkit’ for the Australian Industry Capability (AIC) program which applies to all Defence procurements of $50 million or above as well as projects with a Defence mandated industry requirement. Generally, the plan has been to establish through-life support capabilities when acquiring capital equipment. The problem is that the DMO has tended to trade-off investment in long-term in-country sustainment capability for reduced acquisition cost. Recognising the difficulty of building Australian defence industry, the 2009 White Paper once again envisaged “encouraging international prime contractors to take up opportunities for local industry participation in international global supply chains”. Whatever its short-term

82 Department of Defence, Building Defence Capability, p. 15.
83 Department of Defence, Force 2030, p. 129.
85 Department of Defence, Force 2030, p. 129.
commercial benefits, this strategy seems inadequate to ensure Australia has the industrial capability required to sustain the future-force. That Australian firms have helped design and manufacture components for the Joint Strike Fighter Project does not guarantee that Australian defence industry will be able to sustain the aircraft throughout its life-of-type. There is in any case an unacknowledged tension between sustainment-oriented local industry involvement in capital equipment acquisition contracts and the kind of short-term performance contracting envisaged by the DMO. It is possible to pursue one policy or the other, but not both policies simultaneously.

The government should abandon short-term contracts when it comes to sustaining complex materiel systems. Instead, attention should focus on improving the management framework for through-life-support and the re-integration of acquisition and sustainment. Structured as long-term performance contracts, a framework such as this would provide industry with a strong incentive to invest in the skills, system modifications, and workplace processes necessary to cost-effectively sustain the ADF. Five years would be an appropriate minimum initial contract period, providing sufficient time for contractors to learn about cost-drivers and accurately measure performance, a recovery period if performance is marginal and the government wishes to give extra time to provide the opportunity for the contractor to improve, and, if necessary, time to implement a replacement contract. As a DMO analyst advised in 2010:

A minimum initial contract period of five years is suggested because this represents the best balance between Defence’s goal to reduce TCO, informed decision-making, resource utilisation, and tender costs.

Administrative costs are important. If the DMO issues contracts based on an initial term of two or three years it will have to commence a new request for tenders (RFT) only 12-18 months after having signed a contract. Given “the costs and personnel involved in a typical tendering activity” a DMO analyst assessed that the strategy “would seem to be an inappropriate use of resources”, burdening both the DMO and industry, both of whom ultimately rely on the government to recover costs. That same resource constraint suggests that award terms should be awarded for more than one year, as does the fact that the length of award terms has a direct impact on the timeframe within which contractors calculate the return on any upfront investments they might consider making in materiel systems, people, or workplace processes. All else being equal, longer award terms mean larger investments. The one-year award terms that have been heralded by the

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87 Department of Defence, Next Generation Performance-Based Support Contracts, p. 123.
88 Ibid., p. 123.
DMO will provide little incentive to invest. The DMO needs to reconsider the balance between the price and performance of the sustainment system and accept that savings are best reaped gradually, over the long-term.

The Rizzo Review suggests that concerns about the DMO’s vision for sustainment contracting is well grounded in recent experience. Rizzo reported that the DMO’s attempt to slice and dice sustainment contracts for maritime systems increased the resource burden within the DMO and industry, proved “inefficient when applied to frequently recurring maintenance work”, and “created a short-term approach from Industry” that failed to “encourage investment”. Rizzo argued: “Ship maintenance is a long-term need and warrants long-term partnerships with Industry, ideally for the life of a ship”. As a general rule, Rizzo suggested that “ship maintenance contracts should be in place for five years, with a rolling extension option for successful delivery”. Longer contracts would not only encourage “Industry to build a knowledge-base of the ships”, it would also encourage investments in “workforce skills and infrastructure” and, due to incentives to innovate and greater certainty, “assist with lowering the cost of ownership”. Rizzo suggested that enhancing industrial productivity would enhance efficiency of the entire sustainment system, the implication being that the government does not need to aggressively claw back profits from industry to benefit from industry’s improved productivity. Rizzo also assessed that the model of long-term system-level performance contracting used by the DMO’s Aerospace Systems Division required much less ‘administrative effort’ than the model of short-term contracting used by their colleagues responsible for the Maritime Systems Division. Recalling that 20 percent of Smart Sustainment’s planned savings are intended to come from improving administration, this is significant.

