

# NAVAL SHIPBUILDING INDUSTRY STRATEGIC WORKFORCE PLAN



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# NAVAL SHIPBUILDING INDUSTRY STRATEGIC WORKFORCE PLAN OCTOBER 2019

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Sharing the commitment of developing Australia's sovereign naval shipbuilding workforce the below partners have collaboratively developed the Naval Shipbuilding Industry Strategic Workforce Plan.

**BAE SYSTEMS**  
**ASC SHIPBUILDING**

NAME AND TITLE

SIGNATURE

**NAVAL**  
**GROUP**

NAME AND TITLE

SIGNATURE

**ASC**

NAME AND TITLE

SIGNATURE

**LÜRSSEN**  
LUERSSEN AUSTRALIA

NAME AND TITLE

SIGNATURE

**LOCKHEED MARTIN**  
*Australia*

NAME AND TITLE

SIGNATURE

**SAAB**  
TECHNOLOGIES

NAME AND TITLE

SIGNATURE

An Australian Government Initiative  
**NSC** | NAVAL  
SHIPBUILDING  
COLLEGE

NAME AND TITLE

SIGNATURE

## SECTION 1

### Background and Strategic Context

The Australian Government has committed to grow its Defence budget to 2% of GDP over the next decade. The level of Defence spending is unprecedented (\$196 billion) as Defence modernises its platforms for the air, land, sea and joint environments making Australia an attractive market.

Recent policy changes associated with industry being recognised as a fundamental input to capability and calling for Australian industry capability and indigenous employment as critical contract requirements, has encouraged many Defence Primes to strengthen their presence in Australia.

Activities have commenced in both South Australia and Western Australia with the stand-up of the Naval Shipbuilding College and the start of construction of the Arafura class Offshore Patrol Vessels and preparation for the commencement of the Hunter class Frigate and Attack class Submarine programs.

With multiple large programs mobilising simultaneously, the Australian Government is aware of the challenge this presents to the industry and is prepared to significantly invest in capability creation with the Naval Shipbuilding College as the catalyst. It is seeking leadership from industry and collaboration to generate the skills and capabilities the future workforce will need, for industry to effectively execute its strategic programs and avoid a wage war.



## Observations of the industrial landscape:

- Competition in the market continues to intensify with new entrants and international defence firms strengthening their presence in Australia, building relationships with customers and supply chains.
- Lendlease (infrastructure and building contractor) continue to be a major supplier to Defence due to the building of priority infrastructure associated with the Osborne Naval Shipyard precinct and F35 facilities. In addition, Laing O'Rourke will require significant resources associated with the Osborne North SEA1000 site.
- Naval Group Australia is ramping up along with its supply chain to execute the SEA1000 submarine program. The mobilisation of this program is concurrent with BAE Systems Australia/ASC Shipbuilding's mobilisation of the Hunter class Frigate Program.
- There is significant activity in the combat systems space for Lockheed Martin and Saab in support of the Attack class submarine and Hunter class Frigate programs.
- Lüerssen Australia is the prime contractor for 12 Arafura class Offshore Patrol Vessels and are currently mobilising this program in South Australia for the first two vessels and Western Australia for the final 10.
- Naval Shipbuilding Management have just been awarded the APCP contract to provide Maritime Sustainment to Landing Helicopter Dock ships. They will be required to grow a workforce in Sydney to provide this support.
- Lidos has been increasing their workforce in Melbourne and Canberra in support of the JP2096 and other ICT related projects.
- Rheinmetall are currently mobilising to execute LAND 400 Phase 2 which will be delivered in Queensland. Land400 Phase 3 is currently being tendered which will require a further pull on resources.
- South Australia has also recently been awarded the Australian Space Agency, which we anticipate will generate a growth in demand for priority skill areas.
- Based on the nature of existing and mobilising contacts, there will be strong competition for specific talent segments nationally.
- There is a concern regarding the capabilities of the vocational and tertiary sectors in supporting this growth of employees and the need for additional instructors. There will also be pressures around their ability to support industry with relevant training given the rapid pace of change in technology.
- Significant pressure remains strong for talent with adjacent industries, including Oil & Gas, Mining and Infrastructure both predicted to grow over the coming years. Compounded by this is the growth within Professional Services that will also drive competition for talent.



## SECTION 2

### Industry and Naval Shipbuilding College Collaboration

To address the issues identified, the CEOs of BAE Systems Australia, Naval Group Australia and ASC Submarines created the CEO Shipbuilding and Sustainment Workforce Forum to work collaboratively on the development of a cost-effective workforce, which is capable of executing current and future maritime acquisition and sustainment programs. The membership of this group has been extended to include other prime contractors including Lockheed Martin Australia, Luerssen Australia and Saab Australia. The work of the Group is supported by the National Defence Industry Workforce and Skills Facilitator.

