

# **Senate Economics References Committee's inquiry into the future of Australia's naval shipbuilding industry**

Queensland Government  
response

February 2017

## Executive summary

The Queensland Government welcomes the Senate Economics References Committee's inquiry into the future sustainability of Australia's strategically vital naval shipbuilding industry (the inquiry), and identifies a strong ability and capacity to contribute effectively to this sector.

Increasingly, Queensland is recognised as the 'go-to' state for defence (and other security service provision). Queensland's defence industry supports more than 6500 full time equivalent jobs. In 2015–16, \$3.8 billion in defence contracts were awarded to Queensland-based companies (an increase of \$200 million from the previous financial year). The Queensland Government understands there are significant economic and industry development opportunities through the:

- development of contracts relating to naval ship and submarine building
- design, management and implementation of naval shipbuilding and submarine defence procurement projects in Queensland
- utilisation of local content and supply chains
- integration of offshore work and supply chains in Queensland
- driving of innovation, improving workforce and business skills and building on our competitive advantages to ensure Queensland remains an attractive investment destination.

## Scope

The Department of State Development (DSD) is the administering agency for:

- Defence Industries Queensland (DIQ)
- the Queensland Defence Industries 10-Year Roadmap and Action Plan (Defence Roadmap), which is currently under development and anticipated to be released in 2017.

DIQ was established by the Queensland Government to support the state's defence industry and promote a smart, connected and efficient service that is nationally and globally competitive.

In recognition of its role in developing defence industries in Queensland, this response was prepared by the Department of State Development (DSD), on behalf of the Queensland Government, in consultation with the following state agencies:

- Department of the Premier and Cabinet
- Queensland Treasury
- Department of Infrastructure, Local Government and Planning
- Department of Transport and Main Roads
- Department of Science, Information Technology and Innovation
- Department of Education and Training
- Department of Tourism, Major Events, Small Business and the Commonwealth Games.

## Current status

### *Capability*

Queensland defence industries offer defence and security agencies strategic advantage with superior products, service and value. Additionally, Queensland's marine sector boasts capabilities in the following areas:

- communications and control systems
- boat and ship construction
- refit and repair of defence, commercial and recreational vessels up to 275 metres in length
- contract maintenance and through life support
- design and engineering support during refit and maintenance of vessels
- marine equipment and component manufacture
- heavy engineering
- armour manufacture for defence vessels
- fibre composites manufacturing for defence and commercial vessels
- manufacture and supply of ballistic panels for vessels
- maritime training
- dry docking facilities
- ship lifts catering for vessels up to 600 tonnes
- maritime ship building up to 1000 tonnes, repair and maintenance
- slipways catering for vessels up to 3000 tonnes, including the largest slipway in northern Australia, in Cairns
- development of fibre-reinforced composites and metal-composite hybrid materials for lightweighting of structures and components.

### *Industry*

Recognising a changing national and global security landscape, Queensland has been able to stimulate investment and innovation for new defence capabilities, generating economic and industry development opportunities for the state.

This is reflected by several globally competitive marine companies having headquarters or significant operations in Queensland and which are listed in **Appendix 1**.

DIQ also administers the Queensland Defence Industries Capability Directory, which enables efficient searches for Queensland companies with specialist capabilities that service the full spectrum of the defence supply chain (including manufacturing, defence services, defence technology, and research and development).

## *Facilities*

Queensland is host to several ports and marine precincts that ensure Australia's national and economic security; deliver vital facilities and support services to the Australian Defence Force (ADF); and provides a critical contribution to local economies and employment markets. These include the:

- Port of Brisbane
- Cairns Marine Precinct
- Gold Coast Marine Precinct.

Additionally, the Queensland Government is committed to sustainable port development and ensuring the significant contribution the state can provide to the naval ship and submarine building industry is balanced with the need for protecting the Great Barrier Reef in the long term.

In accordance with the *Sustainable Ports Development Act 2015*, the Queensland Government is advancing master planning for the priority ports of:

- Gladstone
- Abbot Point
- Townsville
- Hay Point/Mackay.

Priority ports represent the state's major regional bulk-commodity ports operating in, or adjacent to, the Great Barrier Reef World Heritage Area and can serve as critical hubs for defence supply chains. In 2015–16, these priority ports represented approximately \$34 billion in export value.

The Queensland Ports Strategy also includes transitional arrangements to improve shipping access to the Port of Cairns. The proposed expansion of the cruise shipping industry in Cairns and the wider North Queensland region will improve the cruise offering along the east coast of Australia. In addition, Royal Australian Navy (RAN) and cargo ships using the Port of Cairns will benefit from improved access and efficiencies.

