



# Industry Report

Maritime Sector – Australia

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**VEDP**

Virginia  
Economic  
Development  
Partnership

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# EXECUTIVE SUMMARY

As the Australian Global Network Consultant to the Virginia Economic Development Partnership (VEDP), Foley & Associates was commissioned to prepare an in-depth industry report on the **Maritime Sector in Australia**.

This report is intended to provide Virginian exporters with a general overview of Australia's maritime sector, as well as offer specific insights into the opportunities across several industry verticals. We have structured this report into the following sections:

- **General Overview & Current Status of the Australian Maritime Sector**
- **Current Trends & Opportunities across the following key verticals which contribute significant value to Australia's maritime industry:**

- ✓ **Shipbuilding (Defense & Commercial)**

*Australia's shipbuilding industry is focused primarily on building capacity for the Royal Australian Navy (RAN), with defense shipbuilding accounting for ~ 65% of the industry. Some capabilities and existing resources used in naval shipbuilding and repair are also utilized in Australia's commercial shipbuilding industry.*

- ✓ **Maintenance, Repair & Overhaul (MRO), Sustainment**

*Repairing, modernizing and automating capital equipment, including major overhauls and refits/refurbishment as well as routine scheduled maintenance of naval vessels is an important aspect of Australia's maritime industry.*

- ✓ **Port Operations & Infrastructure**

*Australia moves ~98% of its international trade by sea. As more cargo has moved through Australia's ports over the past years, industry operators have invested in expanding and automating port and terminal facilities.*

- ✓ **Oil & Gas**

*There is continual investment in exploration, vessels and new technologies (e.g. an additional A\$125m (US\$87m) funding for resource exploration was announced by the Australian Government in 2020).*

- ✓ **Workforce Training**

*The Australian Department of Defense and industry are investing in training Australia's maritime workforce as demand for specialist skills in the industry (e.g. shipbuilding) continues to grow, and the workforce keeps pace with the impact of emerging technologies on the sector.*

- This report also provides information regarding **Market Entry Options, Industry Publications and Industry Events**.

We encourage any Virginian companies with questions or enquiries to contact VEDP for further information, and we look forward to continuing to assist VEDP and Virginian exporters in the Australian market.



# INTRODUCTION

## ECONOMIC OVERVIEW

As one of the richest nations in the world, Australia remains in a relatively strong economic position. Australia recorded 28 years of uninterrupted economic growth up until 2019, and with a GDP of US\$1.4 trillion, was the 14<sup>th</sup> largest economy globally and the 5<sup>th</sup> largest in the Asian region. Australia's track record of strong economic growth was catalyzed in part by microeconomic reform and a productivity boost in the 1990s, and then fueled by a terms-of-trade boom after 2000, as a global rise in resource prices increased the value of Australia's commodity exports.

As per the following image, Australia's GDP is expected to decrease by -4.5% in 2020 due to the impact of the COVID-19 pandemic, however is predicted to rebound with 4% growth in 2021 (IMF, June 2020). With the deployment of a A\$259 billion (~US\$181bn) economic support package in March 2020, Australia is now in a relatively strong position for economic recovery.



## WHY AUSTRALIA?

As an island nation, Australia's maritime industry is critical to defending the security of the nation's borders, as well as enabling 99 per cent of Australia's international exports with trading partners across the globe. Australia's coastline is over **60,000 km** in length and its search and rescue region covers more than **10%** of the Earth's surface.

Australia's maritime industry has an **estimated annual revenue of A\$6.88 billion (~US\$4.78bn)**, adding A\$2.32 billion (~US\$1.6bn) to the Australian economy in 2018-19. At least **10%** of the world's sea trade passes through Australian ports and almost **80%** (by value) of Australia's imports and exports are carried by sea.

In the defense space, the Australian Government has recently announced **additional defense funding over the next decade**, intended to strengthen Australia's defense capability to respond to growing challenges within the Indo-Pacific. **An additional A\$75bn (~US\$52bn) will be provided to the Royal Australian Navy (RAN)**, which will be spent on border security, maritime patrol, anti-submarine technology, aerial and undersea warfare, and undersea surveillance.

Due to Australia's **strong military alliance with the USA** and **extensive defense interoperability with the United States Armed Forces**, Virginian companies are well positioned to take advantage of upcoming opportunities related to this increased funding.

## KEY FINDINGS

- ✓ Under the Naval Shipbuilding Plan introduced in 2017, the Australian Government has committed to investing **~A\$90 billion (~US\$61.7bn)** into **three major naval continuous shipbuilding programs**, which are intended to grow Australia's naval shipbuilding and sustainment industries and to enhance the Royal Australian Navy's (RAN) capabilities.
- ✓ It is expected that many of the **systems and naval platforms** required for the government's continuous build programs, in particular the future submarines and future frigates, will be **sourced from the USA**.
- ✓ The Australian Government's investment into the RAN will continue into the next decade, with an additional **investment of A\$75 billion (~US\$52bn) into Australia's maritime capabilities** announced in July 2020 as part of the **2020 Force Structure Plan**.
- ✓ Aside from the ongoing MRO and sustainment requirements associated with the RANs current 46 commissioned vessels, the **Future Submarine, Major Surface Combatant and Minor Naval Vessel** naval shipbuilding programs will create **additional sustainment opportunities** as those vessels enter service and the DoD transforms their sustainment practices under the current **Maritime Sustainment Model (FMSM) Project**.
- ✓ Australia's port and harbor infrastructure sector is undergoing **expansion and automation** to improve efficiency. Priority areas include the development of **'smart' ports, deep water container port facilities across Australia's east coast** and the **expansion of port and terminal infrastructure**.
- ✓ **Over 80 per cent of Australia's gas resources exist in offshore areas** and **~90 new offshore wells are drilled each year**. Key opportunity areas that will assist to develop the full potential of these remote resources include advances in **exploration, vessels & services** and **new technologies**.
- ✓ In 2018-19, the Australian Defense Force (ADF) invested A\$897 million (~US\$537 million) into **simulation technologies** to develop **realistic future training environments**, and investment into maritime workforce training (especially shipbuilding, digitalization and cybersecurity skills) will continue to increase.
- ✓ Two major US companies, **Huntington Ingalls Industries** and **Kellogg Brown and Root**, were awarded the contract to manage the **Naval Shipbuilding College (NSC)**, which is focused on growing Australia's naval shipbuilding workforce.
- ✓ This report is intended to assist Virginian companies to develop a suitable **market entry strategy** by highlighting potential options for **establishing a presence in Australia**, as well as recommendations for reviewing and responding to **current and future opportunities** within Australia's maritime industry.
- ✓ Virginian companies interested in exploring opportunities in Australia's maritime sector are also encouraged to engage with **key industry associations**, and subscribe to relevant **industry publications** to remain abreast of current issues and developments in the sector.

# CURRENT TRENDS SUMMARY

## SHIPBUILDING (DEFENSE & COMMERCIAL)

### Defense Shipbuilding - General Overview

- The Royal Australian Navy (RAN) currently consists of [46 commissioned vessels](#) and over 16,000 personnel.
- There are a relatively small number of companies with advanced naval shipbuilding capabilities that are **Australian-owned and headquartered**. Key examples include [ASC](#) (wholly-owned by the Commonwealth), [Austal](#) and [Civmec](#).



- Austal claims to be “Australia’s global shipbuilder”, and operates a US subsidiary, [Austal USA](#), which is headquartered in Mobile, Alabama.
- These defense prime contractors are supplemented by several **Australian subsidiaries of multi-national shipbuilding companies**, for example [BAE Systems Australia](#), [Luerssen Australia](#) and [Naval Group Australia](#).
- The Australian shipbuilders are also supported by a significant number of **Australian SMEs** with experience in the design, manufacture and delivery of naval shipbuilding products and services.
- Australia’s naval shipbuilding sector has experienced record growth since the introduction and commencement of the government’s [Naval Shipbuilding Plan](#) in 2017.
- The focus of the Plan is to build a strong, sustainable and innovative Australian naval shipbuilding industry and sustainment capability that will **generate industry growth, employ thousands of workers, and provide the RAN with the assured capability to fight and win at sea.**



Principle Naval Shipbuilding Yards

## Recent Developments & Industry Opportunities

- In 2017, the Australian Department of Defense (DoD) released the [Naval Shipbuilding Plan](#), outlining the Government's vision to establish a sustainable national naval shipbuilding industry. The Australian Government has committed to investing approximately **A\$90 billion (~US\$61.7bn) in new naval ships and submarines up until ~2055 to deliver the national program of works.**
- More recently in July 2020, the Government has also committed an additional **A\$75 billion (~US\$52bn)** in Australia's maritime capabilities over the next decade until 2030.
- The engagement of the Australian subsidiaries of multi-national naval shipbuilders such as DCNS, BAE Systems Australia, Lockheed Martin Australia & Luerksen Australia highlights that **Australia's local shipbuilding industry requires the expertise and support of experienced international companies** to effectively and efficiently build Australia's own naval shipbuilding enterprise.
- Overall, **Australia maintains a comprehensive level of engagement and dialogue with the USA**, involving the **exchange of information, technology, and ideas.**
- The Australian Government intends to **leverage the USA's unparalleled naval shipbuilding industry and expertise in the full lifecycle of major maritime projects**, as part of the development of Australia's national naval shipbuilding enterprise. According to the Australian Government's 2017 [Naval Shipbuilding Plan](#),

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*"Australia's alliance with the United States, and the access to advanced technology and information it provides, will remain critical".*

