



**WHAT DOES EFFECTIVE INDUSTRY COLLABORATION LOOK LIKE
FROM A CONTRACTING PERSPECTIVE? DISCUSS WHETHER THIS
CAN BE APPLIED IN THE DEFENCE SECTOR**

South Australia Defence Industry Leadership Program Concept paper

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EXECUTIVE SUMMARY

Under Pressure, the collaboration between Queen and David Bowie danced into the music charts in 1981. The song was voted the second best musical collaboration of all time by Rolling Stone Magazine, and both its title and its inception are a perfect metaphor for the collaboration that is necessary for SMEs to effectively contribute and thrive within the defence industry.

The pressure of working alongside others is not always easy. Individual businesses bring their own specialist knowledge, experience and ways of operating.

Collaboration is a creative process that is essential for SMEs to survive in this complex and globalised world. It allows businesses to come together to achieve what they could not possibly achieve on their own.

Collaboration in defence is not a new concept. Over the decades there have been many examples of successful collaboration within defence projects; however if defence do not mandate collaborative agreements between Industry SMEs, the supply chain of Industry capabilities won't grow to meet the Defence Industrial Capability Plan. Our current major defence projects will not be achieved, and everyone stands to lose. We now need to encourage, motivate, and even mandate collaboration at all levels of industry and government within defence.

There is outstanding agreement and belief, both in industry and government, that collaboration is essential if we are to build a defence industry that is able to effectively provide an advanced and sovereign capability. We must take that belief and work to ensure effective collaboration through mandated industry collaboration agreements within defence contracts.

Australian defence contracts define how a project should be run between primes and sub-contractors. They define what is required to complete a contract, but they do not provide guidance on how industry should work together to provide the capability. Our recommendation is that an ASDEFCON suite of tendering and contracting templates, define and mandated how industry should work together towards building a strong, collaborative partnership.

The CoA wants to:

- Develop a sovereign defence industry and capability across each arm of the defence forces.
- Optimise Australian content in all the future Naval, Air and Land force projects.
- Develop and promote a defence export capability.

Our proposition is that all major defence projects must have a mandated target for Collaborative alliances that creates a truly sovereign defence industrial base and capability. This target should focus on international primes working with SMEs, and fulfill the Government's Defence Export Strategy or the broader Defence Industry Capability Plan.



WHAT IS COLLABORATION

In terms of industry, collaboration is businesses making the effort to work together towards a common, defined purpose, whether that's a particular task or project. Effective collaboration is when this purpose is achieved with excellence.

Collaboration is a creative process that is essential for SME to survive in this complex and globalised world. It allows businesses to come together to achieve what they could not possibly achieve on their own.

Collaboration allows businesses to:

- Combine strengths
- Share knowledge and ideas
- Find solutions to problems
- Innovate, inspire and improve
- Break new ground
- Individual businesses bring their own specialist knowledge, experience and ways of operating.

Effective Industry Collaboration

For industry collaboration to be successful, it requires:

- A clear definition of roles and responsibilities
- Consensus about methods and goals
- Open communication
- Recognition and acknowledgment of all contributions
- Team goals placed above individual goals
- A willingness to admit to mistakes, learn and move on.

The collaborative process is not always seamless, but if it is done well, the end result can be multiplied by the sharing of resources and expertise, no matter what sector or what industry.

Effective Industry collaboration plays a very important role in pushing the frontiers of knowledge and developing new technologies thereby making them powerful engines for innovation and economic growth.

There are many historical examples of how effective collaboration has developed new products and ideas. The iPhone for example resulted from a highly collaborative process that produced a game-changing gadget. It involved dozens of collaborations between Apple the tech giant and many partners around the world.

In 2009, Coca-Cola and Heinz collaborated to develop more sustainable containers. The Coca-Cola Company created the Plant-Bottle, a plastic bottle partially manufactured (30%) with plant-derived materials (like sugar cane and molasses), the remaining 70% of each bottle is made from fossil fuels.

The Coca-Cola Company is now striving for a bottle made of 100% plant-derived materials and residues however; because they could not mass manufacture, they have collaborated with Heinz to use their bottling factory.

Both The Coca-Cola Company and Heinz have made major investments into the project as a step in reducing emissions, waste and energy consumption. Both Heinz and The Coca-Cola Company are using this new bottle to help reduce their carbon-footprints. The bottle is 100% recyclable and can be re-used to manufacture more bottles or even make furniture – The Coca-Cola Company has also collaborated with furniture maker Emeco to manufacture a chair, which is made of 111 recycled bottles.



In 2011, Microsoft and Toyota launched a strategic alliance to jointly fabricate a software platform dedicated to managing the information systems for electric vehicles; the collaboration resulting in intelligent energy consumption within the vehicle. This system includes energy management, GPS systems and multimedia technologies in a cloud platform. As part of the collaboration, the two companies invested in a subsidiary company that develops and provides the digital information services for Toyota customers.