## **Future developments**

The following reflects the Queensland Government's position on the future sustainability of Australia's strategically vital naval ship and submarine building industry, as per the inquiry's terms of reference.

### *Development of contracts relating to naval ship and submarine building*

The Queensland Government recognises the Department of Defence (DoD) is the largest procurement agency in the Australian Government and is responsible for some of Australia's most complex procurement activities. Queensland Government procurement practices are aligned with those of the DoD with a view to achieving value for money; encouraging competition that is balanced with ensuring full, fair and reasonable access for local suppliers; and accountable and transparent decision making.

The Queensland Government identifies that major project attraction and facilitation is key to driving economic development. To assist business and industry proponents for naval ship and submarine building (and to act as central point of liaison between the Australian and state government agencies), the Queensland Government, through DSD, is able to provide coordinated case management support. Services provided for projects accepted for case management support include:

- streamlining of approvals and access to Queensland Government contacts
- negotiating and identifying resources and links across Queensland Government agencies to overcome obstacles
- identifying opportunities to progress projects such as approval pathways, resource availability, site selection and access to economic data and business tools
- facilitating introductions with local companies and service providers
- liaison across government about projects and its contribution to Queensland's economic development
- providing support, advice and assistance to attract new project investment and facilitating investment to support major projects
- supporting engagement by companies with Queensland communities, local governments and landholders
- providing site-specific assistance and a range of other services including cultural heritage and native title matters.

The Queensland Government recognises specialised case management support will be vital to the success of naval ship and submarine building projects, as they:

- will make a significant contribution to the Queensland economy through business opportunities, exports, employment and infrastructure provision
- require multiple approvals and active facilitation across governments and stakeholders
- are complex and sensitive.

### *Design, management and implementation of naval shipbuilding and submarine defence procurement projects in Australia*

The capacity and capability of Queensland's naval ship and submarine building industry is technically diverse and geographically dispersed. As highlighted, Queensland (particularly in regions) has a number of fabrication, engineering, manufacturing and maintenance small-to-medium enterprises (SME) contributing to the design, management, implementation and innovation of activities within this industry.

For example, Buchanan Advanced Composites (BAC) (in Toowoomba) is expert in the design, engineering and production of composite fibre technology products for marine industrial applications as well as offering custom plug and mould manufacturing and prototyping.

BAC was selected by the Australian Submarine Corporation (ASC) to undertake the design and build for the Collins Class submarines' externally mounted cases, comprising 11 sections (with each containing up to 2000 pieces of critically positioned laminates) covering the full length of the 78-metre submarines.

BAC's key strengths of consistency, cost control and quality assurance, ensured it met both the ASC's and the RAN's expectations.

The Queensland Government recommends working in partnership with the Australian Government to increase the focus on Queensland businesses that can support and provide innovation to the nation's naval ship and submarine building industry.

### *Utilisation of local content and supply chains*

Queensland already offers a diverse range of expertly developed goods and services that support the RAN, including:

- maritime ship building up to 1000 tonnes, repair and maintenance
- ballistic protection for personnel, watercraft and aircraft
- communication and control systems
- design and engineering support during refit and maintenance of vessels
- maritime training
- supply of electronics and fibre composites to Collins Class submarines.

The Queensland Government recognises the key capabilities required for Australia's naval ship and submarine industry in the 21<sup>st</sup> century include, but are not limited to:

- composite material development and manufacture
- advanced manufacturing (including titanium casting)
- electronic systems integration
- autonomous and/or unmanned systems
- geospatial analysis and intelligence.

The hallmarks of successful Queensland defence companies are their:

- technical innovation and capacity to produce high-quality, low-volume defence products
- alignment to global defence standards, regulations and accreditations
- ability to rapidly re-tool to provide operational flexibility.

The Queensland Government is committed to growing manufacturing in Queensland as a critical driver of innovation and productivity in the economy. An important leading edge to manufacturing is the advanced manufacturing sector which comprises the technological advancements of manufacturing in terms of products, processes and innovative business models. Part of the Queensland Government's Advance Queensland agenda includes development of the Advanced Manufacturing 10-Year Roadmap and Action Plan (Advanced Manufacturing Roadmap), which is designed to set a path for the growth of advanced manufacturing and foster the transition of existing manufacturers into world-class advanced manufacturers that can deliver benefits to other industries and their supply chains (including for defence).

This is being further supported through the Made in Queensland (MIQ) program, an important initiative within the Queensland Government's \$200 million Jobs and Regional Growth package. MIQ, which complements the Advanced Manufacturing Roadmap, is a statewide program that will provide \$20 million in grant funding to support Queensland's SMEs in the manufacturing sector to become more internationally competitive and adopt innovative processes and technologies.