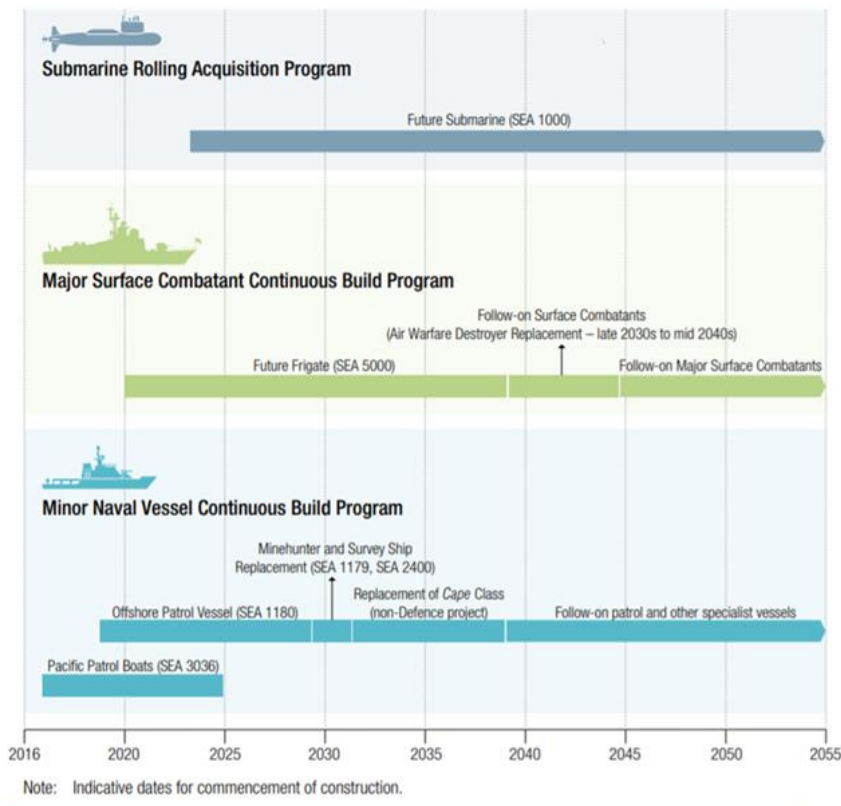
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- Many of the **systems and naval platforms** required for the government's continuous build programs, in particular the future submarines and future frigates, will be **sourced from the USA**. For example, **Lockheed Martin Australia** has been selected as the combat system integrator for the Submarine Rolling Acquisition Program.
- The procurement of international, and in particular US, naval systems and platforms will provide Australia with **"access to new technologies and advanced manufacturing techniques in ship and submarine sustainment and combat system integration"**, while also **providing Virginian suppliers with greater opportunity to export their products and services to Australia and build relationships as trusted suppliers to the RAN.**



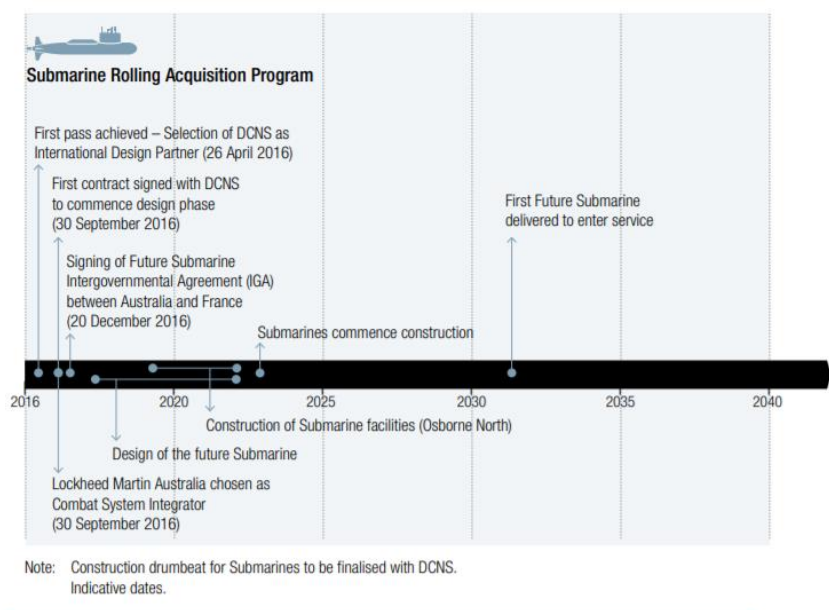
## Naval Shipbuilding Plan

As outlined in the following image, the Naval Shipbuilding Plan encompasses the following three **Naval Shipbuilding Continuous Build Programs**:



### Submarine Rolling Acquisition Program - Future Submarine (SEA 1000)

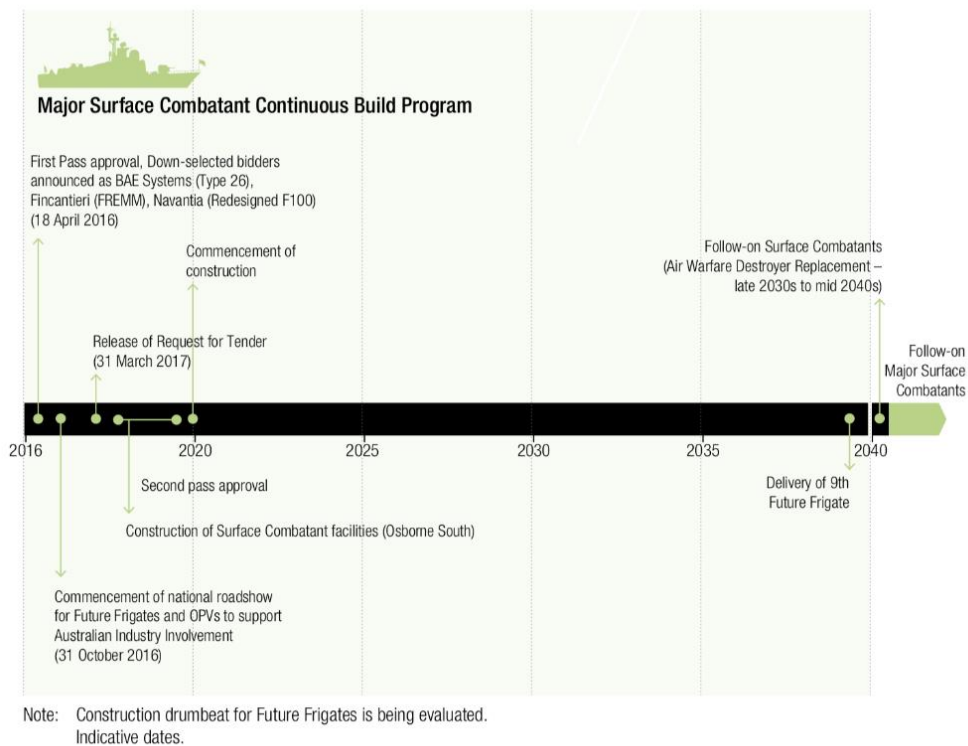
- Under this program, the Australian Government will **deliver twelve regionally superior submarines** to be built at the Osborne Naval Shipyard in South Australia.
- Construction of the first submarine is expected to commence around 2022-23, and enter service in the early 2030s. Overall, the program is forecast to extend into the late 2040s, with the final submarine expected to enter service in the early 2050s.
- In 2016, the Australian Government selected **DCNS** (now known as Naval Group Australia) as an international partner for the project, with DCNS commencing the design phase of the project in late 2016.



- The government also announced that **Lockheed Martin Australia** had also been selected as the combat system integrator for the program.
- Partnerships with leading international companies such as **DCNS** and **Lockheed Martin Australia** are also expected to enhance Australia's own capabilities in regards to the specialized advanced manufacturing processes and new technologies required for the construction of submarines.

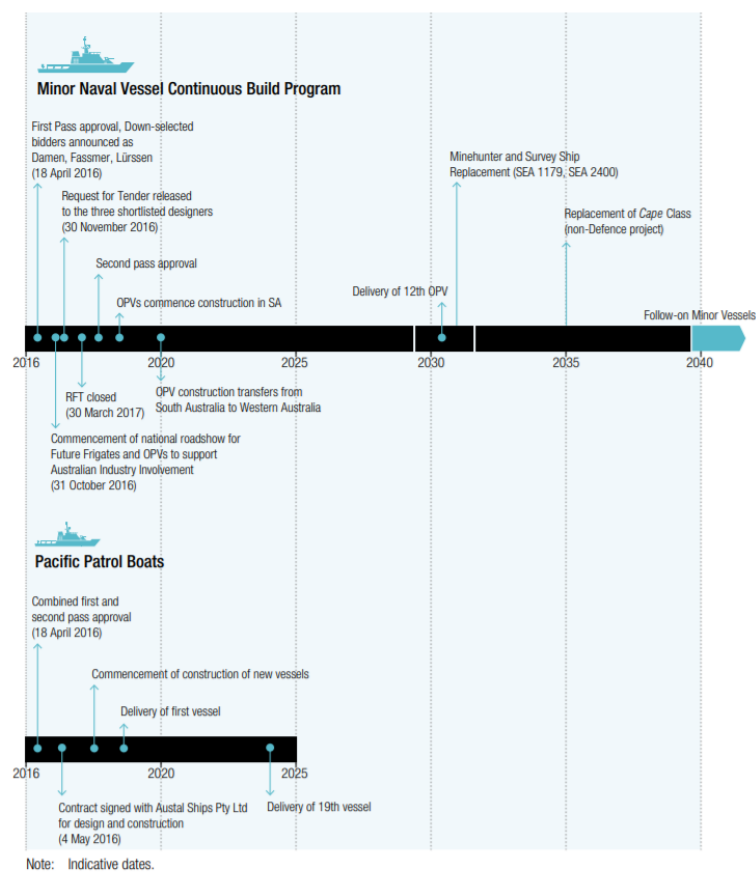
### Major Surface Combatant Continuous Build Program - Future Frigate (SEA 5000)

- In April 2016, the Australian government announced a long-term continuous build program of major surface warships, involving the construction of twelve major surface combatants: nine **Hunter Class Frigates** optimized for anti-submarine warfare, and three **Hobart Class Air Warfare Destroyers**.
- **ASC Shipbuilding** and **BAE Systems Australia** have been awarded the contract to construct the Hunter-class frigates at the Osborne Naval Shipyard in South Australia.
- ASC Shipbuilding is currently engaging potential Australian suppliers through webinars ahead of the prototyping phase due to commence in December 2020.
- This initial phase will extensively test and refine all processes, systems, tools, facilities and workforce competencies before construction of the first frigate begins in 2022.
- All nine future frigates are expected to be delivered before 2040, and will be followed by the construction of the air warfare destroyers which is due to commence in the late 2030s/mid 2040s.



