



Australian Industry Group
Defence Council

Australian Industry Group Defence Council

Submission

to the

Defence Industry Policy Review

October 2006

1. Introduction	1
2. Issues for Consideration	2
3. Ai Group Defence Council Strategy	2
4. Survey of Australian Defence Industry	3
4.1 What strategic military advantage does Australian defence industry provide?	3
4.2 Impact of Australian Unique Requirements.....	4
4.3 How will this change with the next generation of military technology?	4
4.4 How important are overseas linkages?.....	5
4.5 Management of intellectual property and security	5
4.6 Importance of local design and/or manufacture	6
4.7 Dependence on Defence as a customer	6
4.8 Technology and costs	6
4.9 Industry workload and capacity	7
4.10 Flexibility of local defence industry to changing demand	7
4.11 Research, development and innovation.....	8
4.12 Exports	8
4.13 Is competition sustainable?	9
4.14 Skills shortages – impact and response	9
4.15 Does competition deliver value for money?	9
4.16 Defence contracting and risk allocation	10
4.17 The Defence Capability Plan	10
4.18 The Kinnaird reforms	11
4.19 The Defence-Industry relationship.....	11
4.20 Defence industry policy	12
5. Post Kinnaird Developments.....	12
6. Issues for Consideration by the Defence Industry Policy Review	13
6.1 Australian Participation in Platform Building Programs	13
6.2 Better Defining Risk Sharing	16
6.3 Defence and Industry Working Together to Achieve Success.....	17
6.4 Team Australia	18
6.5 Exploring New Acquisition Methods.....	19
6.6 Skills Shortages and SADI.....	20
6.7 Improving Levels of SME Involvement in Capital Equipment Acquisition and Exports	21
7. Recommendations	21
7.1 Clarify defence industry capability requirements	21
7.2 Improve procurement processes.....	22
7.3 Promote further opportunities for exports and involvement in global supply chains	22
7.4 Develop improved opportunities for SMEs	22
7.5 Addressing skills shortages	23

Australian Industry Group Defence Council

Submission to the Defence Industry Policy Review

September 2006

1. Introduction

The Australian Industry Group Defence Council welcomes the opportunity to make a submission to the Defence Industry Policy Review, which was announced by the Minister for Defence, Dr Brendan Nelson, in May 2006.

Ai Group Defence Council would stress at the outset the importance of having a capable and effective Australian defence industry, which is essential to Australia's security. This has been clearly demonstrated over recent years by the critical role played by Australian defence industry in equipping and sustaining the Australian Defence Force (ADF) throughout a period of high operational tempo. Given the challenges of the war on terrorism, combined with other ongoing uncertainty and tensions within Australia's area of direct strategic concern, it is clear that Australian defence industry will continue to be at the forefront of support to the ADF.

What Australian defence industry is principally seeking from the Defence Industry Policy Review is a commitment from the Government to ensure policies and practices are put in place to maximise Australian defence industry involvement in defence contracts. In order to achieve this objective, there is an urgent initial requirement to clarify the defence industry capabilities which the Government believes are essential for meeting Australia's defence requirements. This will provide a baseline for Australian industry to more confidently invest in desirable research and development (R&D), tooling and skills.

The Kinnaird Review of defence procurement recommended a number of important measures to improve engagement between Defence and Australian industry, including with SMEs. Ai Group Defence Council welcomed those measures and has worked closely with Defence, particularly the Defence Materiel Organisation (DMO) and Capability Development Group, to ensure that the Kinnaird recommendations were appropriately implemented. Considerable progress has been made in improving that engagement. Ai Group commends Dr Steve Gumley and LTGEN David Hurley, and their respective teams, for starting the work to improve the situation. The current Defence Industry Policy Review provides a timely opportunity to examine progress on Kinnaird implementation and how well the relationship is developing between Defence and industry, and to identify any additional adjustments to further improve it. This would include identifying issues which continue to be of concern to Australian defence industry.

2. Issues for Consideration

At the Defence + Industry Conference 2006, the Chairman of Ai Group Defence Council, Paul Johnson, called on the Government to maximise Australian industry involvement in all phases of major defence contracts, as a principal goal of defence industry policy. He identified a number of issues which Ai Group members believe need to be addressed if Defence and Australian industry are to reach the shared goal of having ongoing highly responsive industry support to the ADF. In addition to having the Government identify particular capabilities needed to meet Australia's defence requirements, Paul Johnson highlighted:

- Australian participation in platform build programs generating crucial domain knowledge, including in systems architecture, systems engineering and systems integration with its implicit software development requirements
- The need to better define risk sharing between government and industry, while actively promoting a culture of working together to achieve successful procurement outcomes
- Having Defence and other departments, such as the Department of Industry, Tourism and Resources (DITR), working more closely together to assist Australian industry, including SMEs, to export its products and to gain opportunities in the global supply chains of defence multinationals
- Continuing to explore acquisition methods - whether they be sole source or various forms of competitive tendering - which allow contracting flexibility appropriate to the nature of specific projects
- Addressing the ongoing serious skills shortages across a range of professions and trades, shortages which are having an impact on procurement and support costs for many companies; and
- Improving opportunities for increased involvement of small and medium sized (SMEs) companies in Defence contracting, noting that many Australian SMEs contain pockets of world-class capabilities as evidenced by their success in winning Joint Strike Fighter (JSF) work against global competition.

3. Ai Group Defence Council Strategy

In putting forward our submission to the current Review we would emphasise that, in late 2005, Ai Group Defence Council initiated its own study to better understand the challenges facing Australian defence industry and the policy implications that flow from this, with the aim of providing the Government with a common defence industry position on these important issues. The Council

strongly believed at the time that this analysis was urgently required to position both Defence and industry to more effectively work together in closer partnership to meet Australia's defence needs.