More broadly, under the Advance Queensland program the Queensland Government is building an environment of collaboration between governments, industries, research authorities and communities to drive an innovative and entrepreneurial culture that will universally improve procurement approaches, local content and supply chains.

### *Integration of offshore design work and supply chains in Australia*

Queensland is home to an expansive and modern resources sector and has a long and successful understanding of how to integrate offshore design work into local supply chains. Additionally, Queensland's capability and expertise is underpinned by:

- a stable regulatory and business environment; geographical advantages (e.g. proximity to the Asia/Pacific region)
- major defence bases and assets.

These advantages help to consolidate Queensland's position as a preferred location to integrate offshore design work and supply chains in Australia.

Acquiring defence equipment from offshore providers has been traditionally viewed as presenting the best-value-for-money option (and necessary to capitalise upon the reduced cost and risk for development). However, Queensland is well positioned (and globally competitive) for addressing the emerging risks that may come from this procurement approach, including:

- exposure to long supply chains
- changing original equipment manufacturers (which is significant given the complexity and coordination required to manufacture naval ships and submarines)
- changing costs and supply of raw materials.

SMEs in Queensland have a track record of contributing high quality niche services and the manufacture of high-specification products to national and global value chains. Such local production capability mitigates the above risks and other adverse shocks (e.g. an international incident requiring urgent deployment of defence forces and assets). This capability is increasing in Queensland. Queensland has a vibrant and growing startup and innovation culture, is increasing expertise in emerging platform technologies and creating the collaborations that enable participation in defence supply chains.

The Queensland Government recognises participation in global supply chains is not driven solely by price. In an increasingly complex and challenging fiscal and economic environment, rigorous and robust project evaluation will:

- deliver the highest quality outcomes
- align agencies' policies, projects, programs and activities to the stated priorities

- prioritise individual projects within programs
- ensure project procurement and resource allocation decisions achieve maximum value for money and benefit for all stakeholders.

The Queensland Government supports the detailed industry analysis being undertaken by the DoD and the Centre for Defence Industry Capability to identify existing or latent capability in Australia's SME base that can support priority defence projects for the next 20 years (and beyond). The Queensland Government will continue to contribute to the development of the Defence Industrial Capability Plan to ensure Queensland industry and research capability is recognised and will serve a vital role in delivering the 2016 Integrated Investment Program.

### *Opportunities for flow-on benefits to local jobs and the economy*

Queensland accounts for 100 per cent of the RAN Surveying Ships and 30 per cent of the RAN Armidale Class Patrol Boat fleet. Subsequently, local economies are deriving significant benefits from the location of approximately 26 per cent of the ADF workforce, and more than 1500 RAN personnel, across Queensland regions. There is scope to increase Queensland's ability to host additional defence personnel (from Australia and/or Singapore), given the state offers world-class dedicated military training areas at Shoalwater Bay (Rockhampton) and Cowley Beach (Innisfail). These locations represent an excellent opportunity to create local jobs through the maritime supply chain and logistics sector (as well as to local businesses supported by the spending patterns of those employed by the defence forces).

Cairns will be the major refit and sustainment hub for the Pacific Patrol Boat Replacement Fleet (SEA 3036). Austal Ships is proposing to conduct support and maintenance of the vessels in Cairns (with operational maintenance for the Pacific Patrol Boats valued at \$400 million over their lifetime). Austal Ships is a global ship builder and defence prime contractor with industry leading capabilities in the development of both defence and commercial vessel platforms. There will also be opportunities for Cairns (and the broader Far North Queensland region) to overhaul the new Offshore Patrol Vessels (SEA1180), for which construction is scheduled to commence in 2018.

On 18 May 2016, the Australian Government provided an election commitment to invest \$24 million to upgrade the Cairns Marine Precinct. This will not only deliver vital facilities and support services to the ADF, but will provide a significant contribution to the local economy and jobs by:

- upgrading the wharfs and floating docks within the Cairns shipyards, allowing improved servicing of larger vessels
- reconfiguring the Cairns refit yards so they can operate more effectively and boost their competitiveness
- upgrading workshops, hardstands and ship refit areas.

It is noted the \$24 million investment is in addition to the Australian Government's \$420 million investment to develop additional wharf space and other support facilities at the HMAS Cairns naval base. Enhancing and modernising the Cairns Marine Precinct will ensure Cairns becomes a long-term and sustainable maintenance hub for marine vessels (naval and commercial) in northern Australia.