Working with the Naval Shipbuilding College and Australian Government entities, the Group will ensure shipbuilding construction, major sustainment and system integrators have a sufficient, strategic enterprise level perspective on workforce development matters. The Group will engage with Government to represent industry input on strategic shipbuilding/sustainment challenges and related future policy initiatives.

The Naval Shipbuilding College will play a critical role in modifying vocational and tertiary studies to align training/course materials to the needs of shipbuilding and sustainment. The Naval Shipbuilding College has also developed an endorsement process to confirm vocational and tertiary programs of study to support naval shipbuilding.

#### The CEOs have developed the following mutual objectives:

- Development of a holistic view of the workforce dynamics for their collective organisations and the risks that this will present which they are unable to solve alone.
- Better utilisation and reconstruction of the current workforce to meet new program needs.
- Collectively working to increase supply in the most cost-effective manner.
- Providing effective guidance and governance to ensure the Naval Shipbuilding College meets industry's workforce needs.
- Through partnership to have transformed and improved skills system underpinning the CSP.

The CEO Shipbuilding and Sustainment Workforce Forum is cognisant that the growth of the naval shipbuilding workforce is a whole of government endeavour – consequently they have developed an action plan to compliment the excellent work already undertaken from within Defence, in particular the National Naval Shipbuilding Office.

Industry, along with the Naval Shipbuilding College, must also engage with education and training stakeholders to recommend changes to federal and state policies and practices to promote naval shipbuilding skills growth.







## SECTION 3

# Workforce Planning Approach Overview

The Naval Shipbuilding Strategic Industry Workforce Plan utilises industry derived workforce data projecting over 30 years into the future. This is coupled with detailed supply analysis to determine market interventions required to assure availability of the future workforce and allows high priority job roles to be determined. All organisations endorsing this document have supplied such workload information plus other key Primes and SMEs in the Australian Naval Shipbuilding Enterprise. A common set of job role definitions, or a common taxonomy, has been developed to ensure a shared understanding of critical skill areas for each job, allowing a common focus. These data collections have occurred over the last 18 months and now allow for the proper focus on the right, high priority jobs to be supplied at the right time for Industry.

A structured four step workforce planning model will be implemented to deliver the required industry resource outcomes. This model is summarised below.



## Overview of Model Steps

### Step 1: Define Requirements

The Naval Shipbuilding College collaborated with industry to define an agreed taxonomy of the required skillsets to deliver the naval shipbuilding program. This taxonomy will ensure there is a consistent understanding throughout industry of the competencies required for each job role to enable consolidated industry delivery strategies to be determined. Each defence contractor provided demand data to the Naval Shipbuilding College in order to develop a consolidated industry demand profile.

The Naval Shipbuilding College is also collaborating with industry to develop a consolidated listing of the priority skill areas in the short term (next two years), medium term (two-four years) and long term (four years +). This listing was developed considering the below factors. All skill areas confirmed are considered to have the same priority level.

#### 1 Mission priority

- are those skills or job families that are required to meet legislative, regulatory or service delivery ie Product Safety Engineers or Project Managers.

#### 2 Priority

- these skills that have been identified as global, national or state skills shortages – i.e. there is not enough people with the skills or qualifications to complete this work in the labour force to meet the current demand.

#### 3 Hard to fill

- are those roles where there are enough people with the skills or qualifications to complete this work in the labour market but they are either choosing not to work in their chosen field or the organisation cannot attract them.




## Step 2: Analysis


The Naval Shipbuilding College is conducting an analysis for each priority skill area to identify gaps in required competencies of industry and the existing Australian Qualification Framework (AQF). For each priority skill area a report with recommendations will be developed to detail proposed new competencies or training programs required to address these gaps.


The Naval Shipbuilding College is completing a national supply analysis across defence and adjacent industries for each priority skill area. The outputs of this analysis will be utilised to define specific strategies to address each of the priority skill area needs.


## Step 3 & 4: Design and Delivery

For each priority skill area, the analysis outcomes will be considered and a plan will be developed comprising of strategies across the below listed areas:

 **BUY** – strategies involving recruitment of existing resources from defence or adjacent industry. This could include local, interstate and overseas recruitment initiatives and marketing campaigns.

 **BUILD** – strategies involving the upskilling of resources from adjacent industries, development of revised or new training programs or enterprise wide programs (i.e. graduate or apprentice).