The Defence Council engaged Dr Mark Thomson from the Australian Strategic Policy Institute (ASPI) to undertake research and to design a survey to gauge the views of local defence industry. Council members would like to acknowledge the analysis and work undertaken for the council by Mark Thomson which contributed towards the preparation of this submission.

4. Survey of Australian Defence Industry

The survey of Australian defence industry was undertaken in the first half of 2006. It involved interviews with the CEOs of almost every prime defence contractor, as well as a number of Tier One and Two contractors, and SMEs. In total, 25 separate interviews were undertaken.

The survey covered a wide range of issues including the impact of changing technology, emerging commercial pressures, including skills, DMO procurement processes and defence industry policy. The results of the survey are detailed below.

4.1 *What strategic military advantage does Australian defence industry provide?*

In almost all cases, survey respondents drew direct links between the current capabilities of the Australian defence industry and ADF's war fighting capabilities. Broadly, the advantages identified by respondents fell into five categories:

- Practical Support
- Self-reliance
- Through-life support development
- Capability edge; and
- International links

Every platform in the ADF is supported to some extent by Australia's defence industry. This dependence has increased in recent years as outsourcing has shifted work out of the ADF into industry. The types of support range from routine mechanical repair and maintenance, and software support on the ADF's most advanced platforms through to the supply and through-life support of sophisticated, world-class equipment, such as the Bushmaster vehicles, Minehunter Coastal and advanced network-centric warfare systems. None of these could be practically, or cost effectively, replaced by overseas support.

Australian defence industry provides a range of goods and services offering a considerable degree of defence self-reliance to the nation to deal with a range of security and peace keeping challenges. This has been highlighted in

recent years as Australian defence industry has provided substantial support to the ADF in meeting its high operational tempo requirements, including in Afghanistan, East Timor, Iraq and the Solomon Islands.

As the cost of weapons systems has continued to grow, the trend has been to retain platforms in service for longer than in the past. Australian industry plays an essential role in upgrading and modifying legacy equipment to ensure that it remains capable against emerging threats.

Australian defence industry plays a major role in adapting overseas equipment to operate in Australia's unique operating environment and aligning it with ADF doctrine. Where necessary, custom designed systems and sub-systems are manufactured to meet unique ADF specifications and requirements, which cannot be met by global market standard systems and products.

The commercial links of Australian-based firms provide reach-back to Original Equipment Manufacturers (OEMs) that are essential to meeting ADF requirements. In addition, in several important niche areas, Australian firms export defence services and equipment to our allies and other countries, which deepens our interdependence and broadens our defence linkages.

4.2 *Impact of Australian Unique Requirements*

Most respondents stated that the demand to satisfy Australian unique requirements had not been decisive in shaping local defence industry. Rather, it was judged that Australia's defence industry base had been shaped by a combination of practical factors and the demands of self-reliance.

Equally, however, most respondents conceded that Australian-unique requirements had been an important factor in particular projects and expressed some scepticism about the need for such requirements. Respondents argued that industry should be involved earlier in the capability development process to help close the gap between aspiration and practicality. Most respondents were concerned at the unnecessarily detailed specification apparent in a number of defence procurements.

4.3 *How will this change with the next generation of military technology?*

In general, respondents said that it would probably get more difficult to retain the current range of defence industry capabilities because of the rising cost and technological sophistication of military equipment, as well as growing sensitivities over the security of intellectual property (IP) and desire to design and build more platforms offshore. Generally speaking, the challenge was seen to be greatest in the aerospace sector but less so in the maritime and land sectors.

Conversely, some respondents pointed to the development of open-system architecture as a conduit through which local industry could adapt and modify

advanced platforms while respecting the core integrity of overseas intellectual property. The important point is that respondents felt strongly that in most cases, local industry should be able to deliver the outcomes the ADF needs – albeit through different approaches to those used today.

Many respondents said that local industry has an important role to play in connecting the disparate platforms of the ADF into a networked capability. Since no other country has the same mixture of legacy and new platforms as Australia, this is a problem whose solution cannot be imported. This task will likely see a growing emphasis on the systems engineering sector in the coming years.

4.4 *How important are overseas linkages?*

There is one thing that all respondents agreed upon. The shape of defence industry in Australia will be determined very much by the policies and decisions that are made in the coming years, that is why this Review is so important.

Respondents reported a highly variable dependence on offshore inputs, which ranged from raw materials through to high-tech components and sub-systems. In many cases, the critical link to overseas suppliers was through the intellectual property necessary to support ADF platforms. In general, respondents assessed that dependence on imports was either remaining static or growing. With few exceptions, it was observed that in the final analysis, all ADF weapons systems relied on either foreign parts or IP to some extent.

Many of the larger firms stressed the importance of reaching back to parent companies for intellectual property and, where appropriate, skilled personnel. Being able to leverage large overseas corporations for solutions to local problems was highlighted as greatly increasing what could be achieved in-country.

4.5 *Management of intellectual property and security*

All respondents saw the management of intellectual property as fundamentally important to their commercial activity and ability to support the ADF. As a general rule, larger firms have developed the processes necessary to satisfy US International Traffic in Arms Regulations (ITAR) while most smaller firms were extremely frustrated in their attempts to do so, finding the compliance requirements onerous, and at times unjustifiable. While all respondents acknowledged the principle of maintaining the security of sensitive military technology, some thought that current regulations amounted to de facto protectionism on the part of the US, and that it impeded the entry of new players into the defence sector.

Almost all respondents expressed frustration at the time it takes to get security clearances for staff and many had experienced difficulty with restrictions on the nationality of personnel.

Most respondents thought that IP would be increasingly important in the future, both commercially and from a security perspective. So much so, that a number of respondents assessed that protection of IP could prevent consolidation in key segments of Australian defence industry.