On 17 August 2016, a Statement of Co-operation between the State of Queensland, Australia and United States Department of Navy was signed by the Premier and Minister for the Arts the Honourable Annastacia Palaszczuk and the United States Deputy Under Secretary of the Navy for Management Mr Thomas Hicks as part of the Great Green Fleet initiative. The Great Green Fleet is a US Navy commitment to source 50 per cent of fuel from renewable sources by 2020. The participants intend to hold discussion on the research, development, supply and sale of advanced drop-in alternative fuels to power naval surface ships and aircraft so as to realise the benefits that such fuels can offer with regard to operational requirements, economic activities and environmental benefits.

Townsville is one of two primary locations in Australia for mounting ADF operations. The new Landing Helicopter Dock ships will be able to berth in Townsville for extended periods of time (as well as foreign-flagged defence vessels). In addition to generating growth and jobs in the logistics and maintenance/service industries, there are potential flow-on benefits to tourism and hospitality providers.

The expansion of the Port of Brisbane may also create opportunities for the RAN into the future as it provides several competitive advantages over other Australian jurisdictions, including:

- Moreton Bay providing a protective buffer between the port and the open sea, allowing for safe docking and repairs/maintenance
- ease of access to Asia, the South West Pacific and the United States Navy base at Guam
- being one of Australia's few nuclear ports.

More broadly, delivering a greater proportion of shipbuilding and maintenance, repair and overhaul activities onshore will help offset the costs of capability acquisition and through-life sustainment (by virtue of the variety of tax instruments that may be applied to various elements of the project supply chain).

It is reiterated the Queensland Government is committed to working in partnership with the Australian Government and locally based SMEs (contributing both technical expertise and component production) to develop the nation's naval ship and submarine building industry as it recognises innovation of technologies and/or processes may be transferrable to other critical industries (e.g. advanced manufacturing; energy; telecommunications).

*Appendix 1*

<b><u>Company</u></b>	<b><u>Description</u></b>
BAE Systems Australia	A defence and security company that provides total capability in areas such as through-life support, security, logistics and systems integration for the Australian Defence Force (ADF).
BSE Maritime Solutions	A ship repairer with full service dockyard facilities in Brisbane and Cairns that provides rapid response services to defence and commercial clients.
Buchanan Advanced Composites	A composite company with capability in design, finite element analysis, and testing, prototyping, tooling and manufacture.
Canniffe Engineering	A company servicing a range of industries, including defence, to provide a broad range of engineering capability in machining, fabrication and general engineering.
Craig International Ballistics	A leading supplier of body armour to the ADF and police forces.
DMS Maritime	Australia's largest maritime service provider that sits under Serco Systems to provide project management and systems integration to the defence, paramilitary and commercial sectors.
Dynamic Marine Services	A provider of engineering solutions and structural steel fabrication in the marine, defence and civil industries.
EM Solutions	A company specialising in the design and manufacture of technologically superior microwave terrestrial and satellite equipment, including E-band microwave links and a multi-band Satcom-on-the-move system.
LSM Advanced Composites	A company specialising in the production of custom-made manufactured items with capabilities in design, machining, tooling, manufacture, autoclave curing and digitising and tolerance control.
Marine Engineering Consultants	A company offering complete engineering services, aluminium boat building, project management, refits and repowers.
MIPEC	A company that provides slipway and marine repair services, vessel construction, general fabrication and support activities to the marine sector.

Norship Marine	A privately operated vessel maintenance and storage facility on 5.6 hectares in Cairns that delivers comprehensive refit and repair services, and has travel lift machines with 160 and 400 tonne capacity.
P&W Marine Engineers	A company with an in-house foundry specialising in propulsion systems with capability in custom design and manufacturing, maintenance and servicing, computer numerical controlled manufacturing, spare parts supply, propeller re-pitching, polishing and balancing.
Raytheon Australia	A company providing solutions in mission systems integration and mission support including systems engineering, project management, integrated logistic support and contract management.
Rhino Linings Australasia	A company that develops protective coating products for retail, commercial and industrial applications, including high-quality, high-performance hybrid polyurethanes, pure polyuria and epoxies. It also offers solutions to industrial abrasion, corrosion, containment, impact and chemical attack problems.
Sea Transport Solutions	A company offering specialist marine design and consulting services for both the defence and commercial sectors.
Tote Systems Australia	A manufacturer and supplier of ballistic armour with products including body armour; vehicle, aircraft, watercraft and building armour; and training and riot equipment.
Trinity Fire Services	A company servicing portable fire equipment, hose reels and lay-flat hoses, equipment testing and consultancy services, as well as the installation of marine and special hazard systems and alarm systems.
Tropical Reef Shipyard	A private supplier of comprehensive ship-repair services for the commercial and defence markets with facilities including a 3000 tonne slipway catering for vessels up to 100 metres, a 350 tonne dry dock and full machine workshop.