

9 July 2014

The logo for Thales, featuring the word "THALES" in a bold, blue, sans-serif font. The letter 'A' is stylized with a small blue circle in the center.

Thales Australia Submission

Joint Standing Committee on Foreign Affairs,
Defence and Trade

Inquiry into Government support for Australian
defence industry exports

Thales Australia Submission

Summary

Successful defence export programs around the world are often the result of a country's geopolitical ambitions, and to some extent their security circumstances, as well as the associated willingness of governments to directly support domestic industry in securing export successes. These ambitions often reflect a country's strategic choices, aligning political will with defence requirements and industrial capability to promote continuous industrial production and partnerships with allies, which also offsets development costs.

Australia's relatively benign security environment removes a key export driver, but there are other means by which the Commonwealth can support defence industry exports. These include the strategic identification of, investment in, and promotion of products and services with a unique value proposition, increasing funding and commercial expertise within government, and implementing greater whole-of-government coordination across various departments.

1. The factors driving the export policies of the world's top 10 defence exporters have much in common

The world's largest and most successful exporters of defence equipment share a number of factors in common. Looking at the top 10 exporters of defence equipment, four distinct groups emerge¹. The first group (USA, Russia, and to a lesser extent China) have global defence and security aspirations supported by extensive military forces. All three countries are self-reliant in almost all areas of defence technology and production. Their drive to export is broadly aimed at realising their political ambitions through defence and foreign policy (including such mechanisms as the Foreign Military Sales (FMS) program in the case of the US); helping create favourable political and strategic alliances; promoting continuous local production; and offsetting the costs of R&D and production.

Exports to allied countries help create not only interoperability among friendly nations, but also continuous industrial production that simultaneously removes the burden of guaranteeing this continuity from domestic driven demand. The advantages are numerous – lower costs amortised across several customers, longevity of capability and associated skills, multiple revenue streams, and less problematic boom and bust scenarios (as witnessed in the current Australian 'valley of death' shipbuilding debate).

The range of products and services generated for export by the USA, Russia and China is vast by comparison with other countries, and the role of government is highly integrated as either a partner with industry or a participant in direct sales. According to the Stockholm International Peace Research Institute (SIPRI), Australia is one of America's largest customers, taking on average 10% of total trade, much of it through FMS.

The second group (Israel and Ukraine) arguably share a heightened state of direct threat to their sovereignty. For countries in this position, the drive to be self-reliant in selected technology and production is linked to their plans for national security. The drive to export is also driven by the need to offset their costs of R&D and equipment production. Neither country has a government-

¹ Stockholm International Peace Research Institute (SIPRI) Fact Sheet, March 2014. Page 2.

sponsored program such as FMS, but both governments either directly support the commercial development of products and services, or assist in the sale of defence products.

The third group (Germany, France and the UK) represent the major geo-political actors of the 20th Century that today play critical roles in supporting bilateral relationships or alliance structures. Security concerns continue to influence defence production, but more and more, the incentive to export defence materiel is commercially driven. Government still plays a direct hand in support of export through whole-of government cooperation (particularly in France), but the expectation is that companies will accept a greater burden of commercial sales in the future, separate from government incentives. Quite noticeably, defence exports for France and Germany have declined by 25% – 30% since 2004 and the UK has essentially plateaued².