4.6 *Importance of local design and/or manufacture*

Respondents agreed that local industry involvement in the design and manufacture of weapons systems greatly enhanced the ability of local industry to support and modify equipment through the life of the platform. In fact, in many cases it was seen as a necessary precondition for doing so – especially when it came to upgrading advanced equipment. Even where it was difficult for local firms to play a major role, for example in large international programs, early involvement by local industry was regarded as essential to developing effective and efficient through-life support arrangements.

More generally, through-life support and manufacture/assembly were seen as complementary activities that enhanced industry sustainability and maintained the individual and corporate skills needed to support the ADF.

Although some respondents assessed that involvement in design and manufacture would get more difficult for local firms in their sector, most respondents thought that Australian defence industry could retain the ability to manufacture or at least assemble systems in country in many instances – it was ultimately a question of economies of scale.

4.7 *Dependence on Defence as a customer*

There was a high level of consistency on this question from which two general trends emerged. First, the larger prime contractors tend to be highly dependent on military work with only limited engagement with the civil sector. In most cases, these same firms hoped to reduce their dependence on defence work and expand their civil component. Although some progress was being made, few thought that this could be easily done.

Second, SME defence firms tend (somewhat out of necessity) to maintain a greater proportion of civil work. Having said that, a number of smaller firms said that they were almost exclusively defence focused because of the difficulty of mixing civil and defence work; the problem being that the quality standards demanded by Defence are often incompatible with competitive commercial activity.

4.8 *Technology and costs*

There was general consensus that the cost of acquiring modern military equipment was rising but that, in many cases, the cost of maintaining equipment was falling because of improved reliability and maintainability. However, while acquisition costs were rising, they were doing so because much higher levels of military capability were being delivered. Improved

reliability of equipment was assessed as most apparent in aerospace systems including especially jet engines and, to some extent, avionics.

An important consequence of improved reliability is that the support arrangements for future weapons systems may be quite different to those presently employed. In some instances, it may be more practical and cost-effective to simply switch-out faulty sub-systems for return to the original equipment manufacturer than to maintain the capability for repair in-country. Under such a regime, self-reliance involves prudent stock-piling of spares. In some areas, like jet aero-engines, increased reliability is likely to drive the civil sector to consolidate maintenance work into a limited number of global hubs. This arguably points the way for the military sector in the future, including for Australia becoming a regional maintenance hub for military aircraft engines.

4.9 *Industry workload and capacity*

Assessments of the match between current industry capacity and promised future work in the Defence Capability Plan varied significantly between respondents, reflecting the range of specialisations covered. While all respondents acknowledged that the planned 3% real growth in defence spending was a positive development, some noted that much of the planned investment would almost certainly flow offshore resulting in only modest levels of new work for local industry.

Notwithstanding the planned increase in investment, many respondents assessed that there would be insufficient work to sustain the current industry structure in specific sectors. This, it was judged, would lead to either a contraction of some existing players or else a consolidation into a smaller number of firms. Notwithstanding these judgements, other respondents thought that IP considerations would hamper consolidation in many areas irrespective of workload.

There was little support for the notion that the government should intervene – through managed procurement or otherwise – to cause a consolidation to take place. Many respondents said that the market would deliver the necessary outcomes if left to itself. A few believed that the government had to provide strong leadership on the matter. Many said that the existing sector plans, which had been developed jointly between industry and Defence, simply needed to be implemented.

4.10 *Flexibility of local defence industry to changing demand*

On one level, respondents agreed that local defence industry can be highly responsive to short term demands and challenges. Many cited the recent, highly successful, quick acquisitions that had met urgent operational requirements for the ADF. Some respondents argued that the greatest impediment to responsiveness was, in fact, the procurement processes employed by Defence rather than the capacity of industry. On the positive side, the Rapid Prototyping Design and Evaluation (RPDE or 'Rapid') scheme was cited by several respondents as a successful model for how Defence and

industry can achieve quick results by cutting through paperwork and focusing on results.

On another level, many respondents were cautious about how quickly major programs could be initiated. Moreover, it was stressed that many defence industry capabilities, if allowed to dissolve, would be very expensive and time consuming to reconstitute.

As a general observation most respondents highlighted the vital role played by SMEs in assisting prime contractors to respond to changes in workload. Consistent with this, the view was expressed by many respondents that SMEs often possess a high degree of intrinsic flexibility to adapt and redirect effort.

4.11 *Research, development and innovation*

Almost all respondents reported that process innovation was a routine part of their business strategy, in particular, by finding more efficient ways to deliver goods and services while maintaining high quality standards.

Irrespective of size, many firms reported involvement in product innovation. In most cases, such research and development was undertaken under contract to Defence but often also as an in-house initiative. A number of respondents reported working with DSTO on projects including through the Capability Technology Demonstrator program. In most cases, DSTO was seen as a valued partner although some respondents expressed frustration with the bureaucratic overheads involved in working with them.

4.12 *Exports*

With a couple of important exceptions, respondents said that exports represented a limited component of their turnover. The exceptions included several larger firms that are able to export niche products and a number of smaller firms that export either sub-systems or specialist services in large volumes. Some saw the development of exports as critical in providing the economies of scale necessary to ensure the viability of some products.

Many respondents stressed that the international defence market was highly protected and that it was very difficult to secure export contracts without active support from the government and ADF. Although recent export support initiatives were acknowledged as valuable, a number of respondents expressed the view that the government would need to do much more if it wanted exports to increase beyond current levels. The appointment of a Defence Materiel Advocate was seen by many respondents as a highly valuable step forward, and the Team Australia approach to the JSF program was cited as an excellent example of how the government could open doors for local industry into global programs.

A number of respondents observed that a virtual precondition for the export of defence products from Australia was acceptance of the product into ADF service.