**Minor Naval Vessel Continuous Build Program** - Pacific Patrol Boats (SEA 3036), Offshore Patrol Vessel (SEA 1180) & Minehunter & Survey Ship Replacement (SEA 1179, SEA 2400)

- In the 2016 Defence White Paper, the Australian Government announced the establishment of a continuous build program for minor naval vessels, involving the construction of twelve (12) new **Offshore Patrol Vessels** (OPVs), and twenty-one (21) **Pacific Patrol Boats** that will be donated to twelve South Pacific countries.
- Following a competitive evaluation process, construction of the Arafura Class OPVs commenced at the Osborne Naval Shipyard (Adelaide, South Australia) in November 2018, with the lead vessel, HMAS Arafura, expected to enter service in 2021.
- The vessels will be built by a joint venture between **Luerssen Australia** and **Civmec**, the **Australian Maritime Shipbuilding and Export Group (AMSEG)**.
- In 2016, a contract was also signed with Australian shipbuilder **Austal Ships**, for the delivery of the new **Guardian Class Patrol Boats**.
- Austal delivered the first Pacific Patrol Boat in May 2018, and has constructed and delivered a total of six vessels from their dedicated production facility located in Naval Base (Perth, Western Australia) to date. The final Guardian Class Patrol Boat is expected to be delivered by Austal Ships in 2023.
- Under this program, the Australian Defence Force will also update their capabilities through the construction of minehunting vessels, as well as smaller naval vessels capable of rapid environmental assessment and hydrography activities. Construction of these **Minehunter** and **Survey Ship** replacement vessels is due to commence ~2030.



## 2020 Force Structure Plan



The Australian Government's [2020 Force Structure Plan](#), released on 1 July 2020, outlines a new strategy for Australia's land, air, sea and space defense forces, and the investments required to deliver these new capabilities.

Under the new plan, the government has committed to invest a total of **A\$270bn (~US\$188bn) in land, air, sea and space defense.**

This funding will include an **investment of A\$75 billion (~US\$52bn)** in Australia's maritime capabilities over the next decade, which includes over **A\$50 billion (~US\$34.8bn) towards the regeneration and expansion of the ADF's maritime platforms through the naval shipbuilding enterprise.**

Under the Naval Shipbuilding Plan, that Australian government will **invest up to A\$183 billion (~US\$127bn)** until the 2050s. The 2020 Force Structure Plan will enable the Australian Government to **invest in several additional shipbuilding programs**, including:

Funding Amount	Project Description
<b>A\$4 – 6bn</b> (~US\$2.8 – 4.2bn)	<b>2 new Australian-built multi-role Sea-Lift and Replenishment ships.</b>
<b>A\$3.3bn – 5bn</b> (~US\$2.3 – 3.5bn)	Construction of <b>up to 8 new mine countermeasure and hydrographic survey vessels</b> in Australia.
<b>A\$800m – 1.2bn</b> (~US\$556.5 – 834.7m)	<b>Large Army landing craft.</b>
<b>A\$600 – 800m</b> (~US\$417.4 – 556.5m)	<b>Future Army watercraft.</b>
<b>A\$350m</b> (~US\$243m)	Construction of <b>6 new Cape Class Patrol Boats</b> in Western Australia.
<b>A\$300 – 500m</b> (~US\$208.7 – 347.8m)	<b>Replacements for the Navy landing craft</b> on two <i>Canberra Class</i> vessels.
<b>A\$300 – 500m</b> (~US\$208.7 – 347.8m)	<b>Replacement ADV Ocean Protector Ocean Patrol Vessel.</b>
<b>A\$300 – 500m</b> (~US\$208.7 – 347.8m)	Large <b>Salvage and Repair vessel.</b>
<b>A\$180 – 280m</b> (~US\$125.2 – 194.8m)	Construction of a <b>new vessel to support the Pacific Step-Up.</b>
<b>A\$60 – 90m</b> (~US\$41.7 – 62.6m)	<b>Riverine patrol craft.</b>
<b>A\$30 – 50m</b> (~US\$20.9 – 34.8m)	<b>Replacement <i>Young Endeavour</i> sail training vessel.</b>

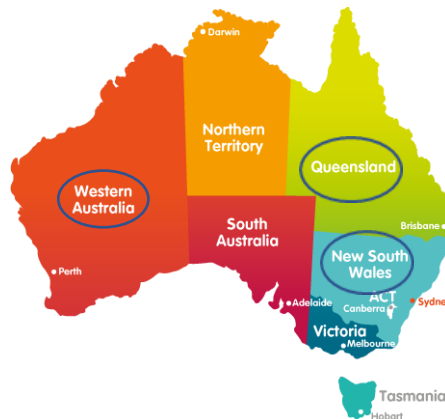
Further, the Australian Government will **invest up to A\$12 billion (~US\$8.3bn)** into developing the **infrastructure** required to support the naval fleet during construction, operation and sustainment

## Commercial & Recreational Shipbuilding - General Overview

- Australia's civil marine manufacturing sector accounts for **approximately one third of the total value of the marine manufacturing sector**, contributing approximately **A\$1.7bn** (~US\$1.2bn) to the Australian economy in 2014-15 (KPMG).
- Per capita, Australia had more cruise passengers in 2018 than any other nation, making it the **4<sup>th</sup> largest cruise market** in the world.
- In 2017, there were **~470 registered businesses** operating in Australia's shipbuilding and MRO sectors (catering to both the commercial/recreational and defense markets), ranging from major shipbuilders to small and medium-sized businesses (Austrade).
- Examples of major players operating within Australia's commercial sector include [Incat](#), [Forgacs](#), [BSC Marine Group](#) & [Strategic Marine](#).



- Close to 80 per cent of Australia's shipbuilders and repairers are located in **Queensland** (32%), **New South Wales** (28%) and **Western Australia** (18%) combined (Austrade).



*Close to 80% of Australia's shipbuilders are located in three Australian states*

- Australia's civil marine manufacturing sector has advanced capabilities in the design, production and maintenance of a variety of vessel types, especially high-speed aluminum ferries and offshore support vessels (OSVs).
- However, **global supply chain integration** is essential to the survival and efficiency of Australia's civil marine manufacturing industry. A large share of intermediate manufactured inputs utilized in Australia's commercial shipbuilding sector are sourced from international suppliers.
- Australia predominantly undertakes shipbuilding construction, repair and maintenance activities using **internationally sourced prefabricated components** (e.g. naval equipment, weapons systems, machinery etc.) that are often shipped to Australia for final assembly.



- Unlike defense shipbuilding which is driven by programs initiated by the Australian Government, industry growth within the commercial and recreational shipbuilding sector is heavily **dependent on market demand for travel and tourism**, which has been impacted significantly in 2020 by the COVID-19 pandemic.

## Recent Developments & Industry Opportunities

While Australia's defense shipbuilding sector is substantially larger than the commercial and recreational shipbuilding sector, we have identified the following areas of opportunity that Virginian companies may wish to pursue:

- Australia's **offshore support vessel (OSV)** industry had grown rapidly in terms of size and vessel range in recent years, with Australian-built OSVs now servicing offshore tasks as far away as the Atlantic Ocean (Austrade). Virginian manufacturers of related inputs for this vessel type may find more opportunities to supply Australian shipbuilders as the industry continues to grow.
- While the maritime industry has traditionally utilized **Autonomous Underwater Vessels (AUVs)** for underwater research and exploration purposes, new advances in automation are allowing AUVs to perform more sophisticated tasks. Globally, the autonomous ship market is anticipated to be worth **A\$19.1bn (~US\$13.4bn) by 2023**, with the highest growth occurring in the **Asia Pacific region**.
- The Australian industry is moving towards the **development and deployment of autonomous container ships and vessels in international waters** in the near future. The [Australian Maritime Safety Authority \(AMSA\)](#) is also investigating the special provisions necessary for the design, registration, certification and operation of AUVs, and how Australia's regulatory framework can be applied to autonomous and unmanned vessels.
- Virginian companies with expertise in AUV technology may wish to engage with potential end customers, partners and/or stakeholders in Australia to explore potential opportunities for future collaboration as the industry continues to develop.
- A large share of intermediate manufactured inputs, in particular metal components and electronic equipment, are sourced from international suppliers. For example, marine engines are typically imported for use in ships and boats manufactured in Australia, with France and the **USA** currently the two largest suppliers in terms of value.
- This indicates that **Australia's commercial shipbuilding industry already has strong, established supply chains with US manufacturers of shipbuilding equipment**, and is therefore encouraging to Virginian companies interested in exporting to Australia.

