

41ST PARLIAMENT



Economics and Industry Standing Committee

Report 10

GROWING THE DEFENCE INDUSTRY IN WESTERN AUSTRALIA

Discussion Paper

Presented by Hon P.C. Tinley AM, MLA

November 2024

Committee Members

Chair	Hon P.C. Tinley AM, MLA Member for Willagee
Deputy Chair	Ms M. Beard, MLA Member for North West Central
Members	Ms E.L. Hamilton, MLA Member for Joondalup
	Ms A. Kent, MLA Member for Kalgoorlie
	Hon W.J. Johnston, MLA Member for Cannington

Committee Staff


Principal Research Officer	Ms Vanessa Beckingham
Research Officer	Mr Jamie Bourne

Legislative Assembly
Parliament House
4 Harvest Terrace
WEST PERTH WA 6005

Tel: (08) 9222 7857
Email: laeisc@parliament.wa.gov.au
Website: www.parliament.wa.gov.au

Published and printed by the authority of the Economics and Industry Standing
Committee of the Legislative Assembly of Western Australia, Perth.
November 2024
ISBN: 978-1-922759-49-8

(Series: Western Australia. Parliament. Legislative Assembly. Committees.
Economics and Industry Standing Committee. Report 10)
328.365



Economics and Industry Standing Committee

Growing the defence industry in Western Australia

Discussion paper

Report No. 10

Presented by

Hon P.C. Tinley AM MLA

Laid on the Table of the Legislative Assembly on 28 November 2024

Chair's Foreword

The tabling of this discussion paper marks the Economics and Industry Standing Committee's final report to the Legislative Assembly in the 41st Parliament.

Following a series of announcements about the development of a trilateral security partnership between Australia, the United Kingdom and United States to support Australia's acquisition of nuclear-powered submarines (known as AUKUS), there has been considerable discussion about the economic implications of increased defence activity in Western Australia (WA). We decided to complete this paper in light of a growing focus on WA's defence industry.

Although this paper does not analyse the foreign policy objectives of the Commonwealth Government (or those of its international partners), it does evaluate the evolving geostrategic value of WA to explain why the State is set to benefit from a significant expansion of defence investment.

In this paper we outline the current and prospective defence ecosystem in WA, and the potential implications of increased defence activity for the State's economy and industry. We also identify some of the key challenges that are likely to be involved in realising the full value of this defence opportunity in WA.

This opportunity is wider than AUKUS. Increased defence activity across the whole State presents a significant prospect for economic growth and diversification over the coming decades, potentially creating up to 10,000 new jobs and billions in economic activity.

WA has a strong existing industrial base with transferable skills from the resources and energy sectors, which provides a solid foundation for supporting defence projects.

However, substantial investment in infrastructure and workforce development is required. Access to skilled labour is a major concern across the defence industry. Competition from the resources sector and the need for specialised skills, especially in the nuclear field, pose significant challenges.

Another challenge is the governance and coordination of effort at the State Government level. 'Unity of command' is currently lacking; there appears to be a range of collaboration and engagement occurring between government. The Committee saw a need for an adequately resourced single point of entry into government for industry or other stakeholders, which allows them timely access to information about planning for defence activity.

The defence landscape is rapidly evolving, and this paper presents only a snapshot of information gathered by the Committee between 3 September and 28 November 2024. Given the condensed timeframe during which the Committee conducted its investigation, and the limitations it faced in gathering evidence due to these time constraints, the Committee did not invite prospective stakeholders to make submissions. Instead, it conducted 18 hearings and briefings with stakeholders selected from industry and

government (including Defence). Accordingly, the Committee does not make any formal findings or recommendations to government.

The Committee anticipates this paper could form the basis of a comprehensive inquiry into WA's defence industry by the Economics and Industry Standing Committee of the 42nd Parliament.

I extend gratitude to my fellow committee members for their hard work right up until the end of this Parliament, completing this final piece with continued dedication and effort. I thank the Deputy Chair, Merome Beard MLA, Member for Northwest Central; Ms Emily Hamilton MLA, Member for Joondalup; Ms Ali Kent MLA, Member for Kalgoorlie; and the Hon Bill Johnston MLA, Member for Cannington.

I also recognise the work of the committee secretariat, Ms Vanessa Beckingham, Principal Research Officer, and Mr Jamie Bourne, Research Officer.

A handwritten signature in blue ink, appearing to read 'P.C. Tinley', with a stylized flourish at the end.

HON P.C. TINLEY AM MLA
CHAIR

Contents

Chair's Foreword	iv
Executive Summary	xi
1 Introduction	1
<hr/>	
Rationale for this discussion paper	1
The AUKUS security partnership	2
Increased defence activity in Western Australia	3
Economic diversification	3
2 Western Australia's geostrategic advantage	5
<hr/>	
'Location, location, location'	5
Strategic deterrence and Australia's economic trade routes	9
Critical minerals and resources	10
3 Defence force assets in Western Australia	13
<hr/>	
Defence force presence	13
Weapons testing	14
Border protection	15
Joint defence installations in Western Australia	17
Naval Communications Station Harold E. Holt	17
Australian Defence Satellite Communications Station	17
Jindalee Operational Radar Network	18
Royal Australian Air Force in Western Australia	19
RAAF Curtin	19
RAAF Learmonth	19
RAAF Pearce	19
Royal Australian Navy in Western Australia	20
HMAS <i>Stirling</i>	20
Australian Army in Western Australia	21
Campbell Barracks	21
Irwin Barracks	21

Leeuwin Barracks	21
Taylor Barracks	22
4 The defence industry in Western Australia	23
<hr/>	
What are defence industries?	23
Meeting Australian Defence Force requirements	23
Industry engagement and support	25
Capability Acquisition and Sustainment Group	25
Security and Estate Group	25
Joint Logistics Command	25
Naval Shipbuilding and Sustainment Group	25
Defence industry structure	25
Defence industry employment and businesses	27
How the defence industry operates in Western Australia	29
Defence industry capabilities	30
Naval and maritime—Western Australia’s largest defence industry sector	30
Recent announcements	32
University and tertiary institutions	33
5 Economic contribution of defence in Western Australia	35
<hr/>	
Current analysis of defence economic contribution	35
Estimating the economic impact of defence in Western Australia	35
The defence sector	36
The defence industry	37
Challenges involved in estimating the economic impact of defence	38
Economic contribution of defence sector	38
Economic contribution of the defence industry	40
Defence industry growth	40
6 Defence industry opportunities	43
<hr/>	
Defence programmes and projects	43
Defence activity in Western Australia	43
A new defence precinct at Henderson	43

Upgrades to HMAS <i>Stirling</i>	48
Strategic Shipbuilding Agreement	48
Upgrades to RAAF Learmonth, Exmouth	51
Summary of opportunities	51
Naval sustainment and servicing allied vessels	51
Jobs opportunities	52
Supporting growth in regional areas through increased defence activity	53
Leveraging existing non-defence capabilities and expertise	54
Exporting defence capabilities	54
Conclusion	56
7 Workforce challenges	57
<hr/>	
Modelling the workforce	57
Current workforce estimates	58
The challenge of workforce preparation	59
A nuclear skills gap	59
Security clearances	60
Training a nuclear workforce	61
Regulatory challenges	62
Competing with the resources sector	63
Promoting careers in the defence industry	63
Early outreach and engagement	64
8 Supporting SMEs	65
<hr/>	
Challenges experienced by defence industry SMEs	65
An inconsistency of business opportunity	65
‘Between now and the bonanza’	66
Project delays and cancellations	67
Local content	68
9 Coordination and collaboration	71
<hr/>	
The State Government’s role in growing the defence industry	71
Governance and coordination	73

Collaborative efforts to date	73
Defence West: resourcing and outcomes	74
‘Unity of command’	75
Delivering land and infrastructure requirements	75
Industrial land and infrastructure requirements	75
Housing to accommodate increased defence activity	77
Timing and sequencing	79
Concluding remarks	79
Appendices	81
<hr/>	
1 Committee’s functions and powers	81
2 Hearings and briefings	83
3 Defence enterprise estate and infrastructure projects in WA	85
4 AUKUS in Western Australia	89
5 Glossary of terms	95
6 Acronyms	99

Executive Summary

Western Australia (WA) is a crucial component of Australia's national deterrence strategy. The Indo-Pacific region, which sits in proximity to WA, is a region of intensifying geostrategic competition. In 2020, the region was host to nearly 20 separate disputes and designated the world's largest area of geopolitical contest.

WA hosts a small Australian Defence Force (ADF) presence, with seven per cent of the ADF's permanent forces personnel and nine per cent of ADF reserves stationed here. Nevertheless, the State hosts a disproportionately high level of strategic infrastructure. Some of this infrastructure, particularly the joint defence installations, provides a nexus for ongoing military cooperation with Australia's allies and forms an important part of the ADF's first line of defence into the Indo-Pacific.