4.13 *Is competition sustainable?*

The clear consensus view in the survey was that competition was being over-employed and that alternatives should always be explored. In particular, it was argued that the default recourse to competition had resulted in a fragmentation of the local defence industry – a fragmentation which, in many instances, imperilled the sustainability of important industry capabilities. Even given promised increases to defence capital investment over the coming decade, most respondents assessed that while competition had a role to play in future defence procurements, it would be counterproductive to Defence itself, if it merely creates fragmentation and simply promotes ‘competition for competitions sake’

4.14 *Skills shortages – impact and response*

With few exceptions, respondents said that they were feeling the impact of the national skills shortage in both professional and trades areas. Those who did not report a problem tended to have the advantage of offering attractive cutting-edge work and/or were located in regions where the labour market was less tight.

Some of the firms that reported problems attracting and retaining personnel said that they had, so far, not passed on additional costs to Defence. Often this was because they were locked into fixed price contracts, or alternatively, because of improving productivity within their firms.

All respondents reported a strong commitment to staff development and training. The typical proportion of turnover spent on training and development was in the vicinity of three to four percent. Many respondents said that maintaining varied and professionally challenging work was a key part of retaining skilled personnel in the current environment. Some expressed frustration that repeated delays in defence projects made it difficult to keep personnel who, in a tight labour market, had the option of going elsewhere to find greater job security. Some observed that the relative complexity of dealing with defence procurement compared with the commercial environment reduced the attractiveness of working in the defence sector.

Respondent’s views of the Skilling Australia’s Defence Initiative (SADI) program were variable. Non-prime contractors expressed disappointment that they were not able to apply for SADI funds, and many respondents felt that the scheme required firms to shoulder a larger proportion of additional training costs than the program funded. Nonetheless, the general feeling appeared to be that SADI was a positive development, although many respondents expressed dismay at the amount of paperwork involved.

4.15 *Does competition deliver value for money?*

Most respondents were sceptical about whether competition was delivering value for money to Defence. Not only were current competitive procurement processes seen as overly cumbersome, slow and expensive to implement, but

it was argued that competition was often simply not the best tool to use, irrespective of the efficiency of the process employed.

A common point made by respondents was that there are well established alternative techniques including alliance contracting, partnering and open-book accounting that, if properly managed, would deliver both better value-for-money and improved industry sustainability.

Many respondents observed that the creation of 'artificial' competition had resulted in poor outcomes in the past.

Almost all respondents reported that the competition paradigm, as currently implemented, added substantially to the cost of doing business. Many expressed dismay at the ponderous volume of paperwork – sometimes running to volumes of pages – that was needed to respond to Defence solicitations. A number of respondents observed that this contrasted markedly with commercial practice.

4.16 *Defence contracting and risk allocation*

There was strong consensus that Defence contracting was a significant concern. Respondents saw current contracting practice as unnecessarily complex and time consuming to negotiate. A number of respondents observed that DMO contracts (along with the preceding solicitation processes) created a hurdle for new entry into the defence sector especially for smaller firms.

In terms of risk allocation, there was a universal concern that DMO was unrealistic in the level of risk it expected to transfer to suppliers and there was strong consensus in opposing 'unlimited liability'. Many respondents observed that DMO placed too great a reliance on formal contractual arrangements at the expense of developing trusting partnerships with suppliers.

Nonetheless, respondents were at least cautiously optimistic that the current review of contracting by DMO would result in a more workable regime – provided there was genuine room for compromise on risk allocation. Industry is certainly prepared to put whatever management effort is required to manage and mitigate risk, but Defence must work in partnership with industry in order to achieve a successful outcome for both sides.

4.17 *The Defence Capability Plan*

Most respondents saw the Defence Capability Plan (DCP) as a positive development and employed it as part of their own strategic business planning process. However, many expressed frustration with the frequent slippage of projects which, all too often, translated into additional costs for firms waiting to bid. Others, however, accepted that changes and delays were an inevitable part of doing business with Defence. Several respondents expressed scepticism about the DCP as a result of recent large acquisitions – like the C-17 Globemaster – that seemed to appear from nowhere.

Most respondents argued that the DCP gave insufficient attention to industry policy and that a more integrated approach was needed.

4.18 *The Kinnaird reforms*

Views on the Kinnaird reforms that followed the 2003 Defence Procurement Review ranged from ambivalence to cautious support. Some thought that it had made very little substantive difference from an industry perspective so far, while others were adopting a 'wait and see' approach. In many cases, respondents observed that the Reforms were focused on Defence's internal processes, and therefore were unlikely to directly impact the way industry did business with DMO.

4.19 *The Defence-Industry relationship*

Respondents expressed views on a wide range of aspects of the Defence-Industry relationship. The themes were:

(a) Health of the relationship

Although a couple of respondents reported that their relationship with DMO had improved in recent years, the majority of respondents assessed that the relationship had either remained static or declined. The most common concern expressed was that the relationship had become more adversarial and less cooperative at the working level. Nonetheless, some respondents did describe their relationship in very positive terms.

(b) Importance of individual relationships

Many respondents reported that their dealings with DMO hinged critically on the individuals involved on both sides. A wide variation was reported in the attitude of DMO project staff. Where a cooperative and trusting relationship had been established, respondents expressed satisfaction. Unfortunately, many respondents said that this was often not the case. A number of respondents expressed frustration that project staff in DMO changed quickly, making it difficult to maintain and deepen the relationship.

(c) Bureaucracy

Most respondents expressed frustration at the extent of process and paperwork that characterised doing business with DMO. Particular concerns were raised about the lack of delegation of authority within DMO that meant that decisions were very slow in coming. More generally, frequent delays at every stage of the procurement process were cited by a large number of respondents as a matter for concern. A significant common concern among respondents was that the bureaucracy created a culture of risk aversion that hindered good outcomes. There was a general sense that an effective DMO project manager would rise above systemic impediments, while a poor one would shelter behind them.

(d) Doing business with DMO

Many respondents observed that a lack of commercial acumen by DMO personnel compromised the organisation's ability to deal effectively with business, while a lesser number observed the same regarding technical expertise. A common suggestion from respondents was to increase both the tenure and commercial experience of DMO project staff.