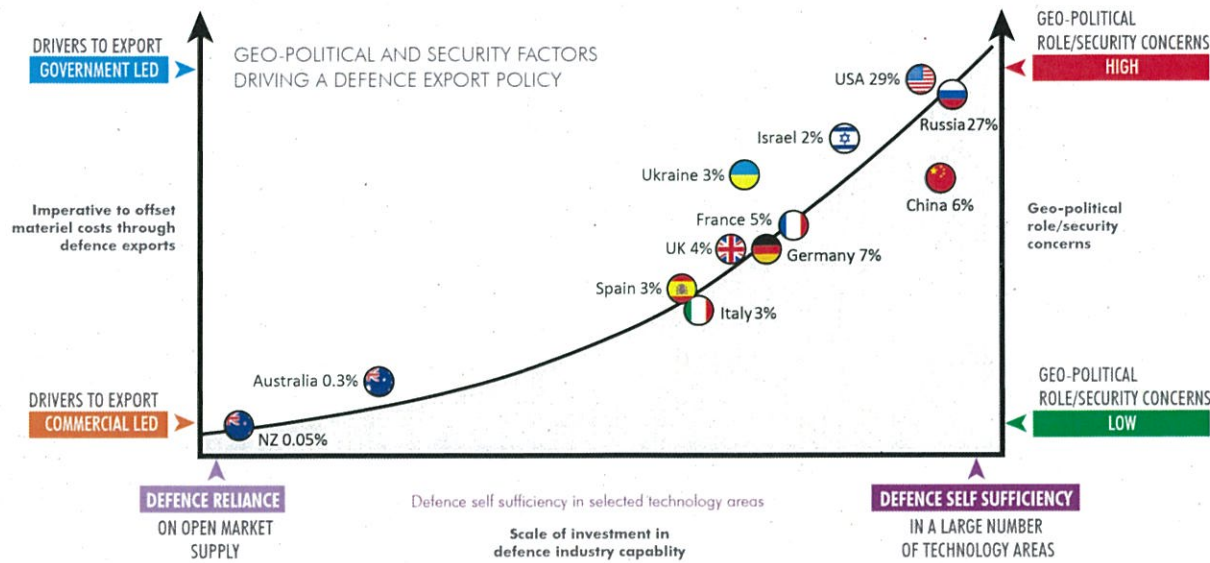
The final group in the top 10 (Spain and Italy) have moved to aggressively commercialise and support their defence industry, R&D and production costs through government-led strategies. Spain in particular applies offset programs, local content targets, direct subsidies and targeted contracts through government and non-government owned production facilities to underpin defence exports. Growth in exports from both countries over the past 10 years has outstripped the USA, UK, France and Germany³. In the case of Spain, exports have increased by about 80% of which Australia is a major recipient, taking about 12% of total trade during the period 2004 – 2013.

In the graph below Thales has attempted to illustrate the relationship between the three primary drivers to export defence equipment – the geo-political circumstances of the country; its aspirations to be self-reliant in defence technology, and the extent to which export policies are motivated by government policy or commercial interests. Individual country placement is based on our assessment of all three factors.

Australia exports a very small percentage in terms of total global arms sales – 0.3%. This is hardly surprising. Although Australia aspires to play an important role in global affairs, we maintain armed forces sufficient to play a meaningful role in a joint (ie UN) or coalition plans; we are not directly threatened by another power; we are predominantly dependent on the open market for most of our defence materiel, and the exports that do occur are mostly driven by individual company commercial strategies – sometimes unrelated to local defence requirements.

² Ibid. Page 3.

³ loc cit.



NOTE

1. Per cent figures-by country indicate the share of global arms trade between 2004 - 2013. SIPRI Fact Sheet, 2014.
2. Relative position of countries is illustrative only.

2. Australia’s investment choices in defence technology and industry support continue to be tested through open market competition

In 1992 the *Strategic Priorities for Australian Defence Industry* report started to define areas of technology in which Australia should invest to maintain a capability edge. The report gave weight to the argument that Australia’s geo-political circumstances did not warrant, nor could the country afford, a high level of self-reliance in defence technology and production. The report argued that Australia needed to select specific areas of technology and industry support that conferred a strategic advantage on the ADF and to invest in and maintain those areas. The *Defence and Industry Strategic Policy Statement* of 1998 triggered the publication of *The Defence Needs of Industry* report, which for a number of years gave quite detailed lists of technology and industry capability requirements for defence. Not until 2009 was this approach taken further through the creation of Priority Industry Capabilities (PICs) and Strategic Industry Capabilities (SICs).

The PICs policy is essentially passive, in that there were no forms of government intervention or support until the launch of the PIC Innovation Program in 2013 – which provides \$44.9m over eight years in repayable, matched grants to industry. Nor is it a launch pad for the development of export products or services. Although PICs and SICs are identified by government, the decision to invest is purely commercial, and since participation is open to foreign companies and does not confer any special advantages to local industry, growth in these areas for export has not been stimulated beyond what might have happened organically. Defence does not commit to buy or accept anything developed in or for a PIC. In some specific cases, procurement decisions taken by Defence appear counter to PIC interests. One example is the selection of the anti-submarine, towed array solution for the Air Warfare Destroyers. The Request for Tender was open to the global market and awarded in 2009 to a UK-based company, despite acoustic technologies and systems being a PIC and supported by local investment, Intellectual Property, products, facilities and exports from Australia for decades.

In terms of the model in the above graphic, none of this is surprising. None of the three factors discussed above compels the Australian Government to do anything more than point industry in the direction of technology or capability areas of interest to the ADF. The Commonwealth's procurement policies favouring open global competition align closely with current geo-political drivers and incentives – ie anchoring decision making into the lower left hand corner of the graph above. Australia's position is very far from Spain, for example, where its targeted, interventionist policies have seen dramatic growth in defence industry and global export orders since their industrial and economic doldrums of the mid-1990s.