The AUKUS Optimal Pathway is the single biggest investment in Australia's defence capability in history. Under this initiative, HMAS *Stirling* in Rockingham will be the focus of efforts to develop the nation's ability to safely own, operate, maintain and regulate a conventionally-armed, nuclear-powered submarine capability. As part of this initiative, HMAS *Stirling* will host a rotational presence of UK and US nuclear-powered submarines—known as Submarine Rotational Force-West (SRF-West)—from 2027. Following the sale of three Virginia-Class submarines from the US in the early 2030s, HMAS *Stirling* will be the base of Australia's first sovereign conventionally-armed, nuclear-powered submarine capability.

Other defence-related activity in the State is also on the rise. Defence is investing heavily in its infrastructure in WA to strengthen its presence in the region. The State is set to receive a significant share of a recent \$11 billion shipbuilding announcement to build General Purpose Frigates, Large Optionally Crewed Surface Vessels and Evolved Cape Class Patrol Boats over the next ten years. WA will be the primary location for designing, building, and sustaining these vessels for the ADF.

As businesses which form a part of supply chains supporting military capability and (or) that are influenced by Department of Defence and ADF (referred to collectively as 'Defence') policies and procurement, defence industries are integral in supporting Defence objectives. These businesses sit within sectors such as research and development, engineering, manufacturing and the service of military material and facilities across air, sea and land domains.

The pipeline of capital works, construction and sustainment programmes associated with increasing defence activity will have major implications for WA's defence industry and, if identified challenges are mitigated, could have significant economic benefits for the domestic economy.

Growing defence industries could present an opportunity to diversify the State's economy, which is essential if WA is to remain globally competitive. Although the proportion of WA's gross value added (GVA) contributed by the defence industry is small, there are indications

that the defence industry could eventually grow to rival some of the State's existing industries.

The expansion of the defence industry is expected to create thousands of new jobs, both directly and indirectly. These jobs will potentially span various sectors, including construction, manufacturing, and support services. There will be a number of jobs in the construction sector as a result of maritime infrastructure investment, and there will be flow-on work from growth in and around the Australian Marine Complex (AMC) at Henderson. The Committee heard that up to 10,000 new jobs, direct and indirect, could be generated by the increased defence activity in and around Henderson and at HMAS *Stirling* alone.

The increasingly advanced skills requirements for defence-related work will necessitate significant upskilling within the defence workforce, which could lead to economic benefits for WA, as upskilled workers are capable of working in multiple sectors. For example, there is an urgent need to upskill a workforce to maintain and build nuclear submarines which presents a significant opportunity for workforce development in WA.

WA has a strong existing industrial base with transferable skills from the resources and energy sectors. This provides a solid foundation for supporting defence projects. WA, with its strong resource sector, has a solid history in managing large-scale, high-risk and high-cost infrastructure projects. There is opportunity for this expertise to be leveraged into defence supply chains, particularly in areas like design and construction. On the other hand, there will be a challenge in maintaining workforce share; that is, not losing skills and labour to the resources sector.

An increase in defence activity in regional areas of the State, particularly the north west, has the potential to benefit local communities if appropriately managed. This activity presents an opportunity for economic diversification and job creation in regional areas traditionally reliant on industries like mining and tourism. Defence investment can be a key driver of sustainable economic growth and stability for these communities; however, realising these opportunities will require addressing housing and infrastructure constraints, as well as adequate communication about Defence planning.

With the upcoming AUKUS-related and other defence projects in WA there will be opportunities to maintain and service naval vessels, particularly submarines. AUKUS presents significant, long-term opportunities to support nuclear-powered submarines and surface ship sustainment.

Opportunities for defence industry growth will likely eventuate over the medium to long term. Realising opportunities for defence industries in WA will require addressing challenges such as skills and workforce constraints, timely security clearances, and the lengthy procurement timeframes and workflow variability associated with Defence work.

SMEs operating in the defence industry in Western Australia face a unique set of challenges. These challenges could hinder their ability to maximise future opportunities. Addressing these challenges will require a collaborative effort from both government and defence primes working with these SMEs. This includes providing, as far as possible, a more

predictable pipeline of work, supporting workforce development initiatives, streamlining Defence procurement processes and improving access to information.

WA's defence industry cannot be sustained by providing military goods and services only to the ADF. Therefore, being able to export defence-related goods or services could enable SMEs operating in the defence industry to maintain capability and remain in business. Given the number of Defence projects which will be undertaken over the next 10 to 30 years, it is crucial to be building industrial capacity now. Accessing export markets could assist SMEs to weather the 'peaks and troughs' which are inherent in defence industry work while also building capability and capacity.

Finally, the Committee considered the role of the State Government in facilitating defence industry growth. This is a complex and challenging role and will only become more so into the future. The State Government has a role in education and training, ensuring an adequately skilled workforce; housing and infrastructure and the allocation of land use; and providing a central point of coordination and information. Areas for improvement identified by the Committee include: resourcing constraints; the need for clearer objectives and outcomes for Defence West; improving communication and coordination between State Government agencies involved in defence industry development; and the lack of a clear 'entry point' for those outside government to engage on defence matters. Coordinating efforts related to the defence industry will be increasingly important, as will the timing and sequencing of these activities.

Establishing a central point of coordination for the defence industry in WA could streamline communication and planning. This could involve a dedicated statutory authority with sufficient resources and a mandate to oversee all aspects of industry development. However, this suggestion should not be seen to detract from the excellent work being carried out currently by the Defence West team.

A burgeoning defence industry in WA holds significant potential but is also faces substantial challenges. Addressing the issues related to workforce development, infrastructure, coordination, and SME engagement is crucial to ensuring the industry's long-term success and maximising economic benefits for the State.

Chapter 1

Introduction

Western Australia is already the engine room of the nation's economy. Now it's going to be the powerhouse of our defence industry ... It means multi-generational opportunities for Western Australians but also means that WA will have the backs of our Defence Force.

The Hon Paul Papalia MLA, Minister for Defence Industry¹

Rationale for this discussion paper

- 1.1 Following a series of announcements about the development of a trilateral security partnership between Australia, the United Kingdom (UK) and United States (US) to support Australia's acquisition of nuclear-powered, conventionally-armed submarines,² there has been considerable discussion about the economic implications of increased defence activity in Western Australia (WA).³
- 1.2 The objective of this discussion paper is twofold: first, to provide a snapshot of the current and prospective defence ecosystem in WA, and second, to delineate the potential implications of greatly increased defence activity for the State's economy and industry. As part of this exercise, the paper also identifies some of the key challenges that may be involved in realising the full value of the defence opportunity in WA.
- 1.3 The Committee resolved to draft this discussion paper on 2 September 2024. Due to the limited amount of time that was available to the Committee, and the fact that the defence industry is a rapidly evolving sector with many important decisions still to be finalised, it was decided that a discussion paper was the most appropriate form of reporting. For this reason, no recommendations are made to government.
- 1.4 The Committee held 11 public hearings (listed at Appendix Two), and another three closed hearings. In addition, the Committee was privately briefed on four separate occasions.
- 1.5 A range of stakeholders were examined by the Committee. These included industry representatives—from both defence prime contractors and small and medium-sized

1 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *Press Conference, Henderson*, joint transcript, 16 October 2024.

2 The AUKUS trilateral security partnership was announced on 15 September 2021: see, The White House, 'Joint Leaders Statement on AUKUS', 15 September 2021, accessed 18 October 2024, <<https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/15/joint-leaders-statement-on-aucus/>>.

3 See, for example, Thomas Hage and Serge DeSilva Ranasinghe, 'State of the Defence Sector in Western Australia 2021-22', *WA Defence Review 2021-22*, 4 December 2021, pp. 62-71; Connor McGoverne, 'Australia to have biggest naval precinct in southern hemisphere', *Nine News*, 16 October 2024, accessed 1 November 2024, <<https://www.9news.com.au/national/western-australia-henderson-naval-precinct-federal-funding/820f8b34-c4df-4638-9c9b-3170a90b52b2>>.

enterprises (SMEs)—officers from Commonwealth and State Government agencies, and advocacy groups.

- 1.6 At the time of writing, WA’s defence landscape is rapidly evolving. To that effect, this paper presents evidence about the potential impact of increased defence activity on the State’s economy and defence industry that the Committee gathered between 3 September and 28 November 2024.
- 1.7 The Committee anticipates this investigation could form the basis for a comprehensive inquiry into the growth of defence industry in WA during the next Parliament, which will be constituted following the State General Election due to be held in March 2025.