# MAINTENANCE, REPAIR & OVERHAUL (MRO) & SUSTAINMENT

## General Overview

- The DoD [Capability Acquisition and Sustainment Group](#) (CASG) is responsible for **purchasing and maintaining military equipment and supplies** (incl. naval equipment and supplies) in the quantities and to the service levels that are required by the DoD and approved by the Australian Government.
- In 2018-19, CASG spent over **A\$14.7 billion (~US\$10.1bn)** on the acquisition and sustainment of all military equipment and services.

## Recent Developments & Industry Opportunities

- In October 2018, the DoD published a [Request for Information](#) (RFI), seeking input and consultation from industry players in relation to the department's future **Maritime Sustainment Model (FMSM) Project**.
- The FMSM Project sought to understand whether the model used by the Maritime Systems Division (MSD) of the Capability Acquisition and Sustainment Group (CASG) to sustain naval maritime capability was optimal, and if not, what **alternative models** would be available for unprecedented naval initiatives and capabilities due to the Naval Shipbuilding Plan.
- Further, the DoD was interested to understand the potential **opportunities for innovation** when developing and adopting a new maritime sustainment model.

The FMSM Project led the DoD to launch [Plan Galileo](#) in mid-2020, which aims to achieve **three key objectives by 2025**:

- Build a new approach to **integrated Capability Life Cycle management**;
- Leverage **new technologies and learning** to improve productivity and promote increased levels of innovation, collaboration and knowledge-sharing in the maritime domain; and
- Generate the **skilled workforce** needed to meet upcoming sustainment requirements.



Another core component of the plan is the development of **Regional Maintenance Centres**, which will incentivise industry to build regional and local capacity.

Plan Galileo aims to transform the DoDs maritime sustainment practices through the development of a national, integrated approach to the sustainment of Navy assets that supports the Naval Shipbuilding Plan and aligns with the RAN's other strategies. This will involve:

- Developing robust and highly efficient **national supply chains** capable of delivering the support needed to achieve the required level of readiness and seaworthy capabilities, whilst forecasting future logistics requirements.
- Leveraging opportunities for **international cooperation** by establishing a strong **global supply chain** to support the continuous naval shipbuilding programs and future sustainment requirements.
- Establishing an environment that promotes increased levels of **innovation, collaboration and knowledge-sharing** across the shipbuilding and sustainment community.
- Transforming into a **data-driven organization** by leveraging emerging technologies that deliver strong returns on investment and harness the power of advanced digital and analytical capabilities.
- Developing a **nationally based IT enterprise** that utilises technologies such as **collaboration platforms, digital twin modelling, augmented reality, master data management, artificial intelligence and machine learning** to improve sustainment processes and productivity.
- Involving **industry** in the design of naval sustainment systems from the outset to encourage key companies and the workforce to align their systems to best meet the RAN's needs.

While the initial RFI has now closed, **Virginian companies open to sharing their knowledge and expertise in streamlining national naval sustainment supply chains, workforce training and the integration of new technologies to optimise sustainment productivity and ROI with the DoD would be particularly well received.**

Aside from the ongoing MRO and sustainment requirements associated with the RANs [46 commissioned vessels](#) (as at June 2020), there are several other future vessel sustainment opportunities in the defense sector as a direct result of the Australian Government's naval shipbuilding programs that are currently underway, including:

#### 1. Future Submarine Continuous Build Program

- At present, sustainment activities associated with the current **Collins Class** submarines are undertaken by **ASC Shipbuilding** at the Henderson Maritime Precinct in Western Australia (mid-cycle dockings) and at the Osborne Naval Shipyard in South Australia (full-cycle dockings).



*Future Attack Class Submarines*

- Sustainment of the future **Attack Class** submarine fleet will also be undertaken by a sovereign Australian company, due to the classified nature of the future submarines' technologies and systems.
- The Australian Government is currently seeking advice from the ADF in relation to long-term arrangements for submarine capability management, and therefore the future location of Collins and Attack Class submarine sustainment activities has not yet been finalized.
- Due to the length of the future submarine continuous build program, the Australian Government and the ADF will need to be planning for the follow-on submarine capability before the final future submarine enters service ~2050.
- The process of constructing an Australian industrial base capable of supporting the sustainment of a fleet of twelve regionally superior submarines, especially as submarine and anti-submarine technologies evolve of the coming decades, has already commenced.

## 2. Major Surface Combatant Continuous Build Program

- Sustainment of the **Hobart Class Air Warfare Destroyers** (AWDs) will take place at Garden Island located in Sydney, New South Wales.
- **BAE Systems Australia** has been appointed as the Managing Contractor for the Transition Support Period, while details of a long-term sustainment contract for the fleet are finalized.
- As the AWDs are a new capability for the RAN, an initial sustainment contract of five years will be implemented while the fleet is brought into naval service.
- To ensure that the Hobart Class AWDs keep pace with regional capabilities, the RAN will regularly upgrade the combat system, acquire advanced surface-to-air missiles, and upgrade self-protection systems and unmanned tactical intelligence, surveillance and reconnaissance systems.
- Ensuring interoperability with other current and future platforms and systems will also require continuous enhancements to the AWD's communications and combat systems.
- Sustainment of the **Anzac Class** frigates is currently undertaken by a strategic partnership between **BAE Systems Australia, Saab Australia, Naval Ship Management** and the Australian Government.
- The majority of sustainment work is undertaken at the Henderson Maritime Precinct in Western Australia, with additional work occurring at Garden Island in New South Wales.
- Overall, the Anzac Class sustainment contract is worth over A\$2 billion (~US\$1.4bn) for the eight years from 2016-24, providing increased opportunities for the engagement of small and medium-sized businesses operating in Australia.



*Future Frigates*

- The Anzac Class frigates will be withdrawn from service when the future frigates enter service ~2027/2030. The location for the long-term sustainment of the future frigates will be announced by Australian Government following a competitive evaluation process.

### 3. Minor Naval Vessel Continuous Build Program

- In July 2017, sustainment of the Armidale Class patrol boats was transitioned to **Thales Australia**, representing a potential contract value of over A\$55 million (~US\$38.5m) per year. Sustainment is undertaken at HMAS Cairns and HMAS Coonawarra naval bases, and will continue until the Armidale Class patrol boats are replaced by a new class in the early 2030s.
- **Austal** was also contracted to undertake hull remediation (completed in early 2018) as well as to provide in-service support for two leased Cape Class patrol boats.
- The future OPVs, introduced from 2021 onwards, will **require a new sustainment contract to be established**. It is probable that the majority of deep-level maintenance for the OPVs will occur at the Henderson Maritime Precinct in Western Australia, while lower-level maintenance and support will likely occur in Henderson, Darwin and Cairns where the vessels will be based.
- The Australian Government will also fund deep-level maintenance for the fleet of Pacific Patrol Boats in Cairns, with the contract awarded to **Serco** and their sub-contractor, **Norship Marine**.



*Future OPVs*

**Virginian companies with expertise in this vertical may wish to consider establishing a local subsidiary and workforce in Australia, partnering with a local company through a JV or strategic alliance, or acquiring a local company so that they are able to tender for any future sustainment opportunities published by the DoD.**



## PORT & HARBOR INFRASTRUCTURE

### General Overview

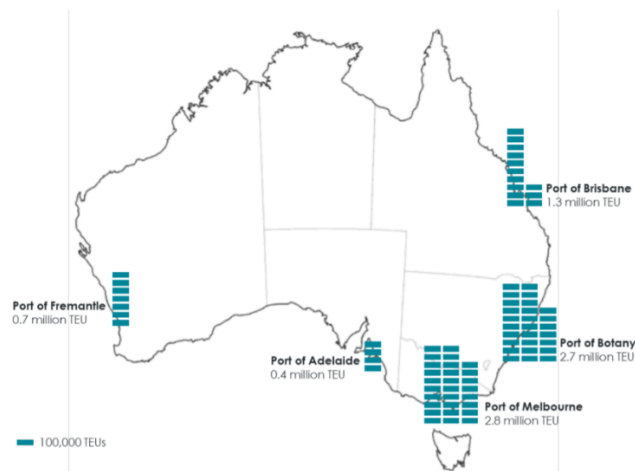
- As an island nation, Australia conducts ~98% of its trade through ports which are a central part of the nation's supply chain. According to the key industry body [Ports Australia](#), every day **A\$1.2 billion (~US\$0.8bn) of trade** moves through Australian Ports. They also handle over **8 million containers** every year.

### Australia's Current Port Infrastructure

- Australia currently has **five (5) main container ports** that provide the gateway for imports of manufactured merchandise into Australia and the export of several types of agricultural and manufactured merchandise.



- Other significant ports include the [Port of Newcastle](#) (New South Wales) and the [Port of Darwin](#) (Northern Territory).



Main Australian ports and their TEU throughput in 2017

The **key container terminal operators** for Australian ports include:

- [DP World Australia \(DPWA\)](#);
- [Patrick Terminals](#);
- [Hutchison Ports](#); and
- [ICTSI](#) (International Container Terminal Services).

## Recent Developments & Industry Opportunities

There are several potential opportunities for Virginian companies related to increasing the capacity and efficiency of Australia's ports through the use of **new technologies such as automation**.

