

**Discussion paper  
response  
Submission  
No 14a**

## **INQUIRY INTO DEFENCE INDUSTRY IN NEW SOUTH WALES**

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# Response to New South Wales Legislative Council Discussion Paper: Defence industry in New South Wales

## Executive Summary

This follow up submission is made on a personal basis by **Christopher Skinner** BSc(Eng) MEngSc MIET MIEAust MACS CPEng Captain RAN (retired), who is an active participant in defence and engineering institutions in NSW.

The key issues discussed in this submission relate to selected questions posed by the Standing Committee on State Development in their discussion paper [Reference 2] as follows:

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## Executive Summary

This submission includes brief responses to most of the questions posed in the discussion paper [Reference 2]. Further information will be provided by the author on request

## References

1. NSW Government 2017. New South Wales: Strong, Smart and Connected Defence and Industry Strategy 2017. NSW Government. 'The NSW Government Defence and Industry Strategy.'
2. New South Wales. Parliament. Legislative Council. Standing Committee on State Development. Defence industry in New South Wales – Discussion paper. November 2017. ISBN 9781920788278

## Abbreviations

ACRV	Australian Centre for Robotic Vision	Within Queensland University of Technology, Brisbane
CASG	Capability Acquisition and Sustainment Group	Defence customer

## Terms of Reference for the Inquiry into Defence Industry in NSW

That the Standing Committee on State Development, with reference to the New South Wales: Strong, Smart and Connected Defence and Industry Strategy 2017, inquire into and report on opportunities to incentivise and grow the defence industry in New South Wales to generate economic development and in particular:

- a. maximise opportunities for NSW-based companies from Defence's growing exports and investment in defence capability – in both acquisition and sustainment
- b. encourage defence industry innovation, research and education including developing the future workforce
- c. identify targets, programs and projects for defence spending in New South Wales
- d. maximise the economic benefits of locating defence force bases and defence industry in the regions
- e. how to establish and sustain defence supportive communities
- f. further enhance collaboration between the NSW Government and Commonwealth agencies
- g. any other related matter.

## Defence Industry in New South Wales      Summary of questions

The committee is seeking your views on how to support the defence industry in New South Wales. This is an opportunity for individuals and organisations with an interest in this area to provide specific feedback on what they would like to see the committee recommend to the NSW Government. Below are questions, based on the evidence received to date, to help you write your submission.

### Chapter 1: The defence industry in New South Wales

**Question 1 12** What additional measures, if any, should the NSW Government implement to improve coordination across government agencies, to support the delivery of the New South Wales: Strong Smart and Connected, The NSW Government Defence and Industry Strategy? See below

**Question 2 12** Should the NSW Government establish a whole of government Ministerial Council to provide effective governance of the New South Wales: Strong Smart and Connected, The NSW Government Defence and Industry Strategy implementation? Probably a good idea

If so, what form should this body take, and who should it be comprised of? **The Council should include academic representation such as the New South Wales Chief Scientist and Engineer**

## Chapter 2: Supporting defence industry growth

Question 3 14 What more can the NSW Government do to ensure that its commitment to Defence and the defence industry is clear to stakeholders?

1. Ensure that Defence asset and infrastructure **sustainment** is fully understood to comprise:
  - a) Maintenance of the required safety, effectiveness and environmental standards
  - b) Modification to resolve issues in design, manufacture, materials or obsolescence
  - c) Modernisation to respond to changes in the operational environment or changes in requirements for safety, efficiency and sustainability
2. Expand the range of scientific research and development, technologies and engineering processes to include **artificial intelligence, machine learning, robotics and autonomous vehicles**

Question 4 17

a) What are the potential benefits of an aerospace precinct at the Western Sydney Airport and how can the NSW Government support this initiative? **Extensive benefits that will flow from optimisation of sustainment and logistics operations**

b) What further steps can the NSW Government take to support New South Wales's strengths in critical defence capability areas? **See response to question 3**

Question 5 17 What steps can the NSW Government take to support the enhancement of Australian sovereign defence capability? **Explain full what is meant by sovereignty in industry, comprising sovereign design, construction and manufacture, test and evaluation, operation and sustainment**

Question 6 19 What further steps can the NSW Government and the defence industry take to optimise its chance of success in securing Future Submarine basing and accompanying sustainment work on the east coast of New South Wales?

**Form a task force covering submarine design, construction, systems integration, test and evaluation, operation, sustainment and end-of-life decommissioning, including the future possible adoption of nuclear propulsion.**

**Study very closely the timeline and other briefing materials published by Naval Group and CASG at the PACIFIC 2017 exhibition and industry briefings in Sydney in October 2017. The milestones and major deliverables were well described and each of them is relevant for New South Wales**

**Take an active role in the selection and sourcing of steel for all naval construction especially the Future Submarine**

Question 7 24

a) What steps can the NSW Government take to increase understanding of New South Wales defence industry capability with potential for export? **Survey potential customers for export products and services**

b) What steps can the NSW Government take to enable New South Wales based defence industry to take full advantage of the supports provided by the Australian Government in this area? **Publish details of those supports**

c) Should New South Wales seek to identify a state based export target to improve performance in this area? **Such a target is only useful if it is expressed in a manner that encourages the desired**

activity for example design and marketing of products, rather than plain economic or employment statistics

If so, what factors should the NSW Government take into consideration in determining this target? Educational outcomes; career progressions for young people; technology transfers; intellectual property creation

d) How best can the NSW Government support and lead a collaborative 'Team Australia' based culture to maximise the economic benefits for all states and territories from Defence expenditure?

Concentrate on the innovation in what Australia has to offer the world markets. There is little point in offering commodities that can be produced elsewhere at less cost and/or other comparative benefits

#### Question 8 26

a) What steps can the NSW Government take to better understand defence industry capabilities in New South Wales?

Look at the industry capabilities from the perspective of the customer. Defence NSW should take this approach to ensure defence industry is customer focussed

b) What role should Defence NSW have in building connections between local industry and primes?

c) Is the development of a Defence Capability Directory, such as that developed in the ACT, a useful model for the NSW Government to consider and adopt? No comment

Question 9 27 Are there any additional steps that the NSW Government and ACT Government can take to enhance collaborative working arrangements for the benefit of defence industry?

#### Question 10 30

a) What actions are currently being implemented by the NSW Government and other educational providers to promote STEM skills in primary, secondary, and tertiary education institutions?

b) What further steps can the NSW Government take to promote STEM subjects and associated defence industry careers? Explain the nexus between STEM skills and future success in innovation, and the relevance of defence industry in contributing to national innovation

Should the NSW Government launch an advertising campaign to promote the study of STEM subjects as well as promote New South Wales as a technology leader? Yes, but first explain what these skills represent and why they are needed to succeed in the 21<sup>st</sup> century

c) Should the NSW Government take steps to embed defence-related industry interaction, within the education syllabus? Yes, but only as part of interaction with all industries.

#### Question 11 31

a) What steps can the NSW Government take to close gender gaps in the participation of females in STEM career pathways as relevant to the defence industry?

b) What barriers exist for females seeking to undertake STEM education and access defence industries? What steps can the NSW Government take to address such barriers?

### Question 12 32

- a) What benefits have been delivered by the ME Program to date? Based on this evidence, what steps should the NSW Government take to support the program and explore its roll out across the state?
- b) Are there any other best practice examples being implemented in New South Wales that also merit further consideration?

### Question 13 32

- a) Should the NSW Government consider a defence industry technical skills development fund as part of its strategy to entice prospective students to undertake defence industry related courses at universities?
- b) Are there other approaches the NSW Government can take to promote tertiary pathways for defence industry workers?

Yes, by encouraging the idea of dual-use technology whereby innovation can consider potential markets in both civil and defence applications

Question 14 33 Should the NSW Government help facilitate increased coordination between government, the defence industry, and universities in the creation of university courses that meet the needs of defence industry businesses? Yes, but these must emphasise dual-use, and also export potential. They should not be purely focussed on the defence needs of today

How can the NSW Government achieve this? The Ministerial council would provide broad oversight and in addition there should be working groups in specific technological domains, for example robotics

Question 15 34 What measures can the NSW Government take to improve access to advanced trade courses in regional areas? For example, should the NSW Government provide financial support to create defence industry traineeships and apprenticeships in regional areas?

Question 16 35 What further steps can the NSW Government take to promote collaboration between Defence, industry and academia?

Above all else, the NSW Government should acknowledge publicly that a sovereign industry capability is good for the economy and for all those who participate in the industry. There must be clear evidence that all participation is helpful to the goals of each organisation and individual who contributes in any way. The NSW Chief Scientist and Engineer well understands this perspective and her leadership in this would be pivotal.

Secondly there must be much greater intercourse in academic and professional publishing to make available every possible learning from defence activity. The past tendency to treat any defence research as requiring secrecy must be strenuously opposed. There are ample examples of this being undertaken effectively, for example the Submarine Science, Technology and Engineering Conference series run by the Submarine Institute of Australia., from which all papers are published.

Question 17 37 What steps can the NSW Government take to further support research and innovation activities being undertaken by defence stakeholders?

**Question 18 38** What steps can the NSW Government take to support New South Wales defence industry, and academic institutions tap into the opportunities created from Federal Government investment in a national space agency?

### Chapter 3: Supporting Small and Medium Enterprises (SMEs)

#### Question 19 44

- a) What steps can the NSW Government take to further support relationships between Small and Medium Enterprises and key suppliers and procuring entities?
- b) What steps can the NSW Government take to ensure that federal support programs and initiatives are comprehensively utilised by New South Wales based industry?
- c) Should the NSW Government invest further in supporting Small and Medium Enterprises to access trade shows and exhibitions? Are current efforts sufficient and are there any lessons for improvement?

#### Question 20 45

- a) Is there widespread industry support for the changes to the procurement landscape as identified by the Australian Defence Industry Interest Group?
- b) What actions should the NSW Government take to enhance the flow of Defence procurement opportunities to New South Wales Small and Medium Enterprises and New South Wales industry more generally?

#### Question 21 46

- a) What further actions can the NSW Government take to provide additional support to businesses seeking to become 'defence ready'? What form should this support take?

**Publish the criteria by which they can be assessed as 'defence ready', then explain what they mean and how they may be attained**

- b) What other examples of exemplar practice exist to support New South Wales industry become 'defence ready'?

#### Question 22 48

- a) What actions can the NSW Government take to assist Small and Medium Enterprises to access the finance necessary to pursue business opportunities? Does the establishment of a body, with responsibilities akin to the Export Finance Insurance Corporation, merit further investigation?
- b) What steps can the NSW Government take to ensure that New South Wales industry is aware of and is making use of the services offered by the Export Finance Insurance Corporation?

#### Question 23 50

- a) What enabling infrastructure projects should the NSW Government target to support defence industry start up and growth?

**Jointly with the Commonwealth, develop facilities especially test ranges for land, air, sea surface and underwater and cyber test and evaluation. Make them all available on a cost-reimbursable basis for any private industry including international companies**

- b) What measures can the NSW Government take to help attract defence industry workers to regional areas?