The AUKUS security partnership

- 1.8 WA is on the precipice of an extensive programme of defence investment. As part of the AUKUS partnership, the single biggest investment in Australia’s defence capability in history, the State will benefit from the first transfer of fissile material and nuclear technology from a nuclear weapons state to a non-weapons state under the 1968 Nuclear Non-Proliferation Treaty (NPT).⁴
- 1.9 Under the AUKUS Optimal Pathway,⁵ HMAS *Stirling* in Perth will be the focus of efforts to develop the nation’s ability to safely own, operate, maintain and regulate a conventionally-armed, nuclear-powered submarine capability.⁶ As part of this initiative, HMAS *Stirling* will host a rotational presence of UK and US nuclear-powered submarines – known as Submarine Rotational Force-West (SRF-West) – from 2027. Furthermore, HMAS *Stirling* will be the base of Australia’s first sovereign Ship Submersible Nuclear (SSN) capability following the sale of three Virginia-Class submarines from the US in the early 2030s.⁷
- 1.10 HMAS *Stirling* has already received initial visits from US Virginia-Class submarines to commence the training of Royal Australian Navy (RAN) personnel in the maintenance of SSNs.⁸

4 Ben Doherty and Daniel Hurst, 'What is the Aukus submarine deal and what does it mean? – the key facts', *The Guardian* (web-based), 14 March 2023, accessed 18 October 2024, <<https://www.theguardian.com/world/2023/mar/14/what-is-the-aukus-submarine-deal-and-what-does-it-mean-the-key-facts>>.

5 Australian Government: Department of Defence, *AUKUS nuclear-powered submarine pathway*, media release, 14 March 2023.

6 Australian Government: Australian Submarine Agency, *Western Australia*, p. 1.

7 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *Western Australia home for Australia’s first nuclear-powered submarines*, media release, 14 March 2023.

8 Australian Government: Department of Defence, *Joint Statement – Submarine Tendered Maintenance Period*, Statement, 23 August 2024; U.S. Embassy in Canberra, *U.S. Virginia-Class Submarine visits Perth, Australia*, media release, 4 August 2024; U.S. Embassy in Canberra, *U.S. Navy Submarine visits Perth, Western Australia*, media release, 14 March 2024.

Increased defence activity in Western Australia

In the context of naval and air force operations and exercises, WA is fast becoming a hive of activity.

- WA Defence Review 2023-24

- 1.11 Increased strategic competition in the Indo-Pacific is spurring waves of additional and intensifying defence activity in WA.
- 1.12 In 2023 the 10th iteration of Exercise Talisman Sabre took place, during which over 500 aviators from Combat Support Group (CSG) deployed to Royal Australian Air Force (RAAF) Curtin as part of a large-scale operation between Australia and the US.⁹
- 1.13 During Exercise Austrahind, the Australian Army hosted the Indian Armed Forces in Perth and other locations in WA as part of an army-to-army collective infantry training activity,¹⁰ and under Exercise Austral Shield, Australian Defence Force (ADF) personnel deployed to Derby to practice rapid mobilisation in Australia's north.¹¹ Between June and October 2024, the RAAF also hosted an extended fighter aircraft detachment from the Republic of Singapore Air Force (RSAF) at RAAF Pearce.¹²
- 1.14 As explained in later chapters, the pipeline of capital works, construction and sustainment programmes associated with WA's increasingly important role in defence will have major implications for the State's defence industry and significant economic benefits for its domestic economy.

Economic diversification

- 1.15 The defence sector contributed just 1.05 per cent of WA's Gross State Product (GSP) in 2018. In contrast, mining contributed 36 per cent (see Figure 5.1 in Chapter 5).¹³
- 1.16 An overreliance on the resources sector has exposed the State to negative external shocks (or boom-bust dynamics) in the past,¹⁴ and there is evidence that a changing global economic landscape may be less favourable to the sustainability of this dynamic in the future.¹⁵ For this reason, the State Government's economic development framework,

9 Flying Officer Connor Bellhouse, 'Sleepy air base awakens', *Australian Government: Department of Defence* (web-based), 2 August 2023, accessed 18 October 2024, <<https://www.defence.gov.au/news-events/news/2023-08-02/sleepy-air-base-awakens>>.

10 Major Sandra Seman-Bourke, 'Exercise strengthens Australia-India bond', *Australian Government: Department of Defence* (web-based), 7 December 2023, <<https://www.defence.gov.au/news-events/news/2023-12-07/exercise-strengthens-australia-india-bond#:~:text=Australian%20and%20Indian%20soldiers%20hold,part%20of%20Exercise%20Austrahind%202023.&text=Army%27s%2013th%20Brigade%20hosted%20the,army%20collective%20infantry%20training%20activity>>.

11 Australian Government: Department of Defence, *Exercise Austral Shield 2024*, media release, 29 July 2024.

12 Royal Australian Air Force, *Republic of Singapore Air Force extended fighter detachment to RAAF Base Pearce*, media release.

13 Department of Jobs, Tourism, Science and Innovation, *Western Australia Economic Profile December 2019*, December 2019, p. 1.

14 Center for International Development at Harvard University, *Growth Perspective on Western Australia*, April 2021, p. 5.

15 Government of Western Australia, *Future State: Accelerating Diversify WA*, 5 April 2023, p. 2.

Diversify WA, has identified defence industries as one of eight external facing sectors for prioritisation since 2019.¹⁶

1.17 Current estimates suggest that total Defence-related resources annually expended in WA (including major base activities, resident Defence workforce, platform maintenance, repair and exercises) contributes approximately \$3 billion per annum to the State's GSP.¹⁷

...we have a bold vision for Western Australia as a diversified economy ... one that can ride out the boom-and-bust cycle of the resources sector. And we've had defence industry firmly in our sights for some years now ...

1.18 As outlined in Chapter 5, as a proportion of the State's overall gross value added (GVA), the industry currently contributes approximately 0.12 per cent.¹⁸

- The Hon Roger Cook MLA, Premier of Western Australia

1.19 However, despite the very small economic contribution of defence activity to WA at present, there are indications that defence industry could eventually grow to rival some of the State's existing industries in the future.

1.20 Providing evidence before the Committee about the broader economic implications of the defence opportunity in WA, Professor Gordon Flake of the USAsia Centre explained:

I do think that this is, for the purposes of this committee, a tremendous opportunity to help enable us to do something that we know we have to do, which is diversify, diversify, diversify. We as a state are so fortunate in that we have benefited so much over the course of decades now from the exports of a relatively small number of commodities to a small number of countries. But as we have seen, there is risk in that concentration, both in markets and concentration in things, so the more that we can strengthen that base, the better.¹⁹

1.21 Similarly, State and Federal Ministers are confident that the growth of local defence investment is the single largest economic diversification opportunity presented to WA for decades.²⁰

16 Government of Western Australia, *Diversify WA: July 2019 – July 2021*, 11 July 2019, p. 3.

17 Government of Western Australia, *Western Australian Defence and Defence Industries Strategic Plan*, October 2018, p. 11.

18 Rebecca Brown, Director General, Department of Jobs, Tourism, Science and Innovation, *Letter*, 25 October 2024, p. 4.

19 Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, p. 12.

20 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *Western Australia home for Australia's first nuclear-powered submarines*, media release, 14 March 2023; The Hon Anthony Albanese MP, Prime Minister and The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *New Defence Precinct at Henderson to deliver continuous naval shipbuilding and nuclear-powered submarine maintenance*, media release, 16 October 2024; The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *Radio Interview, ABC Radio Perth Mornings*, Transcript, 16 October 2024; Nicolas Perpetch, 'New AUKUS submarine servicing and shipbuilding precinct at Henderson to "rival resources industry" in WA', *ABC News* (web-based), 16 October 2024, <<https://www.abc.net.au/news/2024-10-16/new-aukus-submarine-servicing-base-at-hmas-stirling/104478192>>.

Chapter 2

Western Australia's geostrategic advantage

Western Australia is known for its industrial prowess and innovation and resources sector, but the State is playing an increasingly significant role in the Nation's defence and security related industry. With over 12,000 kilometres of mainland coastline, one third of the Nation's maritime border, Western Australia is the Country's Indian Ocean State, making Perth the Indian Ocean Capital. The location we are in has strategic importance and access to and influence in the Indian Ocean Region.

His Excellency the Honourable Chris Dawson AC APM, Governor of Western Australia²¹

'Location, location, location'

2.1 Although national policymakers have not always considered WA to be a strategic priority, an increase in regional competition over the past decade has positioned the State at the 'coalface' of Australia's national deterrence strategy.²²

2.2 The Indo-Pacific (see Figure 2.1)²³ is now home to approximately 60 per cent of the world's population,²⁴ three of the world's largest economies, and seven of the world's largest military forces:²⁵ even with slower economic momentum, the region is projected to deliver nearly two thirds of global growth over the next three decades. By 2030, it will consume more than half of the world's food supply and 40 per cent of its energy.²⁶

Australia's primary area of military interest is a region of islands and archipelagos that form a 'land bridge': one that connects Australia to the Pacific and South East Asia. So we are becoming a force optimised to fight in the 'littoral': the areas of the sea that influence the land, and the areas of that land that influence the sea.