The Centre connects people, cars and homes with the aim of integrating energy consumption management and working towards a more sustainable society. Electric and hybrid Toyota vehicles connect to an intelligent network and handle their own charging with maximum efficiency.

Collaboration and the Defence sector

In Defence, collaboration between SME can lead to successes on stages normally ruled by Primes.

The Defence strategic environment is complex; currently Defence policy is calling for transformational change.

Since 2016, some of the major defence policies released have changed the landscape for the Australian defence industry, and in particular for Australian SMEs and micro SMEs.

In the last three years we have seen the release of the Defence White Paper (2016), the Defence Industry Policy Statement (2017), the Defence Export Policy (2018) and the Defence Industrial Capability Plan (2018). Each of these policies is significant in their own right, but together they have created a framework that is guiding the decisions, acquisitions and sustainment of our Australian defence forces.

This comprehensive range of policies and strategies, over a period of years have provided businesses with a level of confidence to enable investment in future capabilities.

In the big picture, together all policies set out an agenda to encourage a transformation in the defence and industry relationship, from a traditional situation to one that is based on collaboration to achieve mutually beneficial outcomes.

The appointment of our nation's first Defence Industry Minister has seen policy influenced for the benefit of Australian industry. The major defence policies provide an opportunity for directors, owners, CEOs and managers of SMEs to take a greater interest in the defence strategic framework, and align their business's future strategies with those supported and endorsed by the Australian government. Additionally, the government is providing a range of financial and non-financial mechanisms to support SMEs journey into the defence industry.

Collaboration in defence is not a new concept. Over the decades there have been many examples of successful collaboration within defence projects; however if defence do not mandate collaborative agreements between Industry SMEs, the supply chain of Industry capabilities won't grow to meet the Defence Industrial Capability Plan.

Our current major Defence projects will not be achieved, and everyone stands to lose! We now we need to encourage, motivate, and even mandate collaboration at all levels of industry and government within defence.

Air Force is currently undergoing a major capability transformation. It is already looking towards industry collaboration, with the transition to the fifth-generation F-35, the introduction of the P-8A Poseidon and modernisation of key assets like the E-7A Wedgetail. This capability transformation has leveraged industry involvement heavily, as defence primes, like Lockheed Martin, Boeing, and Northrop Grumman are working with Australian SMEs like Quickstep, Marand, and Chemring to provide domestic and international supply chain and logistics opportunities.



The growing importance of integrated, global supply chains, particularly those supporting international projects like F-35, has highlighted the role domestic industry can play in enhancing the capability and development of a joint force.

As part of LAND400 Phase 2 program, the total acquisition cost of the vehicles is \$5.2 billion. The Australian industry content of the project was raised significantly through the tender process to over 50 per cent, demonstrating the benefits of Defence and industry working together. Australian industry will contribute over 75 per cent for sustainment of the vehicles.

A recent example of effective SME collaboration in Defence is the awarding of Major Support Provider to the partnership between Nova Systems, Qinetiq and PWC. This partnership lead by Nova shows that collaboration can compete on a stage typically held by Primes.

These companies are all strong in a range of attributes. By coming together they were able to amplify their capabilities and allow a single contract for the Government.

History shows the success of the ANZAC Ship program that saw collaboration at an operational and industry level. The construction drew on the skills and expertise of hundreds of local suppliers, sub-contractors and Tenix employees. The economic benefits of the program involved more than 3,000 companies in Australia and New Zealand. It generated almost 8,000 jobs and contributed \$3 billion in additional gross domestic product and \$4 billion in direct investment.

Recently at Euronaval, a number of South Australian SMEs announced collaborations to support major shipbuilding projects including REDARC Electronics and Rowlands Metal Works and SAGE Automation and Spanish company Detegassa.

At LandForces, Daronmont Technologies signed a collaborative agreement with DST Group. This agreement is off the back of a recent project with the goal to work jointly on a future technology project.

These announcements are proof of the appetite in industry and defence for collaboration. If we mandate collaboration through ASDEFCON contracts then more of these partnerships will happen.

Challenges faced when applying collaboration to the Defence sector

Collaboration is not something that can be achieved overnight. Many challenges are often faced before true effective collaboration is achieved. In Defence, the challenges are faced by both Primes and SME.

For Primes, there is the challenge of managing an ever-increasing array of suppliers and SME who protect their IP and resist change.

There is a clear lack of trust between the Primes and SME. Primes flow down negative aspects of contracts such as LD and penalties to SME, discouraging collaboration and shutting down the potential for a positive relationship.

SMEs have a sense of entitlement and lack the knowledge to work in the Defence Industry. They lack the resources and understanding to collaborate effectively with each other and present to a large enterprise able to provide a more whole capability. SMEs are open to collaboration but lack the experiences.

