

The Australian Industry and Defence network and its role in improving Australia's regional security



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Brent Clark

Chief Executive Officer, Australian Industry and Defence Network

The operational readiness and effectiveness of the Australian Defence Force (ADF) is crucially dependent on the functionality and the technological capability of the equipment onboard our ships, aircraft and those held by the land forces. Much of the equipment is sourced from overseas, thus not providing the impetus for our domestic industry to develop and compete to provide industrial support to the ADF. Given Australia's isolated geographical position and the unreliability of international supply chains, a sovereign industrial capability is vital to our defence and national security. The Australian government should prioritise the building of our sovereign industrial capability.

Key words: Australia; defence industry; defence resilience; sovereign control; sovereign industrial capability; ship building; submarine.

In this paper, I will describe the Australian Industry and Defence Network and the role Australia's defence industry plays in the nation's defence readiness and resilience.

To provide perspective, I will start by summarising the situation in several countries which have their own strong defence industries: United States, United Kingdom, European Union, Sweden, South Korea, Israel, and Turkey. Each of these countries has in place its own defence strategic policy which, in each case for national strategic reasons, is exempt from free trade agreements. Similarly, the Indian government 18 months ago set up a made-in-India programme with a schedule under which, over the next three to four years, the Indian government will slowly wind back any outside industrial involvement and they will increase the capability of their own indigenous companies.

Nations adopt such policies to enhance their self-reliance, sovereignty, supply-chain resilience, research and development, and the mobilisation of the industrial base. Why is this important? In part, because of the economic benefits *i.e.* the return on investment for the Australian taxpayer. Yet, we see many commentators downplaying the role of Australian industry in defence projects.

My primary role is to look after Australian industry. Our definition of Australian industry is Australian-owned companies or Australian controlled companies. That is the same definition that the Americans use. The Australian Industry and Defence Network (AIDN) is working with government on this as currently the definition of an Australian company is anybody with an Australian Business Number (ABN). The problem here is that anyone can go on to the Australian Taxation Office website and create an ABN for themselves in about five minutes. The AIDN argument is that the current definition of an Australian company is not a satisfactory definition.

The AIDN is urging government to adopt the American model which requires sovereign control.

Foreign Companies Operating in Australia

Take the example of BAE Systems, a British multinational arms, security and aerospace company based in London. Its Australian subsidiary remains a 100 per cent United Kingdom owned. In contrast, in the United States where it is the third largest defence contractor, the Department of State imposes conditions on BA systems. All control of BA Systems (US) Inc. is vested in the BA Systems United States board. The only aspect exposed to the United Kingdom is the profit and loss. This enables the United States government to contract directly with BA Systems (US) Inc. without any technology transfer leaking across boundaries. So, when I talk about Australian control, that is what I mean.

SAAB systems in South Australia is an example of what we seek. All the intellectual property, technical know-how, and ability to understand what SAAB is doing related to the combat management system on the Hunter-class frigates, reside here in Australia. The board based in South Australia can make business decisions about that combat management system without reference to the parent company in Sweden. For acquisition of hypersonic missiles for the ADF, under the terms of the agreement with SAAB, the Australian government could contract SAAB to make an amendment to the combat management system for the inclusion of hypersonic missiles. That information does not have to go back to Sweden, hence is deemed to be covered under vested sovereign control.

Supply Chains

Meanwhile, COVID has impacted all our supply chains globally, and to some extent even domestically. I will give you a working example. Unfortunately, I reversed my car

a couple of weeks ago into my neighbour's car. There is very little damage to my car, however a little bracket is needed for the repair. This little bracket has to come from Germany, which will take four months because of supply-chain issues. It is a bracket that could be manufactured in Australia.

We need to understand the fragility of the supply chains. The conflict in Ukraine is another factor that has directly impacted supply chains globally and we have no idea when and how it may end. Further, the cost of living today has risen by 7 per cent and next week when the Reserve Bank publishes its figures it could be almost 10 per cent, thereby inflicting substantial cost increases on individuals, families, businesses, industries and particularly on supply chains sustaining our defence industry.

China, especially from a navy perspective, is enlarging its strategic presence in the Australian regional strategic space. Australia, the United States and other like-minded allies need to be able to counter this emerging regional threat. That threat, however, is unlikely to be resolved in the near future considering that China is Australia's largest trading partner in both import and export terms, and trade with China could freecall should China deny entry to our exports and/or block their exports to Australia.