Recent developments within the sector align with the following two key strategies:

- The [National Freight and Supply Chain Strategy and National Action Plan](#) (released in August 2019), which set an agenda for integrated national action over the next 20 years and beyond. Developed by all Australian governments with extensive input from industry, the Strategy commits to national action in **4 critical areas**:
  - **Smarter and targeted infrastructure;**
  - Enable improved supply chain efficiency;
  - Better planning, coordination and regulation; and
  - Better freight location and performance data.
- The [National Ports Strategy](#) (NPS) was developed in 2011 by Ports Australia, and an updated [three-pronged policy platform](#) focused on the following areas for improvement was also released in 2019:
  - [Building Maritime Skills](#),
  - [Australia's Blue Highway](#) and
  - [Improving Lives Through Connected Ports](#).

### Technological Advancement of Cargo Ports

- In 2017, the Victorian International Container Terminal (VICT) in the Port of Melbourne, operated by ICTSI, became **the first fully automated facility of its kind** in Australia setting a new benchmark for engineering excellence. VICT was also the only terminal in Australia to feature **remotely operated quay cranes** as well as **driverless automated container carriers (ACC)**, provided by Finnish company [Kalmar](#).

**International suppliers** of the automated terminal included:

- Bright Light Systems, part of [Phoenix Lighting](#) (US) - the LEPs;
- [Kalmar](#) (Finland) - driverless automated container carriers (ACC);
- [Dimension Data](#) (South Africa) - network and systems infrastructure;
- [Camco](#) (Belgium) - gate operating system and optical recognition;
- [ABB](#) (Switzerland) - QC operations and automation.

## 'Smart Ports' in Australia

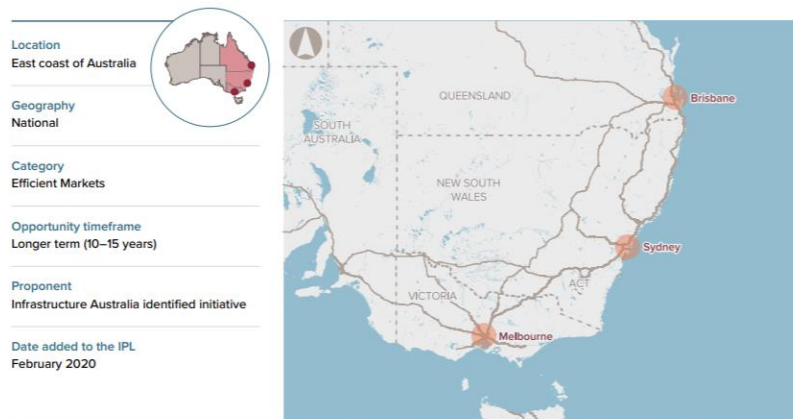
- [The Smart Ports 2019 Summit](#), which took place in Melbourne from 29 - 31 October, explored the ways ports and terminals across Australia can **enhance operational efficiencies**. Under the wider theme of **'Improving Your Supply Chain through New Digital and Automation Strategies'**, the event focused on the following three main themes:



- Australia's ports are **increasingly shifting to automated systems**. In 2017, the first **'OneTerminal' integrated automation solution** to International Container Terminal Services Incorporated (ICTSI) was [delivered](#) at the Port of Melbourne. The system has enabled the Victoria International Container Terminal (VICT) to become **the world's first fully automated international container handling facility**.

## Deepwater Ports - Australian Infrastructure Priority

- Australia lags behind the rest of the world in being able to efficiently handle modern, large container ships, and this is a growing problem for Australia's economy and global competitiveness. Analysis released in January 2019 by [HoustonKemp](#) economists identified concerns about accommodating ships of this size in Australia.
- [Infrastructure Australia](#) has published its [Priority List for 2020](#) of nationally significant investments, which includes the **development of deepwater container port facilities along the east coast of Australia**.



Source: [Infrastructure Priority List](#), February 2020

- [Infrastructure Australia](#) has also flagged the need to examine the option of developing *“a container port facility that can accommodate the largest ships as a transshipment port for other destinations within Australia”*.
- The following **port projects** may also provide additional opportunities to Virginian exporters:

### Melbourne Container Terminal Capacity and Land Transport Access

**Proposed By:** Victorian Government

**Location:** Melbourne, Victoria

**Timeframe:** Longer-term (10-15 years)

**Description:** Container traffic at the Port of Melbourne is expected to grow by 2.6% each year, from 2.9 million Twenty-Foot Equivalent Units (TEUs) in 2018 to around 9 million in 2050. The development of additional container terminal capacity in Melbourne – with dedicated connections to the port, proposed metropolitan terminals, regional hubs and the national rail system – will help to alleviate congestion caused by road freight movements. This initiative includes optimising the capacity of existing ports, as well as longer-term planning and potential site preservation for future facilities. A new Port Development Strategy for the Port of Melbourne is currently under development.



### Perth Container Terminal Capacity and Land Transport Access

**Proposed By:** Western Australian Government

**Location:** Perth, Western Australia

**Timeframe:** Longer-term (10-15 years)

**Description:** Fremantle Port Inner Harbour handles most of Western Australia's container trade. Throughput at the current container terminal at Fremantle Port will be limited by urban development that constrains the road and rail connections into the port. In 2017–18, the port handled approximately 750,000 containers. This trade is expected to grow on average by 2.8% each year between 2017–18 and 2067–68. This growth could result in the current facility reaching capacity in around 15 years. The initiative includes planning, and potential corridor and site preservation, for additional container terminal capacity, and road and rail access, to accommodate future demand in Perth. In the near to medium term, there may also be an opportunity to help support growing demand with smaller scale port and transport access investments.



## OFFSHORE OIL & GAS

### General Overview

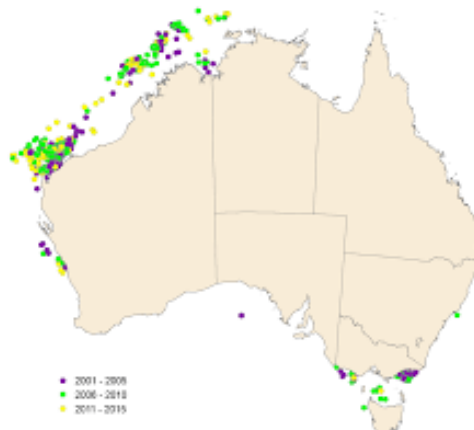
- Australia’s oil & gas industry has enjoyed a **globally significant investment boom over the last decade**, with a total of **A\$473bn (US\$310 billion)** invested into the industry over the past ten years.
- This growth has been headlined by a **A\$305 billion (US\$200bn)** wave of liquefied natural gas (LNG) megaprojects, which has set Australia on course to become the world’s major LNG exporter.
- Several **large upstream investments** are on the horizon, including LNG backfill opportunities at Darwin and North West Shelf LNG, expansion of Pluto LNG and the associated upstream development at Scarborough.
- While COVID-19 has seen projects delayed in the face of challenging market conditions, the oil and gas industry had over **A\$88 billion (~US\$61.5bn) worth of projects (onshore & offshore combined) in the pipeline as at October 2019** ([APPEA](#), June 2020).

#### LNG, gas, oil major projects investment pipeline (October 2019)

	2018		2019	
	No. of projects	Range \$ billion	No. of projects	Range \$ billion
Publicly announced	12	28.1+	13	29.4+
Feasibility stage	15	36.0+	19	44.8+
Committed	13	10.9	6	14.3
Completed	7	103.5	5	3.6

SOURCE: DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY AND RESOURCES. (The Department has revised project estimates. The new limit for projects in cost estimate is A\$5 billion plus. This has meant a significant downward revision to 2017 numbers and a reduction of total investment pipeline value.)

- In total, there have been **~3,800 offshore wells** drilled in Australian waters over the past 40 years, with approximately **90 new offshore wells drilled each year** ([Energy Information Australia](#)).
- As demonstrated in the following map, the majority of Australia’s offshore oil and gas extraction activities are concentrated in the **North-west** and **South-east marine regions** ([Department of Environment & Energy](#), 2016), with some activity also occurring in the **South-west** region.





- Offshore activity comprises the Arafura Basin, Bonaparte Basin, Browse Basin, Canning Basin, Carnarvon Basin etc. in the **North-west**, the Mentelle Basin, Naturalist Plateau, Perth Basin & Wallaby Plateau in the **south-west**, and the Bight Basin, Gippsland Basin, Otway Basin & Sorrel Basin etc. in the **South-east**.
- The **key players** in Australia's oil & gas extraction industry in Australia include:
  - **BHP Group**: Operates offshore oil fields and gas operating facilities in Western Australia and Victoria, with offshore interests in the Bass Strait and North West Shelf.
  - **Chevron Australia**: Operates the Gorgon LNG Project, has a minor stake in the North West Shelf Venture, as well as the largest portfolio of offshore exploration acreage in the Carnarvon Basin off North-west Australia.
  - **ExxonMobil Australia**: Primary offshore installation in Bass Strait (South-east Australia) features 19 platforms and 4 subsea facilities.
  - **Santos**: Australian oil and gas exploration and production is focused on the Northern Territory, which includes the Bayu-Undan facility, Barossa, Petrel, Tern & Frigate gas fields and the McArthur Basin. Santos also produces gas from the offshore John Brookes, Harriet, Spar-Halyard and Reindeer fields off Western Australia.
  - **Shell Energy Australia**: Operates the Prelude, Crux, Bratwurst & Factory FLNG offshore projects in the North-west region, and has interests in the Browse, North West Shelf, Gorgon & Outer Exmouth offshore projects.
  - **Woodside Petroleum**: Operates the North West Shelf LNG project, and has interests in the Wheatstone Project. In April 2020, Woodside also received approval for the Scarborough and Pluto Train 2 LNG projects located in Western Australia's Carnarvon Basin.
- Several of these key players have committed to **long-term (10+ years) LNG supply agreements**, spurred by high demand from Asia, and will therefore need to continue to invest in equipment and services in order to fulfill these contracts.