4.20 Defence industry policy

The most common response concerning industry policy was along the lines of 'What defence industry policy?' In one way or another, most respondents expressed the view that defence industry policy had lost direction and was drifting. Many respondents observed that the 1998 policy had failed to gain traction, as had the sector plans that followed the then Minister's speech at the Defence + Industry conference in 2001.

Consistent with this, most respondents said that it was unclear what the rules of the game were for industry. In particular, the extent to which Australian content does, or does not, attract priority in defence procurement decision making was uncertain. As a general rule, respondents said that it made good economic sense to support local industry when spending the defence dollar.

A number of respondents expressed frustration with the apparent lack of resources and influence within Defence of DMO's Industry Division. Conversely, several respondents spoke highly of the Department of Industry, Tourism and Resources (DITR), noting that it played an important role in facilitating exports.

The clear view of respondents was that it was time to clarify defence industry policy and drive it forward. A precondition for the success of the policy was ensuring that it was fully integrated with capability development and procurement processes.

5. Post Kinnaird Developments

As indicated earlier, progress is being made in improving the opportunity for Australian defence industry to engage with Defence.

Clearly, the work undertaken by DMO, led by Steve Gumley, to improve cost and scheduling performance, as well as to lift the quality of project management skills within DMO, has provided an important baseline for improving the overall quality of project outcomes. Industry looks forward to further adjustments being made, particularly in regard to improving the project skills and approaches being taken by DMO project personnel, as well as longer term engagement by them within particular, critical project offices.

The Defence Council also acknowledges that the Capability Development Group, led by LTGEN David Hurley, has striven to improve opportunities for early engagement with industry, particularly in the development of the recent DCP.

6. Issues for Consideration by the Defence Industry Policy Review

In the introduction to this paper and in the summary of the survey of industry leaders, reference was made to a number of issues which Ai Group Defence Council believes ought to be addressed by the Defence Industry Policy Review. This section will expand on the key issues, with suggestions for dealing with them.

6.1 *Australian Participation in Platform Building Programs*

Ai Group Defence Council members have been concerned for some time with Defence's emphasis on through-life-support at the expense of Australian production of major platforms. This is particularly so in the context of the current debate about whether the two new amphibious ships will be built in Australia. Our experience is that while Australian involvement in construction may require some higher levels of initial outlays, there are significant cost benefits down stream during through-life upgrades and modernisation activities. These benefits include retention of IP and other domain experience, and the development of enhanced capabilities in systems development and systems integrations as a result of lessons learned during construction.

On 28 March 2006, in evidence before the inquiry by the Senate Foreign Affairs, Defence and Trade References Committee into naval shipbuilding in Australia, RADM Trevor Ruting said that "Our strategic priority is really to be able to repair and maintain our ships, submarines and their systems to be able to keep them operational during any national security activity in which they are involved and particularly, obviously, in conflict." Ai Group Defence Council strongly believes that such an emphasis pays insufficient attention to Australian industry's ability to be able to build such naval platforms in Australia.

Since the mid-1980s, Australian industry has successfully constructed 24 complex naval platforms:

- 2 FFGs at Williamstown, Victoria
- 10 ANZAC Frigates at Williamstown
- 6 Collins-class submarines at ASC in Adelaide
- 6 Minehunter Coastals at ADI's facility in the Hunter

Studies undertaken by ACIL Tasman for the Ai Group Defence Council highlighted the many benefits arising from strong Australian government commitment to local construction.

The ANZAC frigate project, which cost more than \$5 billion for 10 frigates, with Tenix as prime contractor:

- generated between \$200 million and \$500 million in additional annual GDP
- generated between \$147 million and \$300 million in additional annual consumption
- generated around 7,850 full-time equivalent jobs
- engaged over 1,300 Australian and New Zealand companies during construction
- value added from Australian and New Zealand companies was estimated to represent over 72% of the contract's value, worth over \$4 billion
- increased substantially Australian businesses involvement with new technology, including through R&D
- generated exports of over \$1 billion through the sale of two frigates to New Zealand; and
- through Australian construction, it is estimated that savings of the order of \$520 million will accrue over the service life of the ship

The Minehunter Coastal (MHC) project, which saw six Italian-designed 'Huon Class' vessels constructed at a cost of over \$1 billion, with ADI as prime contractor, is also a fine example of the benefits which arise from strong government commitment to Australian industry involvement, realising:

- a contribution of up to \$887 million to GDP
- a contribution of \$492 million to consumption
- either directly or indirectly an average of more than 1,800 full-time equivalent jobs each year of construction
- at least 3,180 full-time equivalent jobs in the Hunter region alone
- that 25% of Australian businesses involved in MHC receive technology transfer

- that for each additional \$100 million spent by the Australian Government on the MHC generated a further \$195.6 million in national output and 836 Australian jobs
- enhanced export potential for participating Australian companies
- increased productivity for Australian companies involved in MHC project
- increasing the ability of those companies to undertake other defence work; and
- enhancing the capability of those companies to provide in-service support, including mid-life upgrades and modifications

While these studies show substantial benefits to the Australian economy overall, the results also highlighted that if Australian defence industry exports more, thus allowing stronger investment in R&D and skills development, Australian defence industry will become more globally competitive, a more efficient supplier into international global supply chains and, therefore, Defence itself will also benefit.

The success of ADI's Bushmaster vehicle, currently serving with the ADF in Iraq, is another example of the quality and ability of Australian industry to design and construct a substantial platform to meet the challenging and demanding requirements of the ADF.

Nulka, which was designed and developed in Australia to defend naval vessels from missile attack, is now being exported by BAE Systems Australia. It is a fine example of bringing together the expertise and intellect of DSTO with Australian industry to develop a sophisticated weapons system with world-class capabilities.

