

**Discussion paper
response
Submission
No 6a**

INQUIRY INTO DEFENCE INDUSTRY IN NEW SOUTH WALES

Organisation: Regional Development Australia - Sydney

Date received: 12 February 2018

Monday 12th February 2018

ABN: 42 973 708 239
Suite 3E, Lvl 3, 470-474 Church Street
Parramatta NSW 2150
Telephone: +61 2 9890 7804
Facsimile: +61 2 9890 7814
Postal Address: P.O. BOX 2495
North Parramatta NSW 1750
www.rdasymdney.org.au

**Chair NSW Standing Committee on State Development
Parliament House
Macquarie Street Sydney NSW 2000**

Dear Sir,

Re: Response to Discussion Paper (released in November 2017) for Inquiry into Defence Industry in New South Wales.

Regional Development Australia (RDA) Sydney in conjunction with Sydney Aerospace Defence Interest Group (SADIG) welcomes the opportunity to provide further information to the NSW Standing Committee on State Development conducting the inquiry into the defence industry in NSW. RDA Sydney and SADIG broadly support the NSW Government stated intention from this Inquiry to identify opportunities to incentivize and grow the defence industry in NSW.

Background: Since 2011 RDA Sydney has facilitated and managed the formation and on-going secretariat of SADIG with key industry and research stakeholders. SADIG currently represents around 225 members in the defence and aerospace industries and their supporting services and research sectors. The formation of SADIG has brought together key industry champions from different industry groups to work collaboratively with one voice. Members and supporting partners in national and state industry associations are working together to further develop, and grow existing and additional business opportunities for aerospace & defence manufacturing industries and sustainment and service businesses in NSW.

Our recent RDA Sydney Submission and SADIG Statement to this Inquiry into Defence Industry in New South Wales, were made on 15 June 2017, (by letter from Dr Robert Lang Chair RDA Sydney) and on 3 August 2017 (by a statement to the Inquiry from Chris Williams, Executive Chairman of SADIG). Copies of this Letter and Statement have been provided to the Inquiry.

The following responses are provided to complement and enhance the strategic approach and objectives set out in the 'New South Wales: Strong Smart and Connected – Defence and Industry Strategy 2017', and



the 'Defence industry in New South Wales – Discussion paper' for the Standing Committee on State Development that was released in November 2017.

Chapter 1 : The defence industry in New South Wales

Question 1

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*?

Recommendation: Senior level representation from NSW Department of Industry and Defence NSW Unit for future Premiers and Treasury Committees, and relevant Upper House Standing Committees. In 2016 and 2017, SADIG supported the formation of an informal group of NSW Parliamentary Friends of Defence (NSWPFoD). Bipartisan support for this group came from elected representatives, in regional and urban electorates. An initial event was held with introductions to research staff and visit to demonstrate research and defence applications at the UNSW Innovation Centre and Engineering/Advanced Composites facility on Monday May 16th. This interaction with defence research and industry interests is supported and enables improved understanding of defence interactions with elected representatives in diverse regions.

Question 2

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? If so, what form should this body take, and who should it be comprised of?

Recommendation: The importance of governance for implementation of this Strategy is fundamental to achieving measureable outcomes. If a new Ministerial Council on defence is considered by the NSW Government it should include oversight provisions for Defence NSW and their proposed initiatives and projects for defence industry development (Ref. NSW State Initiatives in Appendix 1.3 Page 29 of NSW Defence and Industry Strategy). The proposed Ministerial Council must have representation from industry (Sydney and Regions) and research/skills organizations with government/defence personnel included. If the model of NSW Ministerial Councils as used in Fisheries and Ageing are to be replicated then it is recommended that research on their key deliverables are fully assessed with measurement of innovation practice.

Chapter 2: Supporting defence industry growth

Question 3

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

Recommendations: Defence NSW with existing industry groups as collaborators, can be the vehicles for consistent messaging and future communications with defence and industry stakeholders in Sydney and regional areas of NSW. Utilize the regional networks of Local, State and Federal government economic development agencies to enhance relevant and timely communication of industry activities, economic development news, major projects, seminars briefings etc. The resourcing and sponsorship of open days (such as the 2016 Greater Hunter Makers Festival) and industry trade shows (eg Pacific Expo held every 2 years in Sydney) are significant events to engage and profile defence business with regional community and stakeholders. Defence NSW can be the important link in ensuring take up of opportunities for tenders, liaison through Industry Capability Network (ICN) on registration of capability, listing of work packages, procurement opportunities with Primes.