Revising Smart Sustainment and the SRP

So far, Smart Sustainment has reaped a small crop of savings. But the “first two years of work have been about the ‘low-hanging fruit’”. Much more is required to secure the SRP’s savings target. As such, there will be a “sharp increase in the Smart Sustainment savings curve … in the next couple of years.” The DMO insists that there is no trade-off between the cost and performance of the defence sustainment system; that productivity reforms have the potential to increase the ADF’s preparedness while costing the government less. That may or may not be the case. It is impossible to determine the scope or nature of inefficiencies in the defence sustainment

90 Ibid., p. 37.
92 Ibid.
system on the basis of publicly available data, and it is unlikely Defence has any firm foundation for its hope that it can reap between $5 and $6 billion dollars worth of savings from that system between now and 2019. Even if it does, there is no guarantee that ‘savings’ will actually represent ‘efficiency dividends’. As has been argued throughout this article, the current approach to Smart Sustainment is likely to promote scrimping and saving but unlikely to promote the enduring managerial innovations necessary to boost productivity.

Instead of presiding over a general belt tightening exercise, the architects of Smart Sustainment should use the SRP as an opportunity to fix the defence sustainment system. They should move away from input-led matrix management and the status quo model of prescriptive, regulatory contracting by adopting two principal reforms. First, the defence sustainment function should be improved by instituting an output-led management framework that empowers the Service Chiefs to manage capabilities and drive innovation throughout the sustainment system. Second, the Defence-Industry partnership should be improved by entering into strategic partnerships with Australian defence industry focused on the cost-effective performance of the sustainment system, not just inputs and price. Whereas short-term contracting promotes shirking and cost-shifting the main path to profit in a firm-priced long-term contracting regime leads to process innovations that reduce input costs for a fixed (or gradually diminishing) level of total revenue. The DMO would therefore be well advised to place more emphasis on long-term performance contracts that align industry’s interests to the government’s. Part of this package of reforms might include a greater reliance on prime-contractors serving as PSI, the DMO playing a diminished yet nevertheless important role in the defence sustainment system focused on protecting the Service Chiefs from commercial and legal risk. Whatever happens to the DMO, it is essential for Defence to reintegrate acquisition and sustainment.

The SRP’s pre-history suggests that Defence should take seriously the risk of getting reform wrong. The Defence Reform Program (DRP) of the late-1990s was nothing if not ambitious, the aim being to generate a mix of

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93 Although Defence produces data about the cost of sustaining either fleet items and/or bundles of fleet items, it has failed to provide a data set that can be compared over time. Figures within the annual Defence Portfolio Budget Statement (DPBS), for example, are distorted by fluctuations related to: (i) one-off costs that vary year-on-year (e.g. major engineering work); (ii) the frequency of payments to contractors; (iii) year-on-year variation in the ADF’s rate of usage and accuracy of demand forecasting; (iv) year-on-year variation in the cost of sustainment activities contracted-out to industry and performed ‘organically’ by members of the ADF; (v) the effect of operational supplementations; (vi) foreign exchange and commodity price volatility. Moreover, figures are provided for bundles of fleet items rather than individual fleet items. There is no way of being certain what is included in each bundle year-on-year. Finally, Defence’s accounting practices have changed throughout the period for which data is available, meaning inter-temporal trend analysis is extraordinarily difficult.

recurrent and one-off savings worth approximately 10 percent of the defence budget without undermining the nation’s self-reliant operational capability. Defence’s poor budgeting and planning processes make it impossible to calculate precisely the DRP’s consequences but the program is remembered as short sighted and damaging. Rather than enhancing efficiency, the DRP cut the cost of defence by eroding the ADF’s support services and military career paths. Although it was designed to free up funds to reinvest in expanded operational capabilities, “no new battalions were raised, not a single additional vessel set to sea, and no extra aircraft took to the air”.

When Australia was caught off guard by events in East Timor, Defence was found lacking. The ADF depended on support from distant allies to conduct operations in Australia’s immediate operating environment, exposing self-reliance as lacking. The Lowy Institute’s Graeme Dobell argued, “the chant in the barnyard must be ‘DRP bad, SRP good’”, but the chant is not reassuring. The SRP suffers from the DRP’s principal flaws: it is being driven by Defence support agencies, not the Service Chiefs, and depends upon a model of contracting that promotes short-term cost-cutting and threatens to poison the Defence-Industry partnership. The lesson of the DRP is that the sustainment system is a strategic asset requiring careful management. It should not be treated as if were a piñata, there to be beaten until sufficient ‘savings’ have fallen to fund acquisitions.

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95 Ibid., p. 133.