The inappropriateness of the PICs and SICs policy as a platform for the development of products and services for export is further highlighted by the fact that some of Australia's successful exports are not associated with any PIC – for example, the Bushmaster Protected Mobility Vehicle. The closest relevant SIC is for the repair, maintenance and upgrade of armoured vehicles, not their creation through design, development or production activities.

3. Creating a successful defence export industry must be based on products and services that present the global market with a unique value proposition

In simple terms, a national defence export strategy must support the development of products and services that offer foreign customers a unique value proposition. Without unique products and services to export, Australian industry has very limited ways of differentiating itself from other global players in the arms market. Products and services with a unique value proposition for export are most likely to be generated from research and development activities, new product development, or by innovating the ways in which capability is traditionally managed and supported.

Australia's relative position at the bottom left hand corner of the above graph aligns closely with current acquisition preferences, which are dominated by the import of defence products or systems (preference for open market sources). As a result, the emphasis by Defence is on gearing local industry to support these acquisitions once in country. That means that Australia does comparatively little R&D and product development from which export possibilities with a unique value proposition may emerge. As weapons systems or platforms become increasingly sophisticated, the opportunities for local industry to forge a unique export value proposition from support activities is also difficult, because so much of the intellectual property, software, hardware, manufacturing processes and replacement parts are locked into, or controlled by, foreign original equipment manufacturers (OEMs).

In Thales's experience, our most successful exports have been products designed and developed in Australia and launched through large contracts to fulfil local requirements – Bushmaster vehicles; maritime mine-warfare countermeasures; military rifles; small arms ammunition; and air traffic management software and systems. One way to describe exports of this type is the 'push' model – a unique product is developed and launched through a local requirement that then has sufficient momentum to 'push' its way into the global market as a unique value proposition.

From the late 1990s the Defence Materiel Organisation (DMO) has promoted the concept of Australian companies finding niche value activities in the supply chains of larger defence companies. As with the PICs and SICs policy, the global supply chain initiative is largely passive. The DMO facilitates the program through policies such as Australian Industry Capability (AIC) requirements in RFTs (and formally Australian Industry Involvement – All) and through funded industry engagement activities with major defence equipment suppliers – including Thales.

Defence 'opens doors' so that local companies can compete for work as a supplier to a larger defence manufacturer, and if successful, win work packages developed by the OEMs. The majority of this work comes in the form of specifications, design documents and IP supplied by the OEM and then exported from Australia as finished goods into their global supply chain. Over the 15 years since this initiative began, a number of Australian companies have found steady commercial work that has helped them leverage their unique value propositions in technology, production, quality and process areas. One way to describe exports of this type is a 'pull' model – local companies compete for work packages from larger companies with global supply chains that 'pull' finished goods into their logistics systems. Thales has been through this exact experience, as outlined in the following case study.

SUPPLY CHAIN CASE STUDY: Thales export of LM2500 engine modules to GE of Cincinnati, Ohio – 1985 to 2007.

Before the creation of the DMO's Global Supply Chain initiative, Thales's Heavy Engineering Facility in Bendigo (then ADI) successfully exported more than \$220m (in 2007 prices) of fabricated parts and fully assembled environmental shelters for GE's LM2500 gas turbine ship propulsion units – essentially an aircraft gas turbine engine used to power ships and housed inside a specially built chamber to limit the impacts of noise, vibration, heat, exhaust etc. The contract started as an offset agreement following Australia's acquisition of the Oliver Hazard Perry class FFGs in the 1980s.

As part of GE's global supply chain, Thales began manufacturing components of the shelters according to the OEM's specifications. Continuous improvement in work quality, on time delivery and cost management gradually saw Thales take more and more work from other companies in GE's global supply chain until Bendigo became the sole, worldwide source of fully completed marine shelters for GE in 1997 – the shelter was an 18 tonne, complex manufactured item involving more than 3000 hours each to complete. At one point, this work absorbed 30% of the Bendigo facility's workforce.

Thales maintained its premier supply role in GE's global supply chain for more than 10 years. GE was a demanding customer - year on year it sought cost efficiencies in the production and supply of the LM2500 finished assembly. By 2007 there was nothing left for Thales to extract by way of cost reductions or efficiencies. Thales had reached its price tipping point where further price reductions would result in losses, and underlying cost structures made continued production in Australia non-economic. GE then closed the contract and moved production to eastern Europe, where countries emerging from the Cold War era were much less expensive and eager to fill their empty heavy engineering plants with new work.