Question 4

a) What are the potential benefits of an aerospace precinct at the Western Sydney Airport and how can the NSW Government support this initiative?

Recommendations: A recent analysis by RDA Sydney identified the potential for industry development and employment generation opportunities created by the presence of a Western Sydney Airport. This report was released in 2016 and titled '*Strategic Industries Development around the Western Sydney Employment Area*'. Defence and aviation/aerospace industry investment and employment generation opportunities are substantial and will be created by the construction and operations of a Western Sydney Airport and the associated development of specialist industry clusters and research institutions. This report highlighted (Section 3.2 Pages 35-41) major opportunities in the aerospace and defence sectors including:

- Developing major additional global aerospace and defence OEM supply and MRO maintenance capacity and capabilities by creating a virtual collaborative industry cluster utilising the latest new materials and technologies.
- Developing a new Aerospace /Autonomous Space Centre bringing together the NSW industry and research autonomous and space industry capabilities and strengths.
- Establishing a NSW Defence Science Institute (like Victoria) with industry and university research institutions, and the NSW Chief Scientist's office and DoI to accelerate opportunities nationally and internationally for NSW.

NSW Government planning and Defence NSW leadership will be needed to ensure adequate economic corridors and technology defined land is allocated for future industry development. The establishment of clustered business hubs for specialist high technology enterprises is strongly recommended for the Western Sydney Airport. The inclusion and investment by Government of skilling and education infrastructure as a stream for talent development is recommended. On site campuses for vocational learning (TAFE), technology focused high schools and university higher level pathways for advanced qualifications are supported and would be a long term investment for the NSW Government to enhance and develop the pool of local talent for higher order jobs in aerospace and aviation.

The NSW Government and defence related industry bodies will need to provide the leadership impetus, resources and planning vision to make this a reality, and ensure the benefits of longer term economic development are realized.

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

Recommendations: NSW Government has supported the establishment in 2017 of the NSW Defence Innovation Network (DIN), based on a collaborative structure for research and development with six NSW universities. Plans include funding research in programs of the Defence Industry & Innovation - Next Generation Technologies Fund (NGTF). With the majority of the 9 identified NGTF 'Technology Priority Areas' established in research and development activities of these NSW based DIN partner universities, there is significant potential to grow sovereign research capability for defence business.

With the large number of NSW defence bases and dedicated training bases for the ADF in NSW, the potential exists to enhance the testing and field trials for equipment used by army, navy and airforce. A recent proposal to establish a non-exclusive shared zone for testing unmanned systems in a marine environment off the NSW coast should be fully investigated, and likewise dedicated areas for flight testing of unmanned aerial systems are supported by the NSW research and business community.

Question 5

What steps can the NSW Government take to support the enhancement of Australian sovereign defence capability?

Recommendations: Establish a register of critical sovereign defence capabilities and facilities located in NSW. Ensure consistent and open dialogue through Defence NSW is established with the operators and

owners of these capability areas. (Two examples are the FBE Garden Island facilities, and Carrington at the Port of Newcastle). This approach can provide certainty and impetus to maintaining and enhancing the investment by Primes in key industries that operate in NSW.

The defence research specialization identified through the NSW DIN and University capability listings, is an important building block and compilation to grow the research and development commercial applications. This activity can potentially create new opportunities for furthering sovereign capabilities with a NSW focus.

This Inquiry is also referred to the DATA 61 + Expert Connect Beta site. Data61's Expert Connect is designed to boost industry-researcher collaboration by creating a publicly searchable database of Australia's research expertise. Profiles for over 45,000 researchers from over 200 research organisations have been automatically created by drawing on data from IP Australia, ARC, NHMRC, Web of Science and The Conversation. These specialists are providers of capability relevant to Australian skills sets in many areas relevant to sovereign defence priority areas.