A good example is the face masks that we have been wearing to protect us during the COVID pandemic. All those masks were being produced by China. We had a major shortage in the early stages of the pandemic because the Chinese government stopped supply to us as they needed them at home. To deal with the situation, the government, using incentives, encouraged industry to make masks and Australian industry did. The cost was five times that of the imported masks. The crisis, though, is now over and we are back purchasing face masks from China.

Legislative Considerations

It is instructive to consider the legislation governing defence industry in other countries, such as:

- United States – *Defence Production Act of 1950*;
- Canada – *Defence Production Act of 1985*;
- European Union – *EU Strategic Compass on Security and Defence, 2022*;
- United Kingdom – *National Security and Investment Act, 2021*;
- South Korea – *Défense Industry Technology Protection Act, 2016*;
- Sweden – *Arms Export legislation (Democracy criterion), 2017*; and
- Germany – *Defence Policy Guidelines, 2011*.

The *United States Production Act of 1950*, known as the Jones Act, requires the United States Department of Defence to purchase products only from American companies. Under special circumstances, however, American companies can import equipment from overseas companies. What they tend to do is to buy the intellectual property or buy the rights and then

manufacture in the United States.

If you consider the above list, each of those pieces of legislation is set in place so that the country in question can safeguard its local domestic industry base, particularly with respect to defence production. A production facility, a manufacturing base and an industrial capability are the most important things that a country needs if it is to have a sovereign defence industrial capability.

Funding Australian Defence Industry

Australia currently ranks 11th globally in terms of the size of its defence budget as we are going through a major upgrade of defence equipment (Figure 1). The previous government projected \$270 billion for the defence upgrades. In reality, the defence enterprise will cost Australia \$554 billion per year over the next 10 years for all expenditure on defence. Recent ANZ Bank research found that no more than 48 per cent of the budget is spent in Australia and of that 48 per cent, at least 24 per cent is spent with foreign-owned overseas prime contractors. This implies that about a quarter of \$550 billion, money contributed by Australian taxpayers, is spent with Australian industries and three quarters is going into the pockets of overseas governments and industries.

Figure 1:

Rank 11th in the world in Military expenditure
Australia ranks 11th in the world in military expenditure with a defence budget comprising 2.1% of our GDP or \$31.997 billion (USD).

Third largest arms importer
We are the world's third largest arms importer (after India and Saudi Arabia) spending \$1.658 billion on arms imports in 2020 or 5.2% of our total military spend.

Largest commitment in Defence spending since WWII
Meanwhile, the Australian government has committed to spending more on Defence hardware over the next ten years than it has since WWII. This commitment includes \$270 billion over 10 years on new and enhanced capability, as well as sustainment programs

Country	Military imports (USD) (2020)	Total Military spend (USD) (2020)	Percentage imports
Canada	\$207,000,000	\$23 billion	.9%
US	\$687,000,000	\$754 billion	.9%
UK	\$764,000,000	\$68 billion	1.12%
Australia	\$1,658,000,000	\$32 billion	5.2%
Saudi Arabia	\$2,446,000,000	\$46 billion	5.3%

Source: Australian Industry and Defence Network research study /presentation: <https://aidn.org.au/>

The AIDN argument is that this is simply not good enough. Innumerable economic studies reveal that every dollar spent, be it on defence or non-defence items, in your local area returns a dollar. Some studies find that it is two dollars returned on every dollar spent. So, if Defence spends \$10 billion in Australia and we take the middle ground, that is a return of \$15 billion to our economy. A similar metric applies in other countries. So, AIDN believes that the Australian government needs to be mobilising the Australian industrial base and the Australian economy as opposed to the economies and industrial bases of overseas entities.

AIDN is particularly concerned about Australian industry, especially the small-to-medium enterprises (SME). The SMEs employ the majority of people in this country – about 60,000 full-time employees. Of note, defence expenditure in Australia on the SME community is relatively constant while at the same time the defence sector is expanding. It is evident that there is an increase of overseas countries – European Union, United States and United Kingdom – taking funds from Australian

industry. More Australian companies are trying to drink from the same bucket, yet find they have to compete with a variety of overseas companies.

This matters if we are to achieve a sovereign industrial capability in this country. Such a capability would involve a comprehensive range of activities across research and development, manufacture, construction, maintenance and repair of our defence equipment, armaments, ships, aircraft and related materials. If we do not have that capability, then we will find ourselves beholden to foreign powers. Now, I do not think that the United States and the United Kingdom would intentionally do the wrong thing by Australia. They are terrific allies. The simple reality, however, is their military has its own industrial requirements.