Development and construction of such platforms, particularly those with state-of-the-art combat systems, such as the Collins class submarines and Anzac frigates, has helped thousands of Australian companies, especially SMEs, to acquire domain knowledge which has contributed massively to the ADF's benefit. That expertise needs to be sustained, nurtured and encouraged by sound defence industry policy which is focussed on creating new opportunities for Australian industry participation in capability development.

In addition to constructing all of these platforms, all have to be maintained to meet the strategic priority enunciated by RADM Ruting, to be able to repair and maintain them, and many others, in operational security activity, including in the Middle East. The critical issue brought out in the industry survey is that skills and resources brought to bear in the build programs ensures and reinforces capabilities for the repair, maintenance and through-life upgrade phases.

Given Australian industry's consistent success over the past 20 years in major defence platform construction and systems development and integration, the Ai Group Defence Council believes the Federal Government must announce a stronger industry policy commitment to Australian construction of many major platforms. This will provide greater certainty for industry in developing its plans to become involved in major projects, continue to develop its skills and expertise in complex systems development and integration, and offer ongoing work for Australian industry providing thousands of jobs, especially in regional areas of Australia.

6.2 Better Defining Risk Sharing

One prime CEO in commenting about defence procurement in the Survey said "As a taxpayer I want good financial management and that means taking some risks. If you're not taking risks you're paying too much."

Ai Group Defence Council believes that, over recent years, Australian defence industry has been asked to accept more financial liability as a consequence of accepting a higher level of responsibility for risk. This is particularly so in a number of major equipment projects containing a high level of design and development, and consequent high level of risk. Examples include the Collins-class submarine combat system integration and JORN .

Whilst industry is prepared to shoulder considerable responsibility for meeting demanding ADF requirements, while performing on budget and on schedule, it is a fact that, on occasions, underdeveloped specifications or overly ambitious schedules, or both, fail to take account of the complexity of many systems, including combat system integration into both naval and air platforms.

Some progress is being made to strike a better balance on the sharing of risk through, for example, the alliance contracts for the Air Warfare Destroyers (AWDs) and Rapid Prototyping, Development and Evaluation Program (RPDE or 'Rapid'). However, the Ai Group Defence Council believes that such an approach needs to be extended to other capability development projects, particularly when the actual level of risk emerges through the development phases, prior to full production. .

The original Collins class submarine combat system experience is an example of a failure to clearly identify early in the program's life, the complexity of the combat system integration, associated risks and apportionment of risk sharing.

Whilst there is no doubt Australian industry has been involved in a number of development programs which have run into difficulties, it's also the case that overseas experiences have more often fared no better. An example is the original F-111 program in the U.S., which was delayed by a number of years due to cracks in the swing-wing .

A strong message to the Defence Industry Policy Review is that purchasing capabilities off-shore which have substantive development aspects, does not necessarily provide any higher level of certainty that major platforms will be delivered on-time and on-schedule, nor that the level of risk associated with any particular program will be ameliorated.

Australian industry's engineering, systems and technical expertise, as proven in the ANZAC frigates, Minehunter and Nulka programs, attests to the competence and ability of Australian industry to meet demanding ADF capability requirements.

Ai Group Defence Council believes that further attention needs to be given by Defence to the subject of risk determination and sharing. It is essential that there be a more even-handed approach across all major development projects, with both industry and Defence better defining and sharing the risk associated with developing major platforms and systems.

6.3 *Defence and Industry Working Together to Achieve Success*

"The best projects are the ones that are most collaborative". (CEO Prime Defence Contractor - Ai Group Defence Council survey.) This has been shown to be true in the joint Defence and Australian industry 'RAPID' program.

Following a successful trial, the partnership between Defence and industry, involving a number of leading Australian companies - such as ADI, BAE, Raytheon, Tenix and SAAB Systems - which aims to accelerate the acquisition of emerging capabilities, will be funded by up to \$60 million for a further three years.

'Rapid', which commenced operations in February 2005, has, according to Bruce Billson, Minister Assisting the Minister for Defence "...demonstrated the value of joint industry and Defence partnering."

'Rapid' has matured into an organisation which is delivering enhanced capabilities for the ADF. It draws people, technology, facilities and contextual information from Defence and 83 industry participants, including Defence primes, SMEs and academia, together under a shared goal. 'Rapid' is a collaborative, non-competitive environment where Defence and industry work together to develop new solutions, principally through incremental enhancement of existing capability.

In contrast to the 'Rapid' experience, the Ai Group Defence Council notes that a number of recent decisions have been made with either little, or no, prior engagement with Australian defence industry. For example, in the case of acquisition of a new strategic air transport capability, Australian industry, including many SMEs, believed they stood to gain greater benefit from involvement in the evolving A-400 program. Unfortunately, Australian industry was neither briefed, nor invited to comment, on the options being considered to meet this capability requirement. This was contrary to industry's

understanding of the intent of the Capability Development Advisory Forum (CDAF), through which Australian industry views were to be taken into account early in the capability development phase for all major projects.

As one CEO stated in the Ai Group Defence Council survey, "The apex of all this stuff is relationship management." It cannot be stressed enough that the most successful major projects, such as the Anzac frigates and MHCs, are those where the relationship between the prime contractor and the customer (Defence) is a positive, co-operative one.

Refinements to the new Defence Capability Plan (DCP) are providing a stronger underpinning for industry, allowing a greater degree of confidence for investment, including in skills development and training. These developments have been welcome news for Australian defence industry. But more needs to be done to build on that good start.

Ai Group Defence Council believes there is a case for identifying, beyond the current DCP period (post 2014), the sorts of capabilities which are seen as being essential to sustaining the ADF, including those which should be developed in-country. The recently revamped CDAF can provide a sound platform for doing so, but it will require strong commitment from all participants - Defence and industry - to ensure that the higher degree of certainty being requested by defence industry is able to be achieved. This could lead to development and publication by Defence of a clear strategic plan which identifies these essential capabilities.