Although Thales lost an important export contract, it gained in other ways. Production standards for the LM2500 shelters had to meet strict aerospace industry standards, and as part of Bendigo's ongoing quality program, it achieved certification to the SAE-AS 9100 aerospace quality standard – something quite rare at the time for a heavy engineering facility. The systems, processes, quality standards and trained workforce added significantly to the transformation of Bendigo from heavy engineering to a modern production centre for Bushmaster protected vehicles which have since resulted in the export of vehicles to the UK, Netherlands, Japan and Jamaica. The subsequent impacts of Thales's global supply chain experiences, through

Bushmaster activities, continue into the second wave of production as Bendigo ramps up for potential Hawkei manufacture starting in 2016.

The challenge for Australian companies engaged in global supply chain activities is to create a lasting, unique, exportable product or service from their experience in doing this kind of work. If a company cannot maintain its competitive advantage through price, quality or some other unique value proposition, they are not guaranteed a continued place in the supply chain of an OEM. If the work ceases and the company has not generated a standalone capability to export either a product or service, then the export opportunity usually closes too. The experience, however, may provide lasting positive effects on manufacturing processes, industry standards, product or service quality, workforce safety, etc, but not necessarily an enduring capability to export.

4. Government support for increased defence exports from Australia

By comparison with the most successful defence exporting nations in the world, Australia's geopolitical circumstances, defence procurement policies and broader national incentives all emphasise the passive nature of the current approach. That leaves commercial organisations and their strategies in the best position to improve export. If Government wishes to increase defence exports, then it needs to assist companies by playing a greater role in facilitating and supporting commercial strategies. Thales has outlined five recommendations below.

4.1 Generating a unique value proposition

Government possesses considerable political and scientific resources through not only democratically-elected politicians and a sophisticated public service, but also such organisations as the DMO and the Defence Science and Technology Organisation (DSTO). The combined actions of all of these resources is necessary to develop and promote technologies and products capable of producing a unique export value proposition.

In the past Australia has enjoyed a distinguished record of innovation and R&D, creating world leading systems and technologies such as the Nulka Anti-Ship Missile Self Defence System; the Jindalee Operational Radar Network (JORN) comprising advanced Over-The-Horizon Radar (OTHR) systems, and the Barra sonobuoy which was, arguably, the most advanced sonobuoy system in the world for more than 30 years. Innovative ideas developed through funded research and development is the most effective way of developing unique technologies and products for export. The innovations listed above all deliver a strategic capability advantage for Australia, and in the case of the Nulka decoy and the Barra sonobuoy, valuable export dollars. The oxygen necessary to breathe life back into a reinvigorated defence industry base already exists. A focussed, coordinated approach by Government and industry to keep the momentum of defence exports at the forefront of defence policy will achieve the desired results.

However, success is dependent on three key factors – political will, local defence requirements, and local industrial capability. At the highest level, this political will reflects a country's strategic choices regarding how it projects its power and image into the world, and the defined objectives it sets out to achieve. Our political leadership has the ability to decide how to focus efforts and investment into specific areas, outlining where and how a country should target limited resources in order to achieve the most advantageous local and international outcomes. Examples here include the USA, Israel and

Spain, which have clear strategic objectives backed by the focused attention of the political leadership to support local requirements and continuous industrial production.

Australia has the opportunity to follow these examples, and set clear strategic priorities that could receive increased focus, investment and support. For instance, Australia is clearly not suited to investing in and developing its own globally competitive air platforms, but it could potentially further develop leading sonar capabilities ideally suited to help protect Royal Australian Navy vessels and the country's vast coastline. These could also be viable exports, in particular to friendly nations willing to purchase innovative capabilities and help promote collective interoperability.

Such a strategic focus would also mitigate against 'halfway house' scenarios, where less well-defined objectives receive limited investment and support, leading to the development of a not fully realised industrial capability that may or may not meet local requirements, but certainly does not fully capitalise on export opportunities.

Measures to allow DSTO and industry to collaborate effectively need to focus on significantly reducing the timescales involved in bringing research to market; financially supporting joint product development, and allowing industry to lead on international marketing and sales. DSTO should be restructured to play a greater role in commercialising its research and development, and should also be incentivised to become an incubator of technology and products for export. A more commercially experienced unit within DSTO is needed to work with industry and to drive commercialisation efforts in international markets.