Building Submarines in Australia

Turning now to the AUKUS Agreement between Australia, the United Kingdom and the United States, as an ex-submarine officer I believe that the nuclear-powered submarine is a great capability and I am pleased that we have agreed to construct one. There are whole elements of that submarine that could and should be constructed here. AIDN is not advocating for the construction of the nuclear-power plant in Australia. Australia potentially could do that but does not need to do it as there is no benefit to Australia in making the power plant.

Can Australia build a nuclear submarine other than the power plant? Yes. A nuclear submarine is just like a normal submarine except it has a nuclear-power plant. The rest of the submarine – the pressure hull, the hydraulic system, the electrical system and other systems on that submarine, except the reactor – can be built in Australia by Australian companies. ASC today is doing 80 per cent of that work with Australian companies on Collins-class submarines. The electrical system, the hydraulic system, the fresh-water system, the chilled-water system, whatever system you want to talk about, is effectively the same system on a conventional submarine as it is on a nuclear-powered submarine.

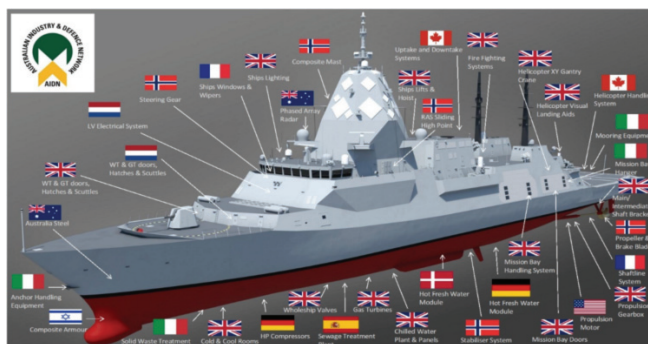
The AIDN argument is that we need to be collaborating today with United Kingdom and United States companies to facilitate the transfer of technical knowledge and intellectual property to Australian companies. We believe that the government needs to look at how to do that.

Systems Sourcing in Ship Building

Figure 2 reveals the current reality with the Hunter-class frigate that is being built in South Australia. The Hunter-class was based on a Type 26 design from Britain. At the AIDN, we researched the systems that are going into this warship and marked the systems with flags indicating the countries from where the systems are coming. Every one of these flags indicates a system sourced overseas. The flags indicate that most of the systems have been sourced overseas.

Photo on next column is an Australian ship. During the tender phase, all the tenderers said that they would strive to include Australian industry as much as they could. Our view is that Figure 2 is a pretty unattractive picture if you

Figure 2:



Source: Australian Industry and Defence Network research study / presentation: <https://aidn.org.au/>

are an Australian company. You would be justified in saying that it is just not good enough.

AIDN is not anti-overseas prime contractors. We work very closely with all prime contractors to facilitate the inclusion of Australian companies in their supply chains and to ensure that Australian companies are able to compete fairly and equitably for work. The vast majority of our interactions with those overseas primes have been good.

Figure 2 represents the situation with the first batch of three Hunter-class frigates. BA Systems, the prime contractor on the Hunter-class, has committed to having many more Australian sub-contractors for the next batch of these ships. At the AIDN, though, we are not convinced since it would involve changing the supply chain with inevitable slippages in schedule and increased costs to be borne by the Australian taxpayer. We do not believe that you can change the supply chain successfully once you are four frigates into the build. Our argument is that the necessary work required to get Australian companies into the supply chain – to get them qualified, prototyping, and unskilled; and to get their plant, machinery, and equipment invigorated so they can compete for this work – needs to be done in time for them to be included in the first batch of ships.

Figure 2 reveals participation of only two Australian companies in the ship building programme. The phased-array radar is being manufactured by an Australian company, one of the leading phased-array radar manufacturers globally. The hull also is being fabricated from Australian steel. As you can see, for an Australian ship, very little is being made in Australia.

Let me hasten to add that BAE Systems has done nothing wrong in building the Type 26 frigates for the RAN¹ using foreign systems and parts. They have done what Australia asked them to do. I have been working with BAE Systems in the UK over the last decade and the progress in terms of schedule, budgets and systems have been progressing to expectations. No, if 'fault' is to be found, it is with the Australian government and its Department of Defence – specifically, in how they formulated and specified the programme.

¹The Type 26 frigate or City-class frigate is a class of frigate being built for the United Kingdom's Royal Navy, with variants also being built for the Australian and Canadian navies.

Creating Sovereign Industrial Capability

If you want to have a proper sovereign industrial capability you have to have some sort of legislative framework to enforce it. You also need to ensure that heaps of work is given to Australian companies – it cannot be token. Further, you must invest in research and development.