- Lieutenant General Simon Stuart, Chief of Army, Australian Army

21 His Excellency the Honourable Chris Dawson AC APM, Governor of Western Australia, *The Governor's Address to the 2024 Indian Ocean Defence and Security Conference*, conference address, 24 July 2025, <<https://govhouse.wa.gov.au/the-governors-address-to-the-2024-indian-ocean-defence-and-security-conference/>>.

22 Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, pp. 3-4.

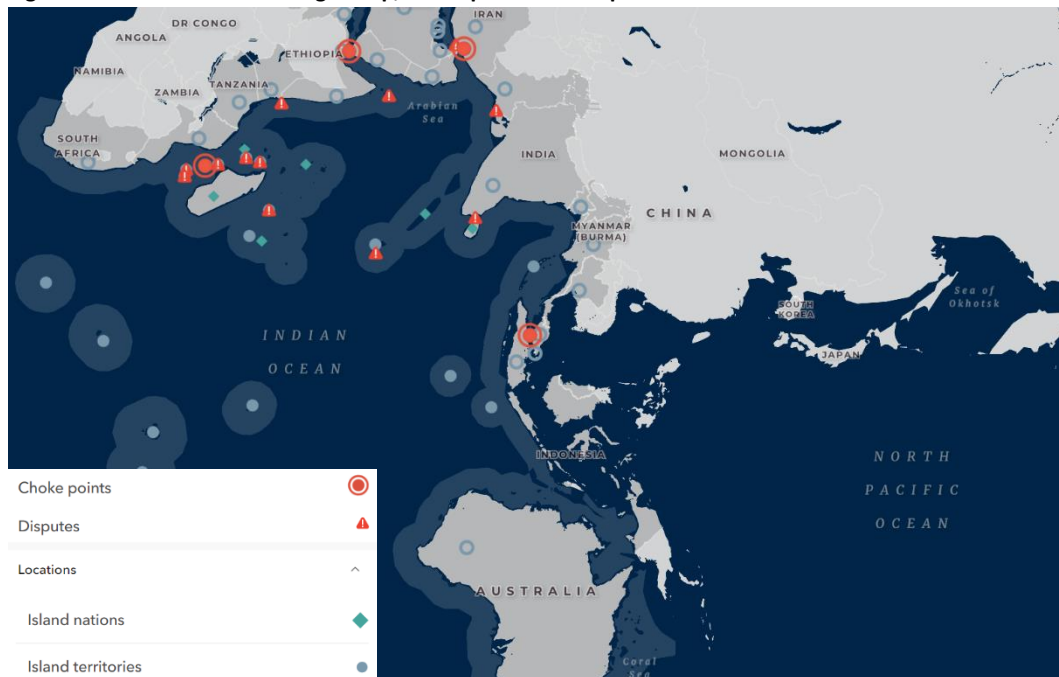
23 Note: The Australian Government has defined the Indo-Pacific as 'the region ranging from the eastern Indian Ocean to the Pacific Ocean connected by Southeast Asia, including India, North Asia and the United States. See, Australian Government, *2017 Foreign Policy White Paper*, 2017, pp. 28-30.

24 U.S. Embassy and Consulates in Australia, *White House Statement & Fact Sheet on Indo-Pacific Economic Framework for Prosperity*, 24 May 2022, accessed 15 October 2024, <<https://au.usembassy.gov/indo-pacific-economic-framework/>>.

25 European Parliament, *Briefing: Geopolitics in the Indo-Pacific: Major players' strategic perspectives*, July 2023, p. 2.

26 Australian Government, *2017 Foreign Policy White Paper*, 2017, pp. 28-30.

Figure 2.1: Indian Ocean Strategic Map, choke points and disputes²⁷



2.3 The Indo-Pacific is also a region of intensifying competition, both for power and the principles on which regional order should be based. In 2017, the Commonwealth Government’s Foreign Policy White Paper observed challenges to freedom of navigation, contests over the region’s airspaces and seas, and rivalries over the financing of regional infrastructure projects.²⁸ In 2020, the region was host to nearly 20 separate disputes and designated the world’s largest area of geopolitical contestation.²⁹ These disputes include competing claims over territories in the South China Sea such as the Spratly and Paracel Islands.³⁰

The Indo-Pacific is the most important geostrategic region in the world ... Defined by a large population, unprecedented economic growth, major power competition and an emerging multipolar distribution of power, but without an established regional security architecture.

- 2023 Defence Strategic Review

2.4 Speaking at the Sydney Institute, Deputy Prime Minister and Minister for Defence Richard Marles noted that strategic competition in the Indo-Pacific has been accompanied by greater investments in both conventional and non-conventional military assets. Over the past decade, military spending in the region has

27 Carnegie Endowment for International Peace, *Indian Ocean Strategic Map*, accessed 15 October 2024, <<https://indian-ocean-map.carnegieendowment.org/>>.

28 Australian Government, *2017 Foreign Policy White Paper*, 2017, pp. 26-27.

29 Robert Lansing Institute for Global Threats and Democracies Studies, *Navigating the fault lines in the Indo-Pacific*, 14 December 2020, accessed 15 October 2024, <https://lansinginstitute.org/2020/12/14/indo_pacific/>.

30 The Institute for Regional Security, *Securing Peace and prosperity in the Indo-Pacific*, June 2023, p. 3.

increased by approximately 50 per cent, with China engaging in the biggest military build-up in the world since the Second World War.³¹

- 2.5 Efforts to preserve a rules-based international order are central to Australia's foreign policy and are changing WA's role in the nation's defence strategy. As such, successive national security publications released by the Commonwealth Government have reiterated the strategic importance of Australia's northern and western approaches, which sit in immediate proximity to the Indo-Pacific (see Box 2.1). In 2012, an ADF Posture Review expressed concerns about the capacity of ADF bases, facilities and training areas to sustain 'high tempo' operations in these areas before making several recommendations about upgrades to military infrastructure and the presence of personnel in WA.³² This Review was followed by the release of the 2013 Defence White Paper, which emphasised the criticality of ensuring the freedom and security of sea lines from Australia's western coast and the weighting of strategic factors towards a north and north-west disposition.³³ Box 2.1 summarises the findings of national security publications over time.

Disputes and tensions in the South China Sea remain and worrying fault line. International rules and norms are coming under great pressure there ... we do have a substantial interest in the stability of this international waterway, and the norms and laws that govern it.

- Frances Adamson, Secretary of the Department of Foreign Affairs and Trade

- 2.6 Last year, the Commonwealth Government designated its 'primary area' of military interest as the 'immediate region encompassing the north-eastern Indian Ocean through maritime Southeast Asia into the Pacific,' which includes the nation's northern approaches.³⁴ According to the Defence Strategic Review, this designation was made on the basis that the Indo-Pacific security situation is now characterised by: strategic competition between major powers; the use of coercive tactics; the acceleration and expansion of military capabilities without transparency; the rapid translation of emerging and disruptive technologies into military capability; nuclear weapons proliferation, and an increased risk of military miscalculation.³⁵

White paper after white paper has insinuated the need of moving more assets, more people and more investment to where it is needed, which is the frontline, up in the north of Australia.

- Matthew Niikkula, Chair, North West Defence Alliance; President, Shire of Exmouth

31 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *The Sydney Institute*, Speech, 4 April 2024.

32 Australian Government, *Australian Defence Force Posture Review*, March 2012, pp. 18-28. These recommendations included upgrading RAAF Learmonth to enable protracted, unrestricted operations by KC – 30 and P – 8 aircraft, options for enhancing facilities at Broome as a forward operating base, enhancing Defence's familiarity and preparedness for operations in the North West through joint exercises, wargames, increased visits to airfields and ports, and the creation of a new One Star Navy appointment in WA.

33 Australian Government: Department of Defence, *Defence White Paper 2013*, 2013, pp. 14-47.

34 Australian Government, *National Defence: Defence Strategic Review*, 2023, pp. 27-28.

35 *ibid.*, p. 28.

- 2.7 Despite acknowledging that an invasion of the Australian continent is a remote possibility, the Review noted that potential adversaries may seek to coerce Australia through incursions into the north west, and accordingly made further sets of recommendations about upgrades to northern bases and infrastructure developments at HMAS *Stirling*.³⁶

Box 2.1: Strategic recommendations for defence in WA since 2012

2012: ADF Posture Review

This review called for: upgrades to RAAF Learmonth; the enhancement of Broome as a Forward Operating Base; creation of a new One-Star Navy Appointment in WA; improving the sustainability of the Pilbara Regiment, and expansion of wharf and Offshore Combatant Vessel (OCV) capacity at Fleet Base West.