Ai Group Defence Council recognises that Steve Gumley has given considerable priority to up-skilling and improving the performance of DMO project managers and project staff. But more needs to be done to change some poor cultural habits, with some project people failing to grasp the benefits of co-operation over confrontation. Defence Council also recognises that, in some cases, industry needs to lift its performance as well.

6.4 *Team Australia*

The "Team Australia" experience for the Joint Strike Fighter (JSF) program is a sound example of having government departments working closely with Australian industry to assist them to win JSF contracts.

The approach being taken by both Defence and DITR, with Team Australia, has encouraged a number of Australian firms, including SMEs to position to win JSF work. The involvement of these departments in this way has provided an opportunity for a number of Australian firms, including smaller defence businesses to position to become part of the global supply chain being developed under the JSF program.

The decision to appoint Major General Jim Molan to "open doors" to promote defence exports is welcome. However, further work needs to be done to identify specific defence capabilities which offer export opportunities and to

strengthen the role of Defence and other relevant government agencies in promoting Australian defence exports.

Ai Group Defence Council strongly supports application of the successful Team Australia JSF model for other major defence projects where there is scope for exports or as a means of assisting Australian companies, especially SMEs, to access global supply chains. The Council also believes there is a case for stronger involvement of other departments, such as the Department of Foreign Affairs and Trade and Austrade, in assisting to boost Australian industry involvement in defence exports, as well as accessing their extensive world-wide government and industry networks to assist Australian defence firms to enter global supply chains.

As identified in the Ai Group Defence Council survey, a further issue of concern to Australian defence industry, including SMEs, is ITAR. While acknowledging the need to maintain the security of sensitive military technology, it takes far too long to obtain relevant approvals, which for many smaller firms is incredibly frustrating and costly. It would be helpful if various government departments and agencies (such as DFAT, DITR and Austrade) could give priority to addressing this problem.

6.5 *Exploring New Acquisition Methods*

Ai Group Defence Council has been working closely with DMO on developing the new contracting template or Procurement Improvement Program (PIP). Reducing the complexity of contracting provisions, standardising a number of contracting clauses and improving the timeliness of contracting negotiations are but some of the recommendations which Ai Group Defence Council has made to Ms Gillian Marks, DMO's General Counsel to improve the quality of defence contracting arrangements.

One subject which has been the source of considerable debate concerns the issue of liability. Industry strongly believes that unlimited liability provisions are impractical and inconsistent with general commercial practice. Following consultations with Ms Gillian Marks, progress is being made in developing a more reasonable risk-based solution, one which should provide some flexibility to firms when negotiating major contracts with Defence.

Ai Group Defence Council believes that too little emphasis has been given by government to the type of contract to best meet the needs of particular capability acquisitions. For example, too much emphasis is placed on competition for competition's sake, when a sole source solution may be far more appropriate, and cheaper both for the taxpayer and industry.

Whilst competition is essential in most major projects, leading to better quality more competitive and better priced tenders, it is the case that the burden on companies, especially many SMEs, can be prohibitive. Government procurement policy, including within Defence must take greater cognisance of the impact of some tendering arrangements on Australian firms. This will

ease the burden on industry, whilst continuing to achieve favourable, and affordable, project outcomes.

Ai Group Defence Council looks forward to seeing the new PIP template once it is released to industry for comment, as well as working with government to improve the quality of current tendering and contracting arrangements.

6.6 Skills Shortages and SADI

Skills shortages are a national and international issue both within and beyond defence industry.

A number of Defence Council members are experiencing skills shortage problems, particularly for experienced systems, aircraft engineers and other engineers. The change in the ADF's training policies relating to skilled trades has been an important factor. One reason why there is a shortage of aircraft engineers in industry is that the pool of formerly RAAF-trained engineers is no longer available to industry to employ. And, for some categories of employment, skills shortages are geographically based.

While a number of Ai Group Defence Council members believe they can handle the current and foreseeable skills challenges, including through innovative, joint training programs with universities and TAFEs, others see this as one of the critical areas facing defence and industry generally in Australia. Ensuring the availability of an appropriate skilled workforce within Australian industry will be an ongoing issue not only for industry but also for government, especially in the latter years of the DCP, when major naval construction activity peaks.

The Ai Group Defence Council welcomed commitment by the Federal Government to the Skilling Australia Defence Initiative (SADI). Initial industry involvement with SADI identified a number of issues which led to a slow take up of program money. DMO, following discussions with the Defence Council, has introduced measures to improve industry's ability to access SADI. This included reducing the paperwork involved in applications, improvements to the criteria for seeking funding and stronger involvement of DMO personnel, including at CEO level, in addressing a number of other practical issues associated with the program. As a consequence of the changes, a number of additional contracts have been awarded to Australian defence companies. Ai Group acknowledges the good work being undertaken by DMO on SADI.

On 18 September 2006, Ai Group launched an initiative to address Australia's skilling shortfall. In doing so, it noted that 85% of all companies surveyed for the Ai Group's 2006 *World Class Skills for World Class Industries* cited 'building the skills base' as the strategy required for remaining competitive. Between now and 2016, the vocational education and training sector will be required to supply 2.47 million qualified people. To assist to meet this target, Ai Group has called for the creation of a \$1 billion Australian Government Skills Fund. It has also recommended that a twin-pronged approach be taken to provide tax initiatives to encourage further commitment to address skilling

shortages through broadening the deductibility of self education expenses and allowing industry 100% tax deductibility for relevant training expenses.