## Recent Developments & Industry Opportunities

Over 80 per cent of Australia's gas resources exist in offshore areas. Developing the full potential of these remote resources relies on advances in **exploration, infrastructure, project development, transportation and maintenance**.

As such, we have identified three **key areas of opportunities** for Virginian exporters in Australia's offshore oil and gas sector:

EXPLORATION

VESSELS &  
SERVICES

NEW  
TECHNOLOGIES

## Exploration

- In June 2020, the Federal government [announced](#) an additional **A\$125 million (~US\$87.4m)** of funding to expand the [Exploring for The Future \(EFTF\) program](#) aimed at stimulating **future onshore and offshore oil & gas and resources exploration across Australia**.
- The first phase of the program, managed by [Geoscience Australia](#), commenced in 2016 and focused on northern Australia, and so the additional funding will allow the program to be extended for another four years and for its national reach to be expanded.
- The presence of major oil and gas projects in Australia and how these projects successfully transition from the investment to the production stage is also dependent on a successful **maritime industry**.

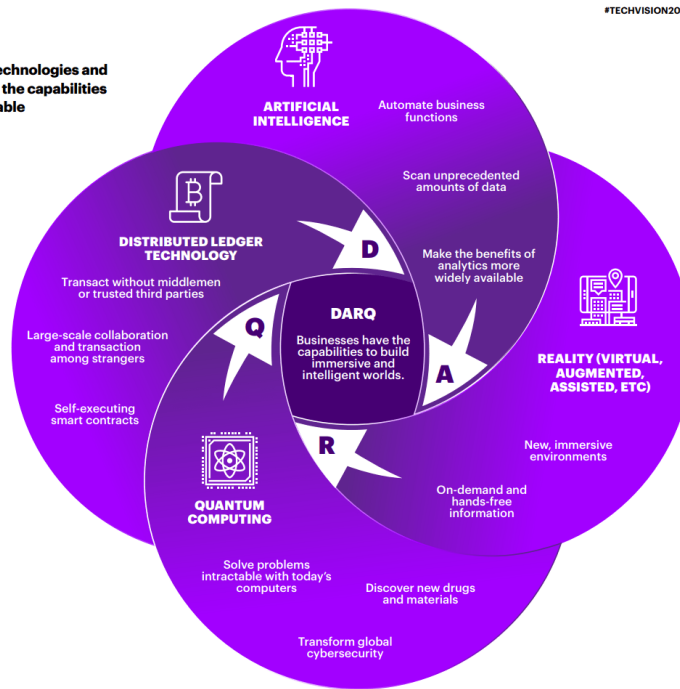
## Specialized Vessels & Services

- The oil and gas sector draws significant capital and human resources from the maritime industry in its day-to-day operations. Examples of **vessel activities and services** that major players operating in the oil and gas sector will continue to require in the future include:
  - **Supply and support to offshore installations;**
  - **Anchor handling of offshore facilities;**
  - **Seismic exploration;**
  - **Construction supply and support;** and
  - **Floating production, storage and offtake (FPSO).**
- There may also be opportunities for Virginian exporters with expertise in the design and manufacture of next-generation, low-emission **platform support vessels** (PSVs), **anchor-handlers** (AHTSs), **emergency rescue recovery vessels** (ERRVs), **diving support/construction vessels**, and **survey vessels** required for oil and gas industry operations.

## New Technologies

- According to Accenture's 2019 Tech Vision, '**DARQ**' technologies (comprising **distributed ledger technology (DLT) / blockchain, artificial intelligence / machine learning, extended reality and quantum computing**) is key to the next wave of innovation and therefore presents substantial opportunities for Virginian exporters with expertise in developing and deploying these technologies ([Oil & Gas Australia](#)).
- ~82% of oil and gas companies surveyed by Accenture believe that these technologies are **critical to the future of their organizations**, with several Australian oil and gas companies currently undertaking **trials and proof of concepts on new technologies**, with the intention to deploy them at scale in the future.

DARQ technologies and some of the capabilities they enable



Source: [Accenture](#)

- Australian oil and gas companies are also beginning to experiment using **Extended Reality (XR)** to interact with others on offshore platforms to overcome common maintenance, operational and efficiency challenges and also improve safety within the industry.
- As a result, demand for XR technologies such as **virtual reality simulators, wearables** and **holographic projections** is expected to grow over the next few years.
- **Blockchain technologies** also have the potential to allow for better integration, assisting companies to improve the efficiency and interconnectedness of their operations. Specifically, blockchain technologies can assist the Australian oil and gas industry **navigate volatile oil prices, changing energy portfolios and sustained bottom-line pressures.**
- However, due to the growing dependence on technologies and digital systems, oil and gas infrastructure is now more vulnerable to cybercrime. As such, **investment into cyber resilience tactics is expected to increase by over 30%** over the next two years.
- Virginian companies with expertise in oil and gas vessel activities and operations, the supply of specialized vessels and/or 'DARQ' technologies, should consider pursuing opportunities to supply to major operators in Australia due to the **long-term opportunities** the oil and gas industry presents.

As all key players/potential end customers operating within the sector are private companies, we recommend that Virginian exporters utilise a **procurement portal** such as the [ICN Gateway](#) business network, to search upcoming projects in the sector, as well as registering online as potential suppliers with each company individually.

## WORKFORCE TRAINING

### General Overview

- Australia's maritime industry is an intrinsic part of the nation's economy, employing **~18,300 people** in 2019.
- **New South Wales, Queensland, Victoria** and **Western Australia** employ the largest maritime workforces in Australia, respectively.
- **A key challenge** currently facing Australia's maritime industry is shortages of skilled employees due to an **ageing workforce, access to training**, as well as **geographic** and **financial** constraints.
- A survey of maritime industry employers conducted by the Australian Industry Standards (AIS) Industry Reference Committee (IRC) survey from September 2018 – January 2019 indicated that over 78 per cent had experienced a **skills shortage** in the previous 12 months.
- Current maritime skill shortage areas in Australia include **small vessel masters, engineers, marine engine drivers, deckhands** and **navigation**.
- According to the AIS IRC survey, **priority skill areas** for Australia's maritime industry over the next 3 – 5 years are **health/safety, operational, navigation/vessel handling, digital literacy** and **risk management**.
- Another major factor affecting Australia's maritime training industry is the impact of **technological change and emerging technologies** on the workforce.

### Recent Developments & Industry Opportunities

#### Investment into Training Programs & Facilities

The DoD and ADF have invested significantly into the **development and execution of maritime training programs**. For example:

- In 2018-19, the ADF invested A\$897 million (~US\$537 million) into **simulation technologies** to develop **realistic future training environments**.
- Under the Defence Cooperation Program budget for 2019-20, Defence will invest a further A\$4.6 million (~US\$2.8 million) in the **Defence International Training Centre (DITC)**, which enhances international engagement by providing training to South-East Asian and South Pacific defence forces in Australia.



*RAN Electronic Warfare Simulation*

There is also evidence of increased investment into **upgrading and expanding training facilities across Australia**. Recent examples include:

- **HMAS Cerberus Redevelopment Project** – A\$465.6 million (~US\$279 million) upgrade to training, support and accommodation facilities. Phase 1 of the project is underway and expected to be completed by mid-2020, with Phase 2 running from mid-2022 to mid-2025.
- **SEA 1180 Phase 1 Offshore Patrol Vessels (OPV) Batch 1** – Berthing, Training, Maintenance, Logistics and Support facilities at HMAS Stirling, HMAS Coonawarra & HMAS Cairns to support the introduction into service of 12 new OPVs.
- Construction of **training facilities at HMAS Harman** (Canberra), which are due to commence in mid-2020 and be completed by mid-2022.
- In February 2020, [HR Wallingford](#) added **two new purpose-built simulators** to its ship simulation center in Fremantle, Western Australia, making it one of the largest simulation centers in Australia and allowing for integrated and immersive full port training scenarios ([source](#)).

### Shipbuilding Training

- Under the [Naval Shipbuilding Plan](#), the Australian Government has committed to investing up to **A\$62 million** (~US\$42.5m) towards workforce growth and skilling initiatives to **enable the delivery of new fleet naval ships and submarines**, as well as the construction of modern shipyard infrastructure.
- Developing a highly capable, productive and skilled naval shipbuilding and sustainment workforce is one of the **key enablers** assisting the successful delivery of a national naval shipbuilding enterprise.
- Prior to 2017 when the Naval Shipbuilding Plan was established, workforce numbers were in decline for over five years, and critical skills were lost as experienced workers left the industry.
- It is forecasted that by 2026, **over 15,000 personnel will be either directly or indirectly involved** in construction, sustainment and supply chain activities, or be employed by related institutions and industries required to support the delivery of the plan.
- As a result, the Government is continually working on attracting, recruiting and retaining the required workforce numbers, as well as **educating and training the workforce** in the skills and experience required to deliver the high-tech, advanced capabilities demanded by the shipbuilding enterprise.



*Naval Shipbuilding Activities*



## Naval Shipbuilding College (NSC)



- The Naval Shipbuilding College (NSC) is an Australian Government initiative that is **managed on behalf of the government by the Naval Shipbuilding Institute (NSI)**, a joint venture between [Huntington Ingalls Industries](#) (HII) (global HQ in **Newport News, Virginia**) and [Kellogg Brown and Root](#) (KBR) (global HQ in Houston, Texas).