2013: Defence White Paper

This paper called for: upgrades to airbases in WA to support aircraft operations (including P-8A maritime surveillance operations from the Cocos islands); the relocation and joint operation of a US C band space object detection and tracking radar to WA; the relocation of an optical US Space Surveillance Telescope to WA; a further study into enhanced cooperation with the US Navy at HMAS *Stirling*; enhancing the ADF's presence in WA through regular maritime security and asset protection exercises, and a joint training activity with the US Marine Rotational Force – Darwin.

2016: Defence White Paper

This paper called for: upgrades to Harold E. Holt Communications Facility; upgrades to the Yampi Sound Training Area by 2020 and increasing the capacity of the ADF to monitor the approaches to Australia with the P-8A Poseidon maritime surveillance and response aircraft and the high altitude MQ-4C Triton unmanned aircraft.

2023: Defence Strategic Review

This review called for: immediately commencing infrastructure development and facility upgrades at HMAS *Stirling* to support conventionally-armed, nuclear-powered submarine operations; Commonwealth and State Government intervention at the Henderson Shipyard to remedy workforce and logistics challenges; the completion of a Henderson-based large vessel dry-dock to ensure naval sustainment, maintenance and upgrading of naval vessels, and the construction of smaller surface vessels.

Sources: Australian Government, *Australian Defence Force Posture Review*, March 2012. Australian Government: Department of Defence, *Defence White Paper 2013*, 2013; Australian Government: Department of Defence, *2016 Defence White Paper*, 2016; Australian Government: Department of Defence, *National Defence: Defence Strategic Review*, 2023.

36 *ibid.*, pp. 76-80.

Strategic deterrence and Australia's economic trade routes

- 2.8 Australia is a middle-power maritime nation that is highly dependent on the free and uninterrupted flow of goods, services and finance. As a result, it has a vital role and interest in protecting maritime trade routes and sea lines of communication: as of 2020, 45 per cent of Australia's income was derived from international trade,³⁷ the vast majority of which (99 per cent) currently occurs by sea.³⁸
- 2.9 Many of Australia's major maritime trade routes that feed into Indonesian archipelagic sea lanes are situated in proximity to WA's coastline: these include the Sunda Strait, Lombok Strait and Timor Strait. In total, approximately two-thirds of Australia's exports by value and 40 per cent of its imports travel through the Indonesia archipelago, and of exports that enter Indonesia waters, 90 per cent are destined for North Asia and Southeast Asia.³⁹
- 2.10 According to the Commonwealth Government's 2024 National Defence Strategy, the risk of crises and conflicts arising in the Taiwan Strait is increasing in addition to other prospective flashpoints in the South and East China Seas.⁴⁰ Maintaining a favourable strategic balance in the Indo-Pacific is therefore vital to Australia's economic security.
- 2.11 The Australian Strategic Policy institute assumes that Australia's maritime trade with China—Australia's largest trading partner—would likely cease in the event of a conflict between China and the US, and that Chinese ships would cease to service Australia.⁴¹
- 2.12 With up to half of the RAN's surface and submarine fleet based permanently in WA,⁴² the State's capability to host a credible military force capable of projection into the Indo-Pacific has come to occupy a central component of Defence's 'Strategy of Denial.' Under this Strategy, Australia will aim to 'deter any conflict before it begins, prevent any potential adversary from succeeding in coercing Australia through force, support regional security and prosperity, and uphold a favourable regional strategic balance.'⁴³

A lot of damage can be done to Australia without anyone ever having to set foot upon our shore ... so our national security lies much further from Australia.

- The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence

37 Australian Government: Department of Foreign Affairs and Trade, *Trade and investment at a glance 2020*, accessed 16 October 2024, <[://www.dfat.gov.au/publications/trade-and-investment/trade-and-investment-glance](http://www.dfat.gov.au/publications/trade-and-investment/trade-and-investment-glance)>.

38 Anthony Galloway, 'New submarines will deter blockades that cut us off from the world: Marles', *The Sydney Morning Herald*, 19 March 2023, <<https://www.smh.com.au/politics/federal/new-submarines-will-deter-blockades-that-cut-us-off-from-the-world-marles-20230316-p5css4.html>>.

39 Australian Strategic Policy Institute, *The trade routes vital to Australia's economic security*, March 2024, p. 10.

40 Australian Government: Department of Defence, *National Defence Strategy*, 2024, p. 12.

41 Australian Strategic Policy Institute, *The trade routes vital to Australia's economic security*, March 2024, p. 9.

42 Royal Australian Navy, *Fleet Base West*, accessed 16 October 2024, <<https://www.navy.gov.au/about-navy/bases-and-locations/fleet-base-west>>.

43 Australian Government: Department of Defence, *National Defence Strategy*, 2024, p. 21.

- 2.13 According to Professor Gordon Flake, Chief Executive Officer at the Perth USAsia Centre, the stationing of conventionally-armed, nuclear-powered submarines in WA will enhance Australia's ability to act defensively and to dissuade potential adversaries from pursuing destabilising activities in the Indo-Pacific.⁴⁴ To explain this, Professor Flake paraphrased an analogy from the Hon Kim Beazley AC:

In any given backyard in Sydney there are funnel-web spiders which pack a real nasty bite and you do not want to mess with them ... if your kids have left the toys out in the backyard, you are going to go out and collect the toys, even though you know there are funnel-web spiders there ... a nuclear propelled Virginia-class submarine is like a hungry panther ... if you know there is a hungry panther in the backyard, you are not going to go out there.⁴⁵

Critical minerals and resources

- 2.14 Until recently, the geographic disposition of Australia's defence estate largely reflected Australia's demographic characteristics, with several older bases in the south and southeast of Australia established to support expeditionary capability during the two world wars. Since the 1960s, however, and in consideration of the rapid growth and scale of resource development in the north and north-west of Australia, there has been a sustained effort to increase the presence of defence infrastructure in WA.⁴⁶

Our geography, our resources and our trading relationships makes Western Australia and Northern Australia an increasingly important player in the nation's security and in the security of the Indo-Pacific region.

- The Hon Madeleine King MP, Minister for Resources and Minister for Northern Australia

- 2.15 Despite its relatively small population (10.9 per cent of Australia's total),⁴⁷ WA contributes 17.4 per cent of the country's gross domestic product (GDP)⁴⁸ and grew its domestic economy at more than twice the pace of Australia as a whole in 2023-2024.⁴⁹

- 2.16 The extraction of WA's natural resources is a central component of Australia's economic output. WA is the resources export hub of Australia. The resources sector produces more

44 Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, p. 5.

45 *ibid.*, p. 4.

46 Australian Government: Department of Defence, *Defence White Paper 2013*, 2013, pp. 46-47.

47 Government of Western Australia: Department of Treasury, *Population*, 19 September 2024, accessed 17 October 2024, <<https://www.wa.gov.au/organisation/departments-of-treasury/population>>.

48 Reserve Bank of Australia, *Composition of the Australian Economy: Snapshot*, 26 September 2024, accessed 17 October 2024, <<https://www.rba.gov.au/education/resources/snapshots/economy-composition-snapshot/>>.

49 Government of Western Australia, *WA's stand-out economic performance continues in 2023-24*, 4 September 2024, accessed 17 October 2024, <<https://www.wa.gov.au/government/media-statements/Cook-Labor-Government/WA%27s-stand-out-economic-performance-continues-in-2023-24--20240904>>.

than 50 different minerals from 134 projects across WA, and for over a dozen commodities, WA was ranked among the top 10 producers of those products in 2023.⁵⁰

2.17 According to the Chamber of Minerals and Energy, the State's resources sector currently accounts for 9 per cent of the nation's GDP, making a direct and indirect economic contribution of \$131 and \$101 billion respectively.⁵¹ WA is the largest iron ore supplier in the world, accounting for approximately 38 per cent of global supply in 2023,⁵² and the second largest global exporter of LNG behind the US (accounting for 12 per cent of global LNG exports in 2023).⁵³

Industrialised nations are all seeking secure access to sources of critical minerals and rare earths from trusted providers like Australia to provide for their defence. The demand for our critical minerals and rare earths will only grow as defence technology becomes more networked and automated and reliant on technologies such as drones and robotics.

- The Hon Madeline King MP, Minister for Resources and Minister for Northern Australia

2.18 The growth of the critical minerals sector has ascribed even more geopolitical weight to WA in recent years. Critical minerals are key enablers of the global energy transition. They are essential for manufacturing batteries, electric cars, wind turbines and solar panels: however, they are also essential for the production of defence systems and many other advanced technologies.⁵⁴

2.19 WA harbours some of the most significant critical mineral deposits in the world, including virtually all the minerals on Australia's critical minerals list, and is a leading supplier of lithium, nickel, cobalt, manganese, mineral sands and rare earths.⁵⁵

2.20 Rare earths are used in advanced fighter aircraft, submarines and weapons guidance systems. The world's most advanced fighter aircraft and each US Navy Arleigh Burke guided-

50 The Chamber of Minerals and Energy of WA, *Maps of major resource projects in Western Australia*, 2024, accessed 11 September 2024, <<https://www.cmewa.com.au/about/wa-resources/project-map/>>.