6.7 *Improving Levels of SME Involvement in Capital Equipment Acquisition and Exports*

Ai Group Defence Council's policy on SMEs, which was submitted to Defence some three years ago, is to ensure that tenders for the provision of major equipment include a plan for the level of engagement of SMEs. The policy, which was supported by the former Minister for Defence, included provision in tender evaluations for tenderers to be rewarded for maximising involvement of SMEs. The effectiveness or otherwise of the application of this policy is unclear. Stronger focus needs to be placed by Defence on implementation of the earlier stated policy

It would appear that the AWD program offers no guarantee that Australian industry, particularly Australian SMEs, will achieve the level of industry benefit which could be expected from expenditure of at least \$6 billion, or more, from this program over the next decade or so. This is because no contractual obligation has been required of the Alliance Partners to commit to any agreed level of Australian industry involvement in the AWD program. This is a major source of concern to Defence Council members. There is a need for Defence, in full consultation with Australian defence industry, to ensure that we maximise the opportunity for Australian industry, including SMEs, to participate in major capital acquisition programs.

The Ai Group Defence Council seeks stronger commitment from the Government to assist SMEs to harness additional defence work, as well as lift export performance, including through accessing global supply chains. Application of the Team Australia approach on JSF to other defence contracts provides a suitable template for Australian SMEs to benefit in this regard.

7. Recommendations

On the basis of extensive consultation with its members, Ai Group Defence Council makes the following recommendations to the Defence Industry Policy Review:

7.1 *Clarify defence industry capability requirements*

Australian defence industry believes that it would be helpful if the DCP provided clearer guidance on each major capability identified in the DCP. It would also appreciate clearer guidance from the Government on the industry capabilities which are essential to meet the requirements of the DCP, and the ADF. Capabilities which Defence believes will be necessary beyond the DCP should also be identified, thus providing Australian industry a significantly longer lead time to invest in R&D, skills and tooling.

7.2 *Improve procurement processes*

Ensure that industry policy becomes a more integral part of the capability planning and acquisition processes within Defence. Maximising Australian industry involvement in all phases of capital equipment acquisition should be a priority goal of defence industry policy. This can be achieved in part by:

- Emphasising the significance in tender evaluation for bidders, whether these be competitive tenders or sole-sourcing, to maximize Australian industry involvement in all phases of capital equipment acquisition;
- Smoothing the peaks and troughs in capital acquisition, particularly related to the overlap of expenditure on JSF, AWDs and Amphibious Ships programs; and
- Improving the quality of procurement practices and program management within Defence needs through a closer partnership relationship between Defence and industry.

7.3 *Promote further opportunities for exports and involvement in global supply chains*

The "Team Australia" experience for JSF provides a sound example of working together to improve opportunities for Australian industry to engage in global supply chains. A similar template should be engaged for all major defence acquisitions sourced from overseas. In meeting these objectives, it will be necessary to:

- (a) Identify quickly those specific capabilities which are suitable for export if we are to see an increase in the current low level of defence exports; and
- (b) Ensure that the ADF and other relevant government agencies and departments, such as Austrade and the DFAT, play a greater role in promoting Australian defence exports.

7.4 *Develop improved opportunities for SMEs*

As the JSF project has shown, SMEs are capable of winning major contract work if given the opportunity to bid. More needs to be done to encourage and assist SMEs to win ongoing, steady work through such actions as:

- (a) Extending the Team Australia model for the JSF project to other major projects; and
- (b) Having relevant government agencies and departments (such as Austrade, Defence, DFAT and DITR) fully commit to being involved with Team Australia for the benefit of Australian SMEs.

7.5 *Addressing skills shortages*

Ai Group's proposed \$1 billion 'Australian Skills Fund' would provide a major platform for addressing Australia's current skills shortage, including within defence industry. The Government's Defence Industry Policy Review should adopt Ai Group's recommendations and use the SADI framework to ensure its effective implementation

Australian Industry Group Defence Council

National Executive



Chairman

Mr Paul Johnson
Managing Director
Lockheed Martin Australia Ltd

National Executive Members

Mr Norm Gray
Managing Director, ADI Limited and
Vice President, Thales Australia

Mr Greg Tunny
Managing Director
ASC Pty Ltd

Mr John Rothwell
Executive Chairman & Chief Executive Officer
Austal Ships Pty Ltd

Mr Joseph Saporito
Chief Executive Officer
Australian Aerospace

Mr Mike Turner
National President
Australian Industry & Defence Network

Mr Jim McDowell
Chief Executive Officer
BAE SYSTEMS Australia

Mr Peter Smith
Chief Executive
Barton Vale Group

Mr David Gray
Managing Director
Boeing Australia Limited

Mr Michael Zimmer
Managing Director
Cablex Pty Ltd

Mr Alan Johnson
Managing Director
CAE Australia Pty Ltd

Mr Peter Rehn
Chairman, Australian Group
CSC Australia Pty Ltd

Mr Greg Hodges
Chief Executive Officer
Defence Maritime Services

Mr Mark Diedrichs
Managing Director
General Dynamics Land Systems - Australia

Mr Michael Clifford
Managing Director
General Dynamics Systems Australia

Mr Tony Quick
Director & General Manager
GKN Aerospace Engineering Services Pty Ltd

Mr Tony Carolan
General Manager - Business Development
Hawker de Havilland

Mr Michael Gallagher
Managing Director
L-3 Nautronix

Mr Peter Nicholls
Managing Director
Production Parts Pty Ltd

Mr Mike Caldwell
General Manager
Qantas Defence Services Pty Ltd

Mr Ron Fisher
Managing Director
Raytheon Australia

Mr Ian Ashbrook
Executive Director and Head of Defence
Rolls-Royce Australia Limited

Mr Merv Davis
Managing Director
Saab Systems

Mr Ross Johnston
National General Manager - Property & Facilities
Spotless Group Limited

Mr Robert Salteri
Chief Executive Officer
Tenix Defence Pty Limited

Mr William Hutchinson
Managing Director
Thomas Electronics of Australia Pty Ltd

Mr Guido Belgiorno-Nettis
Managing Director
Transfield Holdings Pty Ltd

Mr Bruce James
CEO Australia
Transfield Services (Australia) Pty Limited