Please note that purchasing Australian content is not the same as developing Australian capability. The Attack-class submarine programme was going to be for 12 x 4,500 tonne submarines. The amount of steel that the submarines were going to require would have taken BHP Billiton or Bluescope Steel in Wollongong only 1.5 days to produce. That would have been purchasing Australian content and may have fulfilled an Australian industry content requirement, but it would have done nothing to enhance our sovereign industrial capability nor to increase our national skill base. In contrast, the phased-array radar being used in the Hunter-class frigates took the the Australian company that developed it 20 years of research and development and millions of dollars of investment to invent and manufacture. It is now leading technology globally. That represents an increase in Australian sovereign industrial capability.

Please also note that AIDN does not consider that it is the job of the Department of Defence to create sovereign industrial capability. Defence does not exist to provide an industrial welfare programme or to create a sovereign industrial capability. Indeed, Defence does not have that expertise. It is the role of government to put the necessary policies in place.

Global Supply Chains and Sovereign Industry Capability

In today's strategic environment, we cannot guarantee overseas supply chains. I cannot get a part for my car. I do not know what would happen in a conflict as we have a nation to our north that has the ability to cut off our supply chain to the rest of the world via sea and by air if they so chose. This makes anything and everything we can do in Australia important. It is, however, the smarts that count. Should we get into a conflict, we would need the ability in this country to modify the equipment that we have and to increase its capability.

In warfare, things change very quickly. Missiles will be fired, people will develop tactics to counter those missiles. Equipment will be able to detect missiles being fired *etc.* Countries will come up with ways to try to make those missiles stealthier. We may find ourselves in trouble if we do not have the ability in this country to fix the counter-counter capability or modify our equipment as may be required. That may not be a modification that the United States needs. Our submarines, heretofore,

1 The Type 26 frigate or City-class frigate is a class of frigate being built for the United Kingdom's Royal Navy, with variants also being built for the Australian and Canadian navies.

have differed from the American ones – they have been different submarines, we operate in a different environment, we have used them to do different things, and we have carried different equipment sets on board.

In as shipyard, welders are really important, but so are engineers, scientists, and people who can develop cutting-edge technology. We need these skilled people to support our service-people so we can give them the best chance of success.

In the late 1970s, we were going to replace the aircraft carrier HMAS *Melbourne* with HMS *Ark Royal*; then the Falkland War happened in 1982 and the British government decided to retain *Ark Royal*. We lost our aircraft carrier capability because of the British government's decision, not because of an Australian government decision. HMAS *Melbourne* was decommissioned; we did not have a replacement; the capability gap became too long and so we lost our fleet air arm. I am not blaming the British government – they were involved unexpectedly in a war with Argentina – so I understand, but do we really want to hand our sovereign control to foreign governments?

Our the Oberon-class submarines also were affected during the Falkland War when the British government put a moratorium on issuing all stores and supplies for Oberon-class submarines internationally. This meant that Australian, Canadian and Brazilian Oberon-class submarines were unable to proceed to sea for a period of time because we could not access vital stores support.

Such examples are very important. Our essential supplies were not being withheld by a private contractor but a foreign government, even the most friendly thereof.

Conclusion

If we wish to modify a piece of equipment, develop a piece of equipment, or put a new piece of equipment on board one of our platforms, we should have the ability in this country to do that. We should not have to give a series of engineering change requests to a foreign government to do that for us. But something that Australia might need might not be a high enough priority for what our overseas equipment supplier might need and, consequently, we might have to wait for an extended period before the modification were made. To be in that position, I think, is unacceptable strategically and it could directly put the men and women of our armed services into harm's way. So, that is why you need a sovereign industrial capability. It is vital to assuring our defence and national security.

The Author

Since May 2020, Brent Clark has been chief executive officer of the Australian Industry and Defence Network (AIDN), Australia's largest national defence advocacy group representing small business. In his early career, he served for 11 years in the Royal Australian Navy (RAN) as a submariner, on HMA Submarine *Onslow*, NUSHIP *Farncomb*, HMAS *Ovens* and HMAS *Otway*. For the next 20 years, he served in defence industry rising to become interim chief executive officer of Naval Group Australia. Prior to joining Naval Group, he had worked for the largest defence contractor in Australia, BAE Systems. Earlier, he was the vice president, Thales Naval Business Group for Thales Australia. He has also worked for SAAB Systems and Sonartech Atlas. [Photo of Mr Clark: Lieutenant Colonel John Howells OAM RFD (Ret'd)]