51 Chamber of Minerals and Energy WA, *Record spend from WA resources once again powers the nation's economy*, 18 March 2024, accessed 17 October 2024, <[52 Western Australian Treasury Corporation, *Western Australian Iron Ore Profile – August 2024*, September 2024, p. 1.](https://www.cmewa.com.au/media-release/articles/record-spend-from-wa-resources-once-again-powers-the-nations-economy/#:~:text=WA%27s%20resources%20sector%20alone%20accounted,economic%20contribution%20of%20%24101%20billion.>>.</p>
</div>
<div data-bbox=)

53 Department of Jobs, Tourism, Science and Innovation, *Western Australia LNG Profile – August 2024*, August 2024, p. 1.

54 Department of Jobs, Tourism, Science and Innovation, *Western Australia's Battery and Critical Minerals Strategy, 2024 - 2030*, 2024, p. 7.

55 Department of Jobs, Tourism, Science and Innovation, *WA's battery and critical minerals industry*, 27 August 2024, accessed 17 September 2024, <[11](https://www.wa.gov.au/organisation/department-of-jobs-tourism-science-and-innovation/was-battery-and-critical-minerals-industry#:~:text=WA%20has%20some%20of%20the,mineral%20sands%20and%20rare%20earths.>>.</p>
</div>
<div data-bbox=)

missile destroyer requires more than 400 kilograms of rare earths to produce: the amount required to produce a Virginia Class submarine is over 4 tonnes.⁵⁶

2.21 For this reason, access to WA's critical minerals deposits has become an increasingly important contributing factor to the sustainment of Australia's strategic partnerships, principally through allowing allies to reduce their dependence on China's dominance of global supply chains. As of 2023, China controlled 60 per cent of world-wide critical minerals production and 85 per cent of processing capacity.⁵⁷

2.22 Speaking at the 2024 Indian Ocean Defence and Security Conference, the Hon Madeleine King noted that:

Western Australia holds reserves of almost all the critical mineral and rare earth elements that are essential inputs to the advanced manufacturing, aerospace and defence industries of our allies and partners.⁵⁸

2.23 Under the *US Defense Production Act of 1950*, the US will designate Australia—and thereby WA—as a 'domestic source' of critical minerals,⁵⁹ allowing Australian companies to benefit from \$369 billion worth of clean energy incentives under the *Inflation Reduction Act of 2022*.⁶⁰

56 The Hon Madeline King MP, Minister for Resources and Minister for Northern Australia and The Hon Ed Husic MP, Minister for Industry and Science, *Address to Indian Ocean Defence and Security 2024*, speech, 24 July 2024.

57 Bonnie S. Glaser and Abigail Wulf, 'China's Role in Critical Minerals Supply Chains', *The German Marshall Fund* (web-based), 2 August 2023, accessed 17 October 2024, <<https://www.gmfus.org/news/chinas-role-critical-mineral-supply-chains>>.

58 The Hon Madeline King MP, Minister for Resources and Minister for Northern Australia and The Hon Ed Husic MP, Minister for Industry and Science, *Address to Indian Ocean Defence and Security 2024*, speech, 24 July 2024.

59 The White House, *Australia-United States Joint Leaders' Statement – An Alliance for our Times*, media release, 20 May 2023.

60 Australian Strategic Policy Institute, *The Road to Critical Mineral Security Leads through Australia*, 22 September 2023, accessed 17 October 2024, <<https://www.aspi.org.au/opinion/road-critical-mineral-security-leads-through-australia>>.

Chapter 3

Defence force assets in Western Australia

Number one, we have a national responsibility. This is our contribution to the national interest, to the national defence and to regional stability. This is not just about jobs. It is not just about economic opportunity for the state. It is kind of what we need to do to contribute because without us the defence of Australia, and ... maintaining a stable international environment, is much more difficult. We are doing this as part of the national endeavour and we need to always keep that front and centre.

Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre⁶¹

Defence force presence

- 3.1 Relative to the size of its population (10.9 per cent of Australia's total)⁶² and landmass (occupying 32.9 per cent of the nation),⁶³ the presence of the ADF in WA is small. As of 30 June 2023, just seven per cent of the ADF's permanent forces personnel were stationed in WA, in addition to nine per cent of the ADF's reserves (see Table 3.1).

Table 3.1: Defence workforce by employment in WA at 30 June 2024⁶⁴

	Army	Navy	Air Force	WA Subtotal	Australia Subtotal	Percentage of total in Australia
Permanent Force ⁶⁵	915	2,892	331	4,138	57,226	7.2
Reserves ⁶⁶	2,148	679	276	3,103	32,560	9.5
Australian Public Service ⁶⁷	-			572	19,831	2.8

- 3.2 Nevertheless, the State possesses a disproportionately high level of strategic infrastructure, and some of this infrastructure, particularly the joint defence installations, provides a nexus

61 Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, p. 12.

62 Government of Western Australia: Department of Treasury, *Population*, 19 September 2024, accessed 17 October 2024, <<https://www.wa.gov.au/organisation/departments-of-treasury/population>>.

63 Australian Government: Geoscience Australia, *Area of Australia – States and Territories*, 27 June 2014, accessed 13 November 2024, <<https://www.ga.gov.au/scientific-topics/national-location-information/dimensions/area-of-australia-states-and-territories>>.

64 Table adapted from Table 6.12: Defence workforce by employment location as of 30 June 2023: See, Australian Government: Department of Defence, *Defence Annual Report 2023-24*, 2024, p. 102.

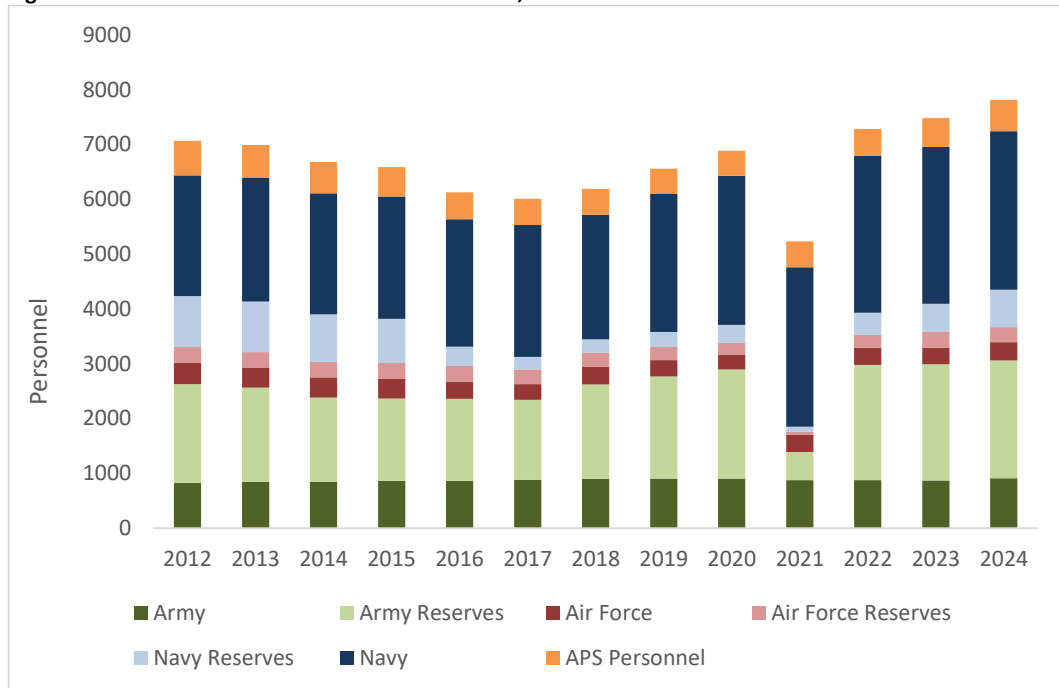
65 Permanent Force (Service Categories 6 and 7) does not include ADF Gap Year (Service Option G), which had 726 participants on 30 June 2024. Gap Year participants may be employed in multiple locations during their period of service.

66 Reserves include all members (Service Categories 3, 4 and 5) and Reserves undertaking continuous full-time service (Service Option C). This does not include Reserve Service Category 2.

67 Includes paid and unpaid employees, which covers full-time, part-time, ongoing and non-ongoing employees. The 30 June 2024 figures for the APS include 964 APS employees who are also counted as Reserve members.

for ongoing military cooperation with Australia’s allies. It is also an important component of the ADF’s first line of defence into the Indo-Pacific.