4.2 Increased funding for export financing

The capacity for industry to draw on export financing and insurance to support sales into less developed markets is a critical differentiator in the global market. The Export Finance and Insurance Corporation (Efic) could play a greater role in supporting defence exporters. An expanded Efic mandate to structure export sales into emerging and regional countries would improve the opportunity for Australian companies to sell into markets that might not otherwise be able to afford the direct purchase of products and services that Australia can provide.

4.3 Coordinated whole-of-government approach to defence exports

Government also possesses considerable resources and a global network of influential people in the Departments of Defence, Trade and Investment, Foreign Affairs and Trade, and Austrade, to facilitate defence exports. In the past Thales has received excellent support from these organisations, but the effort to approach, brief and coordinate activities into a specific market relies very much on individuals and their capacity to support. A government-coordinated program involving these organisations, tasked with defence sales objectives, would spearhead export drives into key markets and access to decision makers generally not available to commercial organisations.

4.4 User support to market Australian defence equipment

The value of users from the Australian Defence Force (ADF) who can demonstrate and brief interested buyers on the range of equipment and technologies employed by our individual services can never be underestimated. The credibility that users bring to a product cannot be duplicated by commercial sales organisations. To the extent that this occurs at present, there needs to be a

significant increase to allow ADF equipment and personnel to attend and support trade shows, as well as demonstrations both in Australia and overseas to potential buyers. At present there are still significant approvals and other impediments to releasing equipment and personnel to attend commercial sales activities, which could be relaxed or fast tracked if supported by government mandate. As is the case in countries such as the USA and France, Defence Attaches posted to foreign embassies and High Commissions should undertake an extensive visit and briefing program to Australian defence manufacturers to gain firsthand knowledge and contacts that could support efforts by them to promote defence exports in foreign markets.

4.5 An Australian Foreign Military Sales program

The Australian Military Sales Organisation (AMSO) is tasked with facilitating direct government to government sales of equipment produced by Australian companies. AMSO needs to be a much more aggressive, commercially focussed organisation with annual sales targets and incentives. A national catalogue of high quality, leading products and services that AMSO can promote and sell should be a priority for development. AMSO should also be able to negotiate deals that provide foreign buyers with the same price, quality, delivery and commercial terms and conditions enjoyed by Australian government customers. Direct government to government sales should earn a commission or profit sharing source of revenue back to AMSO, to fund their ongoing activities. To be successful, AMSO should be staffed by marketing, sales and business development professionals with a proven record of success in international sales and export deals.

5. Defence Export Control Office

The Defence Export Control office (DECO) and the licensing process is pivotal to timely advice relating to export opportunities that arise. DECO's advice becomes critical when the possible export might be to a destination considered sensitive for various reasons. This does not mean exports to a sanctioned country, but perhaps to countries or areas such as the Middle East, that from time to time experience instability. Currently the consideration of sensitive applications can take up to 35 working days or longer, which may result in losing the momentum and the opportunity for the export. A reduction in this waiting time would be of considerable benefit to companies developing export opportunities.

In Thales's experience DECO is performing well in straight forward applications to non-sensitive destinations. Proposals to issue longer validity periods for export permissions and an application process that recognises some destinations have no foreign policy issues or technology constraints can only improve industry's ability to export. DECO's process improvements are also considering General Export Licenses (GEL) that will allow ongoing exports of a certain item or system to a defined country for a longer period, such as for the length of a contract. This not only reduces the administrative effort for both DECO and the exporter, but also provides some certainty for an export contract. The ongoing role and continuous improvement process in DECO is recognised and welcomed. Further innovation and efficiencies should be encouraged by Government.

6. Conclusion

Today, Australia stands at a critical decision point regarding defence industry exports. The government has genuine options regarding its policy framework, and the ability to clearly shape the future in this area.

One option is to persist with the current passive approach, which will probably continue to deliver sporadic successes against a backdrop of passing opportunities. A more ambitious option, however, is to implement a vigorous, robust and coordinated approach to industry exports that has the potential to deliver more consistent successes, and longer term revenues, than currently experienced. This option requires investment in innovative ideas through targeted R&D either by leading defence companies, large and small, or in cooperation with organisations such as the DSTO.

The Commonwealth has extensive resources that can be deployed to make high level strategic decisions regarding what capabilities to invest in to support local needs, while maximising continuous local industrial production and export potential. The Commonwealth can also support these capabilities through a whole of government approach, while industry has the ability to deliver innovative world-class capabilities in targeted areas. Taken together, this is a recipe for success.

Thales Australia urges greater cooperation across government, more detailed exploration of the areas for improvement outlined above, and increased consultation with industry in order to enable these important outcomes, which will deliver numerous industrial, technological and economic benefits to Australia as a whole.