 **BORROW** – strategies involving utilisation of subcontractor resources to deliver required skills needs (this could involve strategies across multiple organisations)

 **BALANCE** – strategies involving the sharing of resources (either within one organisation or across organisations) to accommodate demand peaks and troughs.

Future Workload Demand is analysed to identify the top short, medium and long-term jobs priority to naval shipbuilding and jobs with the most focus required for mitigation of shortages.



## SECTION 4

### Plan Review Cycle

This plan will evolve over time and will be updated on a quarterly basis. At each review cycle the demand data will be refreshed and the listing of priority short, medium and long term skills will be reviewed to confirm any adjustment to key focus areas. Achievement against the agreed plan and any proposed revisions, including updated demand data, will also be considered by the Chief Executives on a quarterly basis.

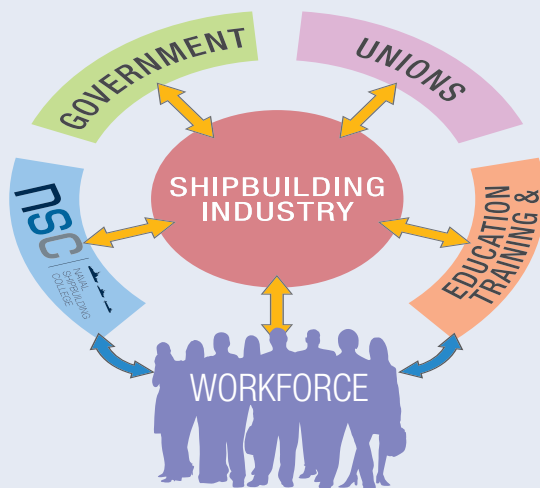
This plan will have limited distribution beyond the naval shipbuilding and integration companies and the National Naval Shipbuilding Office (NNSO). Agreement must be sought from the signatories for further distribution. The activities and achievements of this Group will need to be effectively communicated to a broader stakeholder group. This requirement is captured in the next section.



## SECTION 5

### Stakeholder Map and Communications

Below is a fundamental stakeholder map of the major institutions in Australia related to naval shipbuilding workforce development. Industry remains in the centre, impacted by the policies and practices of these institutions. This plan will ensure proper connection between the elements and provide feedback on policies and practices to maximise the effectiveness of the naval shipbuilding industry and build a long-standing sovereign capability.



The above stakeholder map highlights the collaborative nature of the naval shipbuilding industry.

**Government** refers to Australian Government and state government Ministers, government departments and agencies, including members of the Australian Defence Forces.

**Naval Shipbuilding College** refers to the Australian Government initiative that supports the development of an appropriately sized and prepared naval shipbuilding, sustainment and supply chain workforce.

**Unions** refers to representatives of large sections of the Australian workforces employed across the maritime industry by a range of businesses including Primes and supply chain businesses.

**Education and Training** refers to the public and private, primary, secondary, vocational, and tertiary institutions that educate Australian residents.

**Workforce** refers to the potential and actual workforce of naval shipbuilders, naval shipbuilding sustainment and supply chain companies supporting naval shipbuilding.

Effective broader communications with these stakeholders on the actions and achievements of the strategic group will be important. An effective communications approach from this strategic group will allow for:

- Elevating naval shipbuilding as a career of choice, by increasing community understanding of the diversity of skilled and professional career opportunities that will exist for the future workforce.
- Strengthening relationships and building awareness across all spheres of government about the economic and employment benefits that the naval shipbuilding industry provides.
- Industry wide collaboration to increase targeted communication into key workforce markets.
- Strengthening connections with stakeholders in the Small to Medium Enterprises and education communities.

Communicating the collective efforts of the Strategic Group will be achieved by the individual members of the collective, the Naval Shipbuilding College and Australian Peak representative bodies. A detailed Communications Plan will be developed.

Stakeholders will be engaged as part of this Workforce Plan. While this list will evolve, current stakeholders include:

- Australian Government Ministers; Defence, Defence Industry, Education, Training and Skills.
- The National Naval Shipbuilding Office.
- State Government representatives including Defence Advocates, Departments of Industry and Skills, Tourism and Education, Training and Workforce Development.
- Industry peak bodies including AiGroup, Defence Teaming Centre, Australian Industry Defence Network and Australian Defence Alliance.
- Cross sector peak bodies such as the National or State Minerals Councils, Business Council of Australia and relevant Unions.

The responsible lead for each specified issue and action is authorised to engage directly with the relevant stakeholders. Action plans should identify any stakeholder engagement activity.