Figure 3.1: Defence workforce in Western Australia, 2012 - 2024⁶⁸



Weapons testing

- 3.3 Accessing suitable testing ranges poses a significant challenge for both Australian and international defence companies that develop weapons systems.⁶⁹ In consideration of the State’s landmass and the sparsity of population in some areas, it has long been considered an attractive location for the testing of military hardware.
- 3.4 WA has hosted several significant weapons tests, including three nuclear tests on the Montebello Islands (located approximately 120km from the State’s coast) between 1952 and 1956.⁷⁰

68 Table sourced after Department of Defence Annual Reports, see: Australian Government: Department of Defence, *Annual Reports*, accessed 1 November 2024, <<https://www.defence.gov.au/about/accessing-information/annual-reports>>.

69 Max Blenkin, 'Weapons testing facilities for defence industry', *Australian Defence Magazine* (web-based), 8 September 2023, accessed 14 November 2024, <<https://www.australiandefence.com.au/defence/land/weapons-testing-facilities-for-defence-industry>>.

70 State Library of Western Australia, *Montebello Islands Nuclear Testing: 1952 - 1956*, 10 February 2023, accessed 14 November 2024, <<https://slwa.wa.gov.au/stories/slwa-abc-radio/montebello-islands-nuclear-testing#:~:text=Montebello%20Islands%20Nuclear%20Testing%201952,off%20the%20Western%20Australian%20coast.>>.

- 3.5 According to Matthew Niikkula, Chair of the North West Defence Alliance, WA is receiving renewed attention for its weapons testing potential given that existing ranges at locations such as Woomera in South Australia are becoming less suitable.⁷¹
- 3.6 For example, as part of Exercise Highball in August 2023, a combined Australian Joint Operations Command and US Indo-Pacific Command (INDOPACOM) initiative conducted tests of HIMARS artillery rocket systems from the Lancelin Defence Training Area onto a maritime target offshore.⁷²
- 3.7 Commenting on the significance of WA's topography for military activities, Matthew Niikkula, Chair of the North West Defence Alliance explained:

It is exciting. A lot of our open areas—testing is one of the things. That is what the Shire of East Pilbara has identified. They have huge testing areas out there that can be utilised. Some of the big primes for defence are looking at weapons testing areas to be able to get out because over on the east coast, and especially in the south down around Woomera and everything, it is starting to not have as many proven testing grounds to be able to do that.⁷³

Border protection

- 3.8 Spanning 12,895km, WA has the longest mainland coast of any state or territory in Australia (occupying 35 per cent of the country's total).⁷⁴
- 3.9 In consideration of its geographical disposition, it is also Australia's 'gateway' to Asia, Africa, Europe and the Middle East:⁷⁵ although this is highly favourable to WA's resources and tourism sectors, it renders the State extremely susceptible to illegal immigration, fishing activities and the associated biosecurity risks to the local environment.⁷⁶
- 3.10 In WA (as of 31 May 2024), 36 (or 19 per cent) of individuals held in Immigration Detention Centres (IDCs) and Alternative Places of Detention (APODs) were detained for Unauthorised Maritime Arrival (UMA), and 49 (or 26 per cent) for reasons including illegal fishing, overstaying and not holding immigration clearance upon arrival.⁷⁷

71 Matthew Niikkula, Chair, North West Defence Alliance, *Transcript of Evidence*, 1 November 2024, p. 8.

72 Major Cam Jamieson, 'Long-range missile fire enhanced', *Australian Government: Department of Defence* (web-based), 3 August 2023, accessed 14 November 2024, <<https://www.defence.gov.au/news-events/news/2023-08-03/long-range-missile-fire-enhanced>>.

73 Matthew Niikkula, Chair, North West Defence Alliance, *Transcript of Evidence*, 1 November 2024, p. 8.

74 Australian Government: Geoscience Australia, *Border Lengths – States and Territories*, 31 July 2014, accessed 14 November 2024, <<https://www.ga.gov.au/scientific-topics/national-location-information/dimensions/border-lengths>>.

75 Business Events Perth, *Getting to Perth*, accessed 14 November 2024, <<https://www.businesseventspertth.com/discover-western-australia/getting-to-perth/>>.

76 Matthew Niikkula, Chair, North West Defence Alliance, *Transcript of Evidence*, 1 November 2024, pp. 7-8.

77 Australian Government: Department of Home Affairs, *Immigration Detention and Community Statistics Summary*, 27 June 2024, pp. 4-8.

Figure 3.2: Defence presence in Western Australia⁷⁸



3.11 To protect Australia from unauthorised arrivals, the Committee was informed by Nicole Spencer, Acting Deputy Commissioner, Strategy and Capability at the Australian Border Force (ABF) that the organisation maintains a significant presence of 600 personnel in WA, of which 100 are maritime crew.⁷⁹ These personnel are involved in civil maritime aerial surveillance (predominately in Broome, Christmas Island and the Cocos Islands), biosecurity destruction, maritime patrols and the transportation of detainees across remote areas of WA.⁸⁰

⁷⁸ Defence West, *State Defence Infrastructure Strategy – Initial Audit*, August 2023, p. 2.

⁷⁹ Nicole Spencer, Acting Deputy Commissioner, Strategy and Capability, Australian Border Force, *Transcript of Evidence*, 6 November 2024, p. 2.

⁸⁰ *ibid.*, pp. 3-7.

Joint defence installations in Western Australia

- 3.12 According to the US Department of Defence, there were 333 US military and Department of Defence Appropriated Fund (APF) Civilian Personnel stationed in Australia as of June 2024 (33 APF DoD Civilian, 141 Air Force, 23 Marine Corps, 79 Navy and 48 Army personnel on active duty). This equates to 0.14 per cent of all US military and DoD personnel stationed overseas.⁸¹
- 3.13 Although the US Department of Defence does not stipulate how many of these personnel are stationed in WA, the US is involved in maintaining a number of strategically significant joint defence installations.

Naval Communications Station Harold E. Holt

- 3.14 Located approximately six kilometres north of Exmouth, Naval Communication Station Harold E. Holt is used to transmit Very Low Frequency (VLF) signals to Australian and allied submarines operating in the Indo-Pacific from 13 towers exceeding 300 metres in height.⁸² The Station has been operated and maintained by DoD on behalf of the Commonwealth and the US since 2008.⁸³
- 3.15 In 2020 the Commonwealth Government announced an \$87 million investment towards improving facilities at the Station's joint US-Australian Space Surveillance Telescope, which enables Defence to track and identify objects (in addition to threats) in space.⁸⁴ As part of a \$1.2 billion Defence project to enhance Australia's Defence High Frequency Communications System (JP 9101 Phase 1), the Station may receive additional facilities and infrastructure by early 2027.⁸⁵

Australian Defence Satellite Communications Station

- 3.16 The Australian Defence Satellite Communications Station (ADSCS) is located at Kojarena, approximately 30 kilometres east of Geraldton. As part of a global system of satellite communications monitoring codenamed Echelon, which operates within a broader UK-US signals intelligence system, the Station is a major Australian signals interception facility. It is free from electromagnetic interference and therefore well-positioned for monitoring satellites in space.⁸⁶

81 United States of America: Department of Defence, *DoD Personnel, Workforce Reports & Publications: Military and Civilian Personnel by Service/Agency by State/Country (Updated Quarterly)*, June 2024, accessed 24 October 2024, <<https://dwp.dmdc.osd.mil/dwp/app/dod-data-reports/workforce-reports>>.

82 Government of Western Australia, *Heritage Council*, 31 December 2016, accessed 22 October 2024, <<https://inherit.dplh.wa.gov.au/public/inventory/details/e4360577-785a-4699-ae2b-b28d47cd4875>>.

83 Australian Government: Department of Defence, *Australia and the United States celebrate 50 years for Naval Communication Station Harold E Holt*, media release, 16 September 2017.

84 Australian Government: Department of Defence, *Defence supporting industry to develop world class space capability in WA*, media release, 13 July 2020.

85 Australian Government: Department of Defence, *Portfolio Budget Statements 2024-25, Budget Related Paper No. 1.4A: Defence Portfolio, 2024*, p. 152.

86 Nautilus Institute for Security and Sustainability, *Australian Defence Satellite Communications Station, Kojarena*, accessed 22 October 2024, <<https://nautilus.org/publications/books/australian-forces-abroad/defence-facilities/australian-defence-satellite-communications-station-kojarena/>>.