Primes are unwilling to change their attitudes and behaviors, constrained by their procedures and processes. They are not open to change the way they see and work with SME.

Often however the failure to collaborate flows down from the top. Commonwealth contracts define how a Prime should operate with SME. ASDEFCON contracts don't support or promote collaboration; they seek a single Prime.



One of the fundamental challenges that must be addressed for true collaboration is trust. Trust works both ways, and it is up to all parties to be willing to align with each other and be open to sharing their knowledge and IP through a relationship building process.

Why is it Difficult?

According to research conducted by the DTC, to improve the number of collaborative ventures across industry there are quite a number of issues that need to be considered.

- Primes tend to be bureaucratic machines that are generally risk adverse, and can struggle to work with the entrepreneurial behavior of SME
- Primes are often constrained by their multitude of procedures and corporate governance requirements
- SME's normal business methods are very single minded and often adversary in nature
- SMEs don't like sharing, have often grown organically and are therefore very protective of their business and IP
- SME often has a sense of entitlement and often lacks the knowledge required to work in the Defence Industry
- SME commonly lacks the understanding of how to collaborate effectively with each other to create a larger and stronger capability
- Collaboration is a very different business model to what the majority of SMEs have dealt with

The CoA does not provide any guidelines or direction on how it would support and encourage a culture of collaboration to enhance industry capability. CoA contracts often involve complex capability problems. It's not a one size fits all, however they want a single point of culpability, normally the Prime. CoA Contracts do not support or promote collaborative alliances.

The hard road to building the relationship

SME needs active support from the CoA, who should be promoting and possibly mandating industry collaboration to drive improvement in Sovereign Industry Capability through the Defence Industrial Capability Plan.

The CoA should be developing for industry, guidelines and standards that provide framework that enables Primes and SME to safely engage and develop collaborative business ventures. The collaboration objectives need to cover development and process needed to create the new venture, whilst taking into consideration the individual /separate needs of each participating company, so they can continue successfully in their own right.

The lead and coordination role needs to be championed by a Prime or one of the larger SMEs, to facilitate initial discussions leading into relationship negotiations. The collaboration needs to have short and long-term sales objectives and reasonably secure channels of sales and growth beyond the initial sales objectives.

Throughout the process of creating collaboration, it is essential that appropriate Risk and Opportunities are identified and actively managed, and the effects of the collaboration on the individual companies considered.



How can collaboration be achieved in defence

Implementing effective collaboration and overcoming the challenges faced by industry will be painful in the short term, however the long-term benefits for defence primes and SME will far out weigh these pains.

To create a better and more effective collaborative environment for local industries in the defence sector, all parties will need to change the way they behave and work.

This can be achieved through developing trust, improving communications and building stronger relationships. Primes need to move away from being ruled and controlled by contracts, and instead focus on creating a relationship aimed at developing a capability with subs, rather than just creating a contract.

Primes must understand and acknowledge the weaknesses and challenges of SME, and using their vast resources and experience, accept the responsibility to help develop and work alongside SME.

Primes have the knowledge, experience and resources to help and empower SME, to collaborate both with the Prime and with other SMEs to deliver greater capability. On the flip side, SME needs to be open to changing the way they do business and changing the process by which they conduct projects. They must allow people in to help them develop, and be open to sharing their knowledge freely.



RECOMMENDATION

Defence and the Commonwealth must look to mandate collaboration through the ASDEFCON. Contracts must not simply state that collaboration must occur, but rather provide guidance or templates on how it can effectively be performed.

These contractual documents could include Agreement Contracts, Relationship or teaming principles, drawing from existing guidance of documents such as ISO 44001. The ultimate goal of these vehicles is to create a positive, productive relationship between multiple parties, to enable them to work more closely and provide a greater capability at a reduced effort.

Collaboration agreements may outline how all parties will work to provide a greater capability through a closer relationship rather than through contractual means.

Industry groups, such as DTC, could provide mediator services, whereby a group of SMEs may employ an experienced contract manager to assist them to generate a collaboration agreement amongst them or with a Prime.

They may take an active role in negotiating the terms of such an agreement, developing teaming plans or charter and a set of guidelines outlining how each party behaves in the collaborative process.

Additionally, ISO 44001 provides the framework and requirements to help establish collaborative partnerships and business relationships.

It is important that these agreements define the means by which companies behave and work together, with the goal to produce a product or capability. A collaboration agreement could outline the principles by which knowledge, ideas or technology is shared through working groups and workshops. Teaming principles could outline the way partners participate in stakeholder meetings or design reviews.

Achieving effective collaboration is not seamless, however Industry is under pressure to adapt and work together to ensure that it effectively contributes and thrives within the defence industry.



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