- Headquartered in Osborne, South Australia, the NSC commenced operations in April 2018. Its purpose is to **ensure that a suitably skilled and qualified sovereign workforce is available to meet the future needs of shipbuilders operating in Australia.**
- Australia's defense industry is currently experiencing **unprecedented growth**, with **tens of thousands of skilled and professional jobs needed** to deliver Australia's first continuous Naval Shipbuilding Program.
- The college's initial focus is to establish **industry workforce requirements, build capacity and increase annual attendance at education and training facilities around Australia.**
- Over the longer term, the NSC will **continue to expand educational and work placement pathways** to meet increased workforce demand, **partnering with education and training providers to grow Australia's naval shipbuilding workforce and develop new training courses.**
- The NSC is also **consulting Australia's shipbuilding and sustainment industries** to understand their requirements, develop appropriate training standards, and connect industry with suitably skilled candidates.
- By selecting two US-headquartered companies (who both operate Australian offices) to manage the NSC and deliver the college's objectives, it is clear that the Australian Government is **open to learning from multi-national companies such as KBR and HII that are recognized as global leaders in their fields.** This also reinforces that **international expertise is required to support different facets of the Naval Shipbuilding Plan** such as workforce training requirements and shipbuilding skills in particular.

## Emerging Technologies

Australia's maritime industry is being increasingly impacted by the advent of new technologies which have the potential to improve **security, safety and operational efficiency** within the sector. To benefit from the integration of these new technologies, the workforce will require improved training in **digital skills, data analytics and cybersecurity.**

Examples of in-demand, emerging technologies within Australia’s maritime industry include ([AIS Skills Forecast](#)):

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• <b>Robotics &amp; Automation</b>	• <b>Virtual Reality (VR)</b>
• <b>Interconnected Sensors &amp; Big Data</b>	• <b>Satellite-Based Augmentation Systems</b>
• <b>Remote Propulsion &amp; Powering</b>	• <b>Dynamic Positioning (DP) Systems</b>
• <b>Digitalization of on-board systems</b>	• <b>Remotely Piloted Aircraft Systems (RPAS) (i.e. drones)</b>
• <b>Ship Control Software Systems</b>	• <b>Autonomous Vessels</b>
• <b>E-navigation systems</b>	• <b>Satellite-Based Augmentation System (SBAS)</b>

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While these emerging technologies are expected to have a significant impact on the maritime industry, they will also require **new skills, competencies, ongoing learning, and development in future training initiatives.**

### Cyber Security Training

- The maritime industry is **highly exposed to cyberattacks**. The growing pace of new innovations and technologies is contributing to this exposure, and Australia has been identified as receiving the highest volume of cyberattacks in comparison to any other nation within the Asia Pacific region ([Cisco](#)).
- With **over 50,000 ships at sea or port** in Australia at the same time, potential disruptions caused by cyberattacks such as sensitive data breaches or compromised systems can have severe repercussions on vessels, personnel and cargo.
- The **unique nature of the maritime industry**, involving linkages between onboard and terrestrial systems, communication and data transfers between land-based infrastructures and vessels, and a range of different vessels with different computer systems, contributes to this heightened risk. Further, the emergence and increasing prevalence of new **technologies** (e.g. automation, AI, big data) can also expose the industry to additional cyber security risks.
- As a result, AIS recommends that the Australian maritime industry develop a **tailored cyber security training program** that effectively informs both the executive and operational workforce of the nature of marine industry cyber-attacks, and also teaches the skills and competencies needed to resolve them.
- In turn, Australian companies need to invest in skills and capabilities through educational programs in order to implement effective cyber risk management and compliance strategies, and deploy the right technologies to identify, block, remediate or protect against cyber-attacks.

# MARKET ENTRY STRATEGY

## RECOMMENDATIONS

Virginian companies interested in exploring opportunities in Australia's maritime sector are encouraged to undertake the following key steps:

- **Understand the market and customer demand;**
- **Select the most suitable partner and / or establish an office / local presence;**  
and
- **Provide ongoing support in the market.**

### Understanding Market & Customer Demand

In order to gain a deeper understanding of demand in the Australian maritime industry for a specific product or service, Virginian companies are encouraged to:

- Engage with key **industry associations** and subscribe to **industry publications** to stay up to date on recent developments and current issues (see following section for details).
- Participate in an in-person or virtual **market visit** in order to gather additional market intelligence and 'meet' with prospective partners. This visit or virtual meeting program could be undertaken individually, or as part of a future group trade mission aligned with a major industry event, e.g. Indo-Pacific International Maritime Exposition due to be held in May 2022.

### Establishing a Presence in the Australian Market

Virginian companies wishing to establish a presence in the Australian market following an initial in-person or virtual market visit are encouraged to explore the following potential options, which include appointing a local distributor / partner, setting up a local office, acquiring a local company, or setting up a foreign joint venture/strategic alliance.

- **Setting up a local office or branch** offers customers a reassurance of your company's commitment to the local market, as well as more control of the business operations and marketing. Some drawbacks include higher risk and set up capital, initial lack of business contacts, and lack of established reputation in Australia.
- **Appointing a local distributor / integration partner** offering similar or complementary products offers the benefits of lower initial investment, established local contacts and a faster time frame for market entry. Some drawbacks include trust issues (regarding liability), lack of control of business operations and possible performance issues if no sales milestones are set in place.
- **Acquiring a local company** which may speed up the process of accessing and penetrate the market as the company would have an existing distribution network in place. The drawback would be a **large capital investment**, and possible slower post-merger integration.

- **Setting up a Foreign Joint Venture / Strategic Alliance** with a local Australian company. The advantage would be possible faster market entry. However, potential risks could be differing on goals and objectives and also lack of total control of management.

The decision of which market entry route to undertake will ultimately come down to the short, medium and long-term business objectives of the specific company.

Our general recommendation for Virginian companies interested in bidding on tenders within the defense maritime sector would be to **acquire a local company, set up a JV / Strategic Alliance with an Australian company, or set up a local office or branch in Australia.**

Maximizing Australian and local industry participation across high-value defense procurement contracts is an important aspect of the DoD's industry participation policy.

Therefore, Virginian companies demonstrate a commitment to growing Australian capability and the local workforce will be well received and have a higher chance of success of winning contracts with the DoD.

## Supplying to Public & Private Sectors

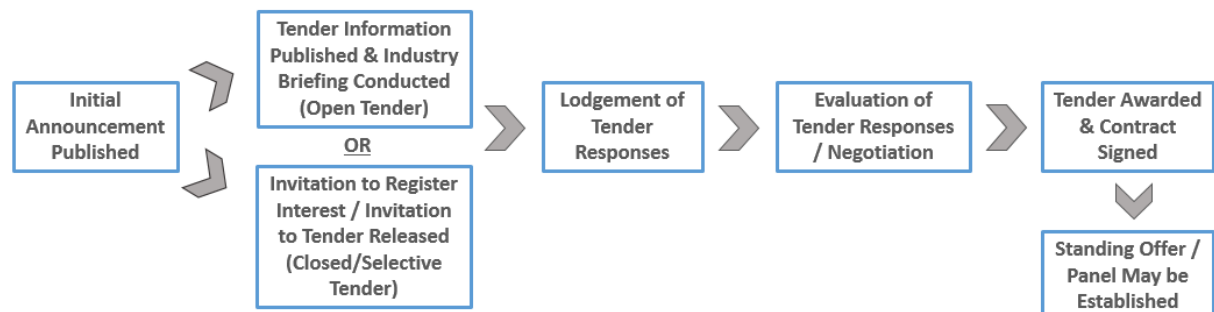
The procurement process may vary considerably within different verticals, as well as between the private and public sectors.

For the majority of industry verticals covered in this report, Virginian exporters will have the potential to supply to the Australian federal government and/or state/territory governments, as well as private sector companies.

The '[Selling to Government](#)' guide published by the Department of Finance provides potential suppliers with all relevant information related to the bidding process, covering:

- **Identifying Opportunities** to Sell to Government;
- **Responding to an Approach to Market (ATM)**; and
- **Government Procurement Rules & Processes.**

The **typical bidding process for government contracts** is as follows:



An EOI / RFI / ROI may be published by the relevant Government department on AusTender to gather intelligence

Request For Tender (RFT) / Request For Quotation (RFQ) is published on AusTender (Open Tender), or an Invitation to Tender (ITT) / Invitation to Register Interest (IRI) is released. An industry briefing may also be conducted by the relevant government department & any changes or additional information will be communicated via

Tender responses are lodged by industry before the deadline.

Tender responses are evaluated according to the criteria & clarification may be requested from tenderers if required. The government may also enter into post-offer negotiations with a preferred / short listed tenderer/s.

Tender awarded & agreement with successful tenderer is formalised in an official contract. Unsuccessful tenderers can also request a debriefing on their tender response once the process has been finalised. A Standing Offer/ Panel may also be established.

Virginian companies interested in supplying to the Australian federal government and/or state/territory governments are encouraged to subscribe to [AusTender](#), the Australian government online tendering platform, to receive up to date information on current business opportunities, annual procurement plans, multi-use lists and contracts relevant to the maritime industry.

Virginian exporters are also encouraged to register to receive email notifications from the following state/territory procurement websites:

- Australian Capital Territory (ACT): [Tenders ACT](#)
- New South Wales (NSW): [NSW eTendering](#)
- Northern Territory (NT): [NT Quotations and Tenders Online](#)
- Queensland (QLD): [QLD QTenders](#)
- South Australia (SA): [SA Tenders and Contracts](#)
- Tasmania (TAS): [Tasmanian Government Tenders](#)
- Victoria (VIC): [Buying For Victoria](#)
- Western Australia (WA): [Tenders WA](#)

Companies interested in supplying to the **private sector** are encouraged to conduct research to identify potential strategic partners, as well as companies that may represent potential end customers.