3.17 According to Regional Development Australia, ADSCS is linked to the US Wideband Global System of satellite communications and operated by the Australian Signals Directorate.⁸⁷

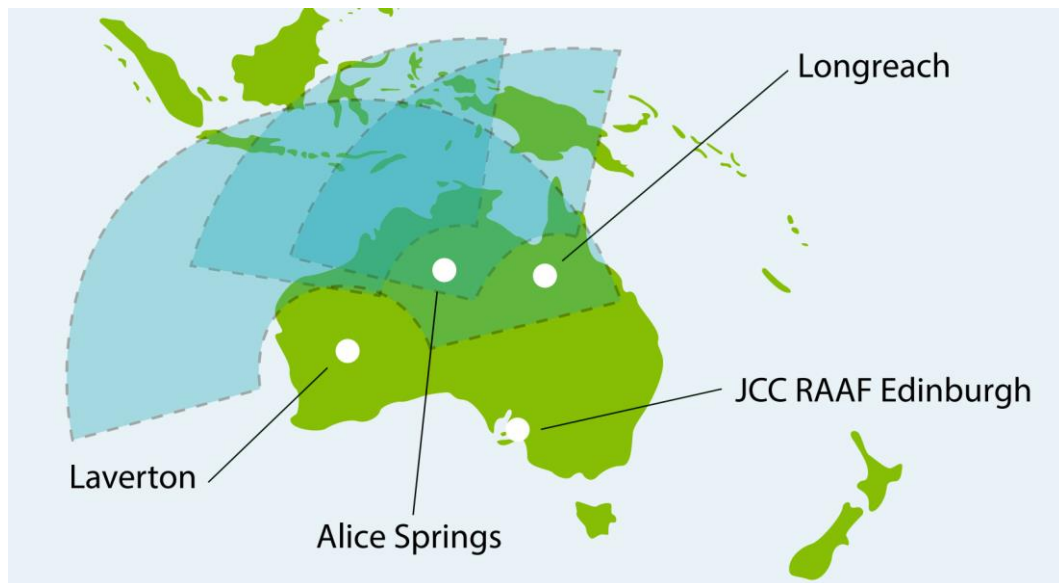
Jindalee Operational Radar Network

3.18 The Jindalee Operational Radar Network (JORN) comprises three over-the-horizon radar installations located in Longreach (Queensland), Alice Springs (Northern Territory) and Laverton (Western Australia). Radar data from these sensors is analysed at the JORN Coordination Centre (JCC) at RAAF Edinburgh in South Australia.⁸⁸

3.19 According to the Department of Defence (DoD), it is Australia's first land and air early warning system, providing 24-hour military surveillance of the country's northern and western approaches.⁸⁹

3.20 A new JORN capability is currently being developed in collaboration with Australian Industry, with support from Defence Science and Technology Group. This initiative will replace most of the radar and frequency management system hardware, and the system's information and communication technology hardware.⁹⁰

Figure 3.3: Jindalee Operational Radar Network and Coverage⁹¹



87 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 24.

88 Peterson and Schriever Space Force Base, *Jindalee Operational Radar Network*, accessed 22 October 2024, <<https://www.petersonschriever.spaceforce.mil/About-Us/Fact-Sheets/Display/Article/1059651/jindalee-operational-radar-network/>>.

89 Australian Government: Department of Defence, *Jindalee Operational Radar Network*, accessed 22 October 2024, <<https://www.dst.defence.gov.au/innovation/jindalee-operational-radar-network>>.

90 Australian Government: Department of Defence, *JORN Mid Life Upgrade*, accessed 22 October 2024, <<https://www.defence.gov.au/defence-activities/projects/jorn-mid-life-upgrade>>.

91 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 25.

Royal Australian Air Force in Western Australia

- 3.21 Just 2 per cent of RAAF permanent force personnel are currently based in WA.⁹² Nevertheless, RAAF facilities in WA are crucial for the projection of military power into the Indo-Pacific and form an important basis for cooperation with Australia's US and Singaporean allies.

RAAF Curtin

- 3.22 Located on the north coast of Western Australia, southeast of Derby and 170 kilometres east of Broome, RAAF Curtin is one of the RAAF's three 'bare bases,' meaning it can be used for training exercises and operations.⁹³ While no RAAF units are permanently based at Curtin, it forms a vital element of Australia's defence posture and has been 'activated' several times for large-scale exercises.⁹⁴

There has always been a wonderful symbiotic relationship between the US Defence and Australian Defence in Exmouth, and they are, between them, investing a huge amount of money in the area because they do identify it as being the most strategic location to be able to enhance what is already there.

- Matthew Niikkula, Chair, North West Defence Alliance

RAAF Learmonth

- 3.23 RAAF Learmonth is located approximately 30 kilometres south of Exmouth on the State's North West Cape peninsula. In addition to Curtin, it is a 'bare base' that can be used to support the RAAF's operational or exercise requirements.⁹⁵ The Base is currently undergoing a redevelopment to enable KC 30A operations (which allows the RAAF to conduct air-to-air refuelling):⁹⁶ this will involve runway; taxiway; lighting and parking infrastructure improvements.⁹⁷

- 3.24 According to Matthew Niikkula, Chair of the North West Defence Alliance, the US Air Force has recently indicated that following upgrades to Learmonth, it is planning to rotate forces through the base in a way that is similar to the model of operations currently employed by Marine Rotational Force – Darwin (MRF-D).⁹⁸

RAAF Pearce

- 3.25 Located in Bullsbrook, 35 kilometres north of Perth, RAAF Pearce is the principal Air Force base in WA: although its primary role is pilot training, Pearce is the only permanent RAAF base on the west coast of Australia and therefore plays a significant logistics role. The facility

92 Australian Government: Department of Defence, *Defence Annual Report 2023-24*, 2024, p. 102.

93 Royal Australian Air Force, *RAAF Base Curtin*, accessed 22 October 2024, <<https://www.airforce.gov.au/about-us/bases/raaf-base-curtin>>.

94 Royal Australian Air Force, *Opening of RAAF Base Curtin*, accessed 22 October 2024, <<https://www.airforce.gov.au/about-us/history/our-journey/opening-raaf-base-curtin>>.

95 Royal Australian Air Force, *RAAF Base Learmonth*, accessed 23 October 2024, <<https://www.airforce.gov.au/about-us/bases/raaf-base-learmonth>>.

96 Royal Australian Air Force, *KC-30A Multi-Role Tanker Support*, accessed 23 October 2024, <<https://www.airforce.gov.au/aircraft/kc-30a-mrtr>>.

97 Australian Government: Department of Defence, *RAAF Base Learmonth Redevelopment*, accessed 23 October 2024, <<https://www.defence.gov.au/about/locations-property/infrastructure-projects/raaf-base-learmonth-redevelopment>>.

98 Matthew Niikkula, Chair, North West Defence Alliance, *Transcript of Evidence*, 1 November 2024, p. 2.

is currently host to No. 2 Flying Training School, No. 453 Squadron Pearce flight air traffic control, No. 25 (City of Perth) Squadron airbase operations, No. 3 Security Forces Squadron Detachment Pearce, and No. 1 Expeditionary Health Squadron Detachment Pearce. In addition, Pearce accommodates the Republic of Singapore’s No. 130 Squadron.⁹⁹ The base is currently receiving upgrades to facilities and infrastructure to support the operation of P-8A Poseidon aircraft and will receive a new facility to provide simulated air capability training.¹⁰⁰

Royal Australian Navy in Western Australia

3.26 WA currently hosts 19 per cent of the RAN’s permanent force personnel, the second largest contingent of any state or territory behind New South Wales.¹⁰¹

3.27 Since the establishment of the Two Ocean Navy policy in 1987 (see Box 4.3 in Chapter 4), which recognised the strategic importance of the Indian Ocean for Australia’s defence, the RAN has maintained a significant presence in WA.

As the largest naval base in Australia, and the only one of the country’s western seaboard, HMAS Stirling is strategically pre-eminent to the Australian Defence Force... With the rise in prominence of the Indian Ocean and Asia Pacific regions, the base has markedly grown in utility and importance.

- Serge DeSilva-Ranasinghe and Mitchell Sutton, Australian Naval Institute

HMAS Stirling

3.28 HMAS *Stirling*, located in Henderson, currently provides logistics, communications, training and administrative support to RAN personnel and vessels operating from WA. It is currently the home port of 16 RAN vessels, including all six of Australia’s Collins-Class submarines, six Anzac-Class frigates, two submarine intervention gear ships, one Supply-Class Auxiliary Oiler Replenishment ship, and one Australian Defence Vessel (ADV).¹⁰² In total, up to half of the RAN’s surface and submarine fleet is based permanently in WA.¹⁰³ As of February 2021, more than 70 units and functions were based on HMAS *Stirling*, including the Submarine Training and Systems Centre, a helicopter support facility, the Defence Communications Station – Perth, and the Joint Logistics Units – West.¹⁰⁴ In addition to the recently announced infrastructure upgrades associated with the AUKUS security partnership, the base is undergoing upgrades to support the introduction of

99 Royal Australian Air Force, *RAAF Base Pearce*, accessed 24 October 2024