Question 6

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?

Recommendations: Ensure that regular communication and advocacy proceeds by Defence NSW with industry specialists to inform and update key decision-makers in the SEA 1000 Program. Regular capability updates should be managed by government on defence ready companies as suppliers to Primes, or in supply chains to international naval industry companies. As stated by Chris Williams, Executive Chair of SADIG and quoted in this Inquiry, "there would be a lot of benefit if defence NSW were to have a relationship with primes to link them easily to the skill set they need", suggesting that a first stop shop type responsibility would be of considerable value. This recommendation also relates to Question 8. The DATA 61+ Expert Connect mentioned in Question 5 above is relevant to skill-set matchings.

Question 7

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

Recommendation: Ensure regular up to date capability listings, and export ready defence companies information are maintained for use with in-bound and out-bound trade missions. .

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?

Recommendation: Ensure regular email communication and briefings are held with all agencies of support, in the major NSW centres in Sydney and regions to inform and connect parties.

c) Should New South Wales seek to identify a state based export target to improve performance in this area? If so, what factors should the NSW Government take into consideration in determining this target?

Recommendation: If setting export targets is considered, then a measure of new revenue or foreign export sales is appropriate, bearing in mind that collecting the relevant data in a timely way is problematical.

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?

Recommendations: Initiate collaboration structures with interstate and territory governments, as well as the defence departmental heads and key state government funded agencies, with the goal of developing non-competitive alliances. Assistance through workshops and mentored advice to business is recommended in addressing the barriers to entry for 'defence-ready' exporters such as the US

requirement for International Traffic in Arms Regulations (ITAR), for counterfeit training, for cybersecurity requirements, and for licensing in ISO certifications on quality.

Question 8

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

Recommendations: Establish user friendly internet based user portal for defence industry capabilities to be registered and updated. In collaboration with groups such as CDIC, ICN, Austrade and interstate providers. Produce promotional material and resources to attract users and registrations which will allow ready access to the stored information.

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

Recommendations: Support share and promote regular briefings seminars and workshops by Primes to inform in key areas of capability for NSW industry. Demonstrate to industry the importance and value of the Global Supply Chain Program in Australia. Establish improved communications with the range of stakeholders in industry in NSW, via Twitter, LinkedIn and other media like Defence Connect, and ADM. Provide regular updates by roundtable briefings and emails of key achievements to plan in terms of the recommendations from this Inquiry and meeting the objectives of the 'New South Wales: Strong Smart and Connected – Defence and Industry Strategy 2017'. Refer also to the Recommendation in Question 6.

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?

Recommendations: Very useful to have directories readily available and easily accessible. Critical to have up-to-date information on companies and their capabilities, and any data of this nature needs to be readily accessible for users, and relatively easy to update. An on-line platform with suitable resourcing and communications skill sets to manage would address many of the previous failed attempts to get national capability established and working for the ambitious future defence needs.

Need to incorporate activities and data sourced from CDIC and ICN national into any future directories to give integrity to the capability database and use it for ready reference and linking companies to opportunities for tenders. Any supplier capability directory would assist Primes to source more local suppliers and also assist second tier and third tier players to identify potential partners for tenders, contracts and/or joint venture partners.

We agree with the AI group proposition that 'Defence NSW could undertake an audit of supplier capabilities and identify regional strengths. Clear defence supplier concentrations exist in Western Sydney, the Hunter and Illawarra/Shoalhaven' and 'This knowledge would greatly assist Government in marketing the capabilities of the State and be able more accurately to direct inquirers to the most appropriate source(s) for their needs.'

Linkages to the DATA 61 + Expert Connect should be established, to enable ready access for identification of skilled people in their searchable database.

Question 9

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?

Recommendations: Improved communication of priorities and achievements for NSW and ACT Government initiatives, joint tender facilitation by Government where identified capability exists (for example in the area of space industry systems capability, microsatellites and in research and development).

Utilise the relationship of University of NSW and Australian Defence Force Academy in Canberra to highlight pathways to learning and defence career promotion, with profiling and open days to promote the engagement of new entrants.