The majority of large private organizations have their own procurement/sourcing department that manages the tendering process, and therefore we encourage Virginian exporters to regularly engage with potential ideal end customers in Australia to ensure they are aware of any upcoming opportunities for collaboration.

## Examples of Recent Public Sector Tenders

- [Osborne Naval Shipbuilding Precinct Infrastructure Development](#)
  - **Project Owner:** Laing O'Rourke Australia Construction Pty Ltd
  - **Location:** South Australia
  - **Value:** Not specified
  - **Timeline:** 2019 - 2026
  - **Description:** Construction of build, test and integration facilities (BTIFI) needed to design, produce and accept into serve the fleet of future submarines (FSM). Laing O'Rourke was awarded Managing Contractor and is now requesting Registrations of Interest (ROI) from subcontractors interested in participating in the project.
- [Pacific Maritime Training Services](#)
  - **Project Owner:** Department of Defense Capability Acquisition & Sustainment Group (CASG)
  - **Location:** All States & Territories
  - **Value:** Not specified
  - **Timeline:** 2021 - 2026
  - **Description:** Contract to provide maritime technical, seamanship, communications and management courses in support of the Guardian Patrol Boat (GPB) program. Training courses will cover technical and non-technical courses to different ranks.



- **Defense Marine Support Services Program** (DMSSP)
  - **Project Owner:** Department of Defense Capability Acquisition & Sustainment Group (CASG)
  - **Location:** All States & Territories
  - **Value:** Not specified
  - **Timeline:** 2020 - 2026
  - **Description:** Open approach to market for the provision of three service packages – In Port Services (INPT), Out of Port Services (OOP), and Towing Services for naval vessels.

# INDUSTRY ASSOCIATIONS

## Australian Commercial Marine Group (ACMG)

[www.commercialmarine.com.au](http://www.commercialmarine.com.au)



The ACMG is a leading industry association aimed at supporting, developing and promoting the Australian commercial and defense maritime industry, both in Australia and internationally.

The association supports its members by promoting Australia's commercial marine operations, shipbuilding and ship repair capabilities, infrastructure and services, as well as manufacturers of associated marine equipment to facilitate industry growth.

The ACMG, affiliated with [Australian International Marine Export Group](#) (AIMEX) and [Superyacht Australia](#), also provides members with industry information and marketing support, including representation at national and international commercial and defense maritime exhibitions.

## Australian Shipbuilding and Repair Group (ASRG)

[www.asrg.asn.au](http://www.asrg.asn.au)



The ASRG is an industry body focused on representing and promoting the capabilities of Australia's shipbuilding and repair industry sectors as well as the wider marine community to domestic and international markets.

The group promotes member companies' capabilities through national agencies such as Austrade, provides professional services to members, and publishes information on opportunities for member companies.

The ASRG also coordinates training courses for the Australian marine industry, and is affiliated with relevant industry professional bodies and Government agencies.

## Australian Petroleum Production & Exploration Association (APPEA)

[www.appea.com.au](http://www.appea.com.au)



Established in 1959, APPEA is the peak national body representing the collective interests of Australia's upstream oil and gas exploration and production industry.

The association has over 60 member companies that are involved in the exploration and production of Australia's oil and gas resources, who together account for approximately 98% of Australia's petroleum production. APPEA also represents over 150 associate member companies that provide a range of goods and services to the industry.

The association actively assists its members by working with federal, state and territory governments to ensure that Australia's regulatory and commercial framework promotes investment and maximizes the value of Australia's oil and gas resources.

## Maritime Industry Australia Limited (MIAL)

[www.mial.com.au](http://www.mial.com.au)



MIAL is an industry and employer association that represents the collective interests of maritime businesses, primarily those operating maritime assets or facilities, in Australia.

The association provides dedicated maritime expertise, advice and resources to members in order to promote a sustainable, vibrant and competitive Australian maritime industry and to expand the maritime cluster.

## Ports Australia

[www.portsaustralia.com.au](http://www.portsaustralia.com.au)



Ports Australia is the national peak body representing government and privately owned ports.

Formed in 1916, Ports Australia has provided advocacy, coordination and leadership for over 100 years to sustain the port communities while fostering economic, innovative and sustainable growth.

Members include port authorities, corporations and the DoD, in addition to various support service companies to the Port sector.

# INDUSTRY PUBLICATIONS

## Australian Defence Magazine (ADM)

[www.australiandefence.com.au](http://www.australiandefence.com.au)



**Managing Editor:** Katherine Ziesing

**Tel:** +61 2 6203 9535

**Email:** [katerhineziesing@yaffa.com.au](mailto:katerhineziesing@yaffa.com.au)

ADM is dedicated to reporting the business of defense capability planning and procurement, as well as reporting on the development of new infrastructure to support the Australian Defense Force (ADF).

ADM provides an essential communications bridge between defense industry and the Australian DoD, reporting on the budgetary, policy development, capability planning and procurement processes which lead to the provision of equipment and resources for the ADF.

## Defence Connect

[www.defenceconnect.com.au](http://www.defenceconnect.com.au)



**Editor:** Stephen Kuper

**Tel:** +61 2 9922 3300

**Email:** [stephen.kuper@momentummedia.com.au](mailto:stephen.kuper@momentummedia.com.au)

Defence Connect is an integrated online platform that connects industry with opportunities in the defense sector. The platform connects businesses, agencies, departments and institutions involved in defense procurement and delivery defense capabilities, supporting industry engagement across several channels, including podcasts, social media, and e-newsletters.

The platform is published by Momentum Media, who have also created an associated awards program – the Australian Defense Industry Awards.

## Oil & Gas Australia

[www.oilandgasaustralia.com.au](http://www.oilandgasaustralia.com.au)



**Tel:** +61 8 9443 3400

**Email:** [enquiries@energy-pubs.com.au](mailto:enquiries@energy-pubs.com.au)

Published continuously since 1981, Oil & Gas Australia claims to be Australia's leading journal for the oil and gas sector, covering new developments, technologies and products within the Australian and international petroleum sectors for over three decades.

In that time, the magazine has been recognized by leading global petroleum companies, industry and government bodies as a reference tool on oil and gas activity in the southern hemisphere, and the magazine has been asked to produce special publications for major players within the industry, as well as a number of international and Australian government bodies.

# INDUSTRY EVENTS

## SHIPBUILDING & DEFENCE

### INDO PACIFIC International Maritime Exposition

[www.indopacificexpo.com.au](http://www.indopacificexpo.com.au)



**Dates:** 1 - 2 May 2022

**Location:** International Convention Centre, Darling Harbour (Sydney, New South Wales)

From 2022 onwards, the biennial *Pacific International Maritime Exposition* will become the **INDO PACIFIC International Maritime Exposition**, to reflect the Indian Ocean's increasing importance in Australia's regional stance.

In 2019, the event combined an extensive exhibition, featuring 600+ exhibitors from ~22 different nations, in addition to a comprehensive conference program and a schedule of networking and promotional opportunities.

With over 21,000 attendees over the two days in 2019, the event connects customers and industry, allowing commercial maritime and naval defense suppliers to promote their capabilities to decision-makers from around the world.

INDO PACIFIC is strongly supported by the RAN, Sydney Harbour Foreshore Authority, the Capability Acquisition and Sustainment Group (CASG), Defense Science and Technology, the Department of Industry, Innovation and Science, the Department of Infrastructure, Regional Development and Cities and the Government of the State of New South Wales.

### Sydney International Boat Show

[www.sydneyboatshow.com.au](http://www.sydneyboatshow.com.au)



**Dates:** 29 July - 2 August 2021

**Location:** Darling Harbour, Sydney, New South Wales

Hosted by the [Boating Industry Association](#) (BIA), the Sydney International Boat Show is an annual event that claims to be the largest recreational marine event in the southern hemisphere.

With over 220 exhibitors and over 145 boats on the purpose-built marina located in Darling Harbour in 2019, the event features several exhibition stages across three levels.



## PORT & HARBOUR INFRASTRUCTURE

### Ports Australia Biennial Conference

[www.portsaustralia.com.au/resources/conference/biennial](http://www.portsaustralia.com.au/resources/conference/biennial)



**Dates:** TBC (2021)

**Location:** TBC

Originally planned for September 2020, the event has been postponed to 2021 (date TBC).

Ports Australia biennial conference is a national maritime event that brings together leaders from across the Ports, maritime services, business and political spectrum.

This conference is held in a port city over three days, and features a port tour, presentations, a networking lunch and gala dinner. It is attended by executives, CEOs and board members of all Australia's major Ports as well as those from the maritime services sector.

## OFFSHORE OIL & GAS

### APPEA Conference & Exhibition

[www.appeaconference.com.au](http://www.appeaconference.com.au)



**Dates:** 14 - 17 June, 2021

**Location:** Perth Convention & Exhibition Centre (Perth, Western Australia)

Originally planned for May 2020, the event has been postponed to June 14-17, 2021.

The APPEA Conference and Exhibition is the largest annual upstream oil and gas event in the southern hemisphere, attracting thousands of delegates from across the country and around the world.

The conference's technical and business papers already submitted will be published in the 2020 APPEA Journal (to be released in May). Other elements of the Conference and Exhibition will however be postponed to the new date in 2021.

According to APPEA Chief Executive, Andrew McConville, while the industry's current focus is meeting the personnel, operational and community challenges posed by the COVID-19 pandemic, APPEA is committed to maintain its engagement with members, industry stakeholders and the broader community.