## SECTION 6

### Supply Analysis Risks and Mitigations by Job Family

Detailed supply analysis is currently being conducted by the Naval Shipbuilding College and will be used to further refine the workforce development strategy and action plan. To date, the Human Resource Departments from the prime contracting organisations have shared their vision into demand and supply profiles enabling the following insights to be drawn. The analysis has been rolled up into four overarching job families: Engineering, Operations, Program Management, Supply Chain and Support.

The growth of the various segments of the naval shipbuilding workforce is being collated and analysed by the Industry and the Naval Shipbuilding College. This following section describes the pace of growth, resultant risks and attraction and training mitigations for each of these various segments.

In the medium to long term there will need to be an additional investment by all parties in early careers programs for all of these job families as well as stable employment opportunities within Australia to minimise leakage to shipbuilding industries overseas.

#### Engineering

The successful start-up of new ship and submarine programs, and successful maintenance of the Collins class submarines, is dependent upon a strong, technical workforce across a myriad of priority engineering disciplines. The majority of priority skill areas, discerned by near-term workload growth, compared to current anticipated supply, indicates that many engineering roles will be challenging to fill. This creates the need for potential, short-term immigration needs for these roles, or temporarily moving work off-shore or nationally within Australia. Improving attraction for these jobs is a priority near-term activity, and will include peak-bodies, education entities and other influencers (including the relevant state government and tourism boards). The Naval Shipbuilding College and industry is actively working with universities to examine current technical curriculums and developing bridging programs to transition technically trained individuals from adjacent industries and skill sets. Improving long-term attraction of engineers into naval shipbuilding will also be a focus in 2019 through working with primary and secondary schools.

PIC: NAVAL GROUP

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## Operations

The current shipbuilding pace and phase of construction indicates operations workload growth will intensify significantly in late 2021 and beyond. This longer-term timeframe should allow sufficient time for the Naval Shipbuilding College to perform training needs analysis of existing vocational courses, several of which have already been examined. This timing should also allow the Naval Shipbuilding Industry Reference Committee process to improve training packages related to the key trade apprentice training areas. Importantly, more near-term focus will also be required on quality and safety roles that are also included in this broad category.

## Program Management

This job family is a priority for the effective start-up of any major complex program and is especially true for naval shipbuilding. There is a priority near-term focus on examining adjacent industries.

Training needs analyses have been performed on the priority functions in this job family, including Project Management, Project Scheduling and Planning. It will be important to examine existing courses of study, develop new (perhaps shorter) training courses or develop bridging courses for incumbents from existing, adjacent industries, to meet the growth needs of the job family.



## Supply Chain

Priority near-term roles in this job family include purchasers, buyers and subcontract managers. In many cases, individuals will come from technical roles (Engineers) or estimating, and those with “business savvy” traits which can transition, with some formal development, into this near-term growth area. This movement will require development of meaningful job preparation material funding for students. Such movement of technical people would also further strain the growth of engineering job roles. Integrated logistics support roles related to transport and documentation is also a priority area requiring formal workforce development focus.

## Support

Key roles, such as Information Technology professionals, to support the digital transformation of naval shipbuilding are likely to be the most challenging workforce development issue in this job family. Near-term focus on these priority skill sets is required. The pace of change and software being used for digital transformation implementation plans must be considered in order to understand and determine the exact workforce challenges ahead. This is a significant risk in the medium-term which will require a dedicated workforce focus. In addition, the growth in size of naval shipbuilding and sustainment organisations will also increase the need for priority support areas such as Finance, Human Resources or Security. These needs will require an attraction campaign of opportunities for non-technical candidates to be involved with naval shipbuilding.

## SECTION 7

### Major Workforce Issues and Actions

A listing of the Enterprise issues and actions has been developed through extensive examination and collaboration within industry. These issues and subsequent action plans have been captured and are under ongoing review and action by Industry and the Naval Shipbuilding College. This workforce development action plan has numerous major actions, segregated into actions related to attraction, recruitment and retention and development of new employees in shipbuilding.

This Action list will continue to be actively reviewed by the Industry CEOs. Examples of current actions across each of the key focus areas are provided below.

- **Attraction** - Work with South Australia/Regional Tourism Boards to better market Adelaide as a great place to work and live - improving attraction for interstate workers
- **Recruitment and Retention** - Develop the processes, tools and infrastructure to enable work to be packaged and performed in other states.
- **Development** - Work with the VET sector and Universities to ensure appropriate paths are developed taking apprentices into professional job areas.