Question 10

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?

Recommendations: RDA Sydney and SADIG have supported STEM education programs over many years, and the encouragement for young people to take up STEM related subjects in secondary schools and universities is one of the core strategies of our charter.

This Inquiry is referred to a paper (attached) prepared by Engineering Consultant Mr Jon Bradshaw, who is Chair of the SADIG Skills Committee. The paper highlights major challenges and urgent needs for reform of the Australian education sector. This need is reinforced by the AI Group submission to this Inquiry which opens with the statement *'Any initiatives for improving STEM outcomes in schools and outreaching to industry must be driven by the Minister for Education. Without that level of leadership, drive and accountability, nothing will change. Also there is community resistance to the importance of STEM and technology careers. It has not been acknowledged that 70% of future jobs will require STEM schools. Unlike earlier generations STEM is not optional it is mandatory for well-paying and secure employment.'*

Initiatives like the F1 in Schools, SUBS in Schools, ME Program, iSTEM course, PTech Program, Cubesat Program, Space Camp USA, FBE innovation Hub Hack for Navy, and many others provide very useful engagement for high schools to encourage learning and career choice. Searchable directories for these programs and key contacts would assist schools and their staff to source relevant information to establish these programs. We understand that for existing programs to gain traction it takes very passionate and dedicated individuals in schools management positions to make these programs work well, and deliver outcomes.

b) What further steps can the NSW Government take to promote STEM subjects and associated defence industry careers? 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?

Recommendation: We support the comments and recommendations made by AI Group in response to this question.

c) Should the NSW Government take steps to embed defence-related industry interaction, within the education syllabus?

Recommendations: We support the comments and recommendations made by AI Group in response to this question. This Inquiry could support and assist change as detailed in the AI Group proposal for the current NSW system for payment of high school teaching hours, as quoted - *'A major policy obstacle in NSW Department of Education is the widespread blocking of students who wish to undertake a VET course subject at TAFE (especially in electrotechnology as school teachers do not have the knowledge) because their time-out could result in a reduction of the payment for their teaching hours. This is a disgrace and a huge disservice to industry and to students and their families. It has been an intractable problem for industry for more than 2 decades. A very cheap solution would be for Defence NSW or another arm of Government to provide a fund to pay schools for the "lost" teaching hours of the student and hence remove this artificially caused obstacle. It would be a win/win/win solution and very easy to do.'*

Question 12

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?

Recommendation: We refer the Inquiry to the recommendations made by AI Group in response to this question.

b) Are there any other best practice examples being implemented in New South Wales that also merit further consideration?

Recommendation: Refer to responses in Question 10 above.

Question 13

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?

Recommendation: This approach should be considered by NSW Government in the context of improving the pathways for VET students to progress their career options through university with merit based scholarships provided through this fund.

a) Are there other approaches the NSW Government can take to promote tertiary pathways for defence industry workers?

Recommendations: The AI Group has highlighted in its Submission the value derived from the P-Tech Program funded by the Federal Department of Education at Hunter River High School. The benefit of having facilitators who work with teachers within the school and develop partnerships with employers outside the school is a model that is supported. If the employer partners are Defence Primes or suppliers to defence then the pathways for potential for new entrant workers to gain defence industry knowledge is enhanced.

Question 14

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? How can the NSW Government achieve this?

Recommendation: Refer to information provided in Jon Bradshaw submission.

Question 15

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?

Recommendations: Regional areas of NSW can benefit by enhancing the roles and course materials available through TAFE NSW. As AI Group has stated *'TAFE provides students with technician training in electrotechnology subjects, mechanical engineering and fabrication. Whilst these provide trade qualifications, TAFE also provides Advanced Diploma courses for post-trade qualifications. It is not unusual for 4th year apprentices in advanced manufacturing to be undertaking an advanced diploma in their 4th year. In fact, many advanced manufacturing companies prefer employees to advance along a trade pathway before transitioning to a degree because they obtain practical skills that university courses do not impart or impart to craftsman level. The trade pathway produces much more practically oriented engineers'*.

If Defence NSW were to provide merit based defence scholarships at both university and TAFE level it would enable and encourage students to enroll in subjects related specific to Defence operations and support. Encouragement to defence related employers to provide placements and work experience should be included in any strategy for the offer of scholarship award.

Question 16

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

Recommendations: SADIG (with support of the NSW Department of Industry) since September 2015, has initiated and been a strong advocate and facilitator for the NSW Defence Innovation Network (DIN). This collaborative structure for research and development has progressed with commitment from 7 other NSW

universities. Plans include research in programs of the Defence Industry & Innovation - Next Generation Technologies Fund (NGTF) and further DIN business research matching and support activities. The majority of the 9 identified NGTF 'Technology Priority Areas' are well established in research and development activities of these NSW based DIN partner universities, with significant potential to grow defence business opportunities, and engage with industry to commercialize solutions for use by defence. Interest to expand this network to other universities should be investigated by Defence NSW and DIN.

Question 17

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

Recommendation: A number of NSW based academic and research institutions are active and interested to participate in innovation and applied research directed to improving the national defence capabilities. These include ANSTO at Lucas Heights, Data 61, CSIRO, participants in the SADIG supported Defence innovation Network (DIN), Australian Centre for Space Engineering Research, and many other specialists researchers in the CRC Network, and ARC funded structures through universities. Mapping and defining capability of these bodies and individuals will assist in directing future key resources in NSW to enable major defence project facilitation and funding support.

Question 18

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?

Recommendation: Background information on improving the NSW position in the Space Industry is provided in the SADIG report attached, titled: SADIG's Astronautics and Space 2.0 Forum on 18th June 2015. Key recommendations for government and industry development are contained in this report.

Chapter 3: Supporting Small and Medium Enterprises (SMEs)

Question 19

a) What steps can the NSW Government take to further support relationships between Small and Medium Enterprises and key suppliers and procuring entities?

Recommendation: Answered in Question 8.

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?

Recommendation: Answered in Question 8.

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?

Recommendations: Current NSW Government efforts in hosting and profiling of SME's in Trade Shows are very useful, and can provide a measure of the outcomes from this investment to enable commercial outcomes. Defence Team Australia, Austrade and other Federal Government agencies should assist NSW in export facilitation, and profiling at international events, trade missions and expositions.

SADIG has previously hosted a trade show training event, in preparation for the SME's exhibiting at Pacific 2017. Similar learning events could be supported and resourced as part of the offering by Defence NSW to exhibit at future trade shows sponsored by Defence NSW.

Question 20

a) Is there widespread industry support for the changes to the procurement landscape as identified by the Australian Defence Industry Interest Group?

Recommendation: The AIDN proposal, 'that a strategic and integrated system be put in place to manage all aspects of SME participation', is worth further investigation by the Defence NSW as to the scope, reporting requirements and potential implementation by the Federal Government.

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?

Recommendation: Refer to Question 8 response. Investigate the options that have been developed by other States in optimizing and communicating defence opportunities through groups like that established in the Defence Teaming Centre in South Australia.

Question 21

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?

Recommendations: In collaboration with CDIC and other service providers, Defence NSW could resource and stage seminars and workshops for SME's to provide details of how to become 'Defence Ready' or 'Introduction to the Defence Market'. This could be linked to a series of events that demonstrate to aspiring businesses how they can assess the defence market and understand the process and new entrant activities in order to pursue opportunities. On-line directories and easy access referral processes can also be facilitated by industry development staff.

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

Recommendation: Assess what is being delivered by Victoria, and other States where courses and seminars are currently being offered, then resource and stage Defence NSW and CDIC, SME focused events in Sydney and Regional Centres (Hunter, Nowra, Wagga etc.) where existing and potential defence suppliers are known to have an interest. These events should include options for 'new entrants' and 'first time exporters' and existing defence suppliers that need updates on opportunities or needs to implement accreditations and licensing.

We thank you for the opportunity to provide further input to the Standing Committee on State Development Inquiry. If there are matters needing further explanation, or questions on the items raised in this Submission then please contact our Acting Executive Officer, Therese O'Dwyer

Yours sincerely

Dr Robert Lang
Chair
Regional Development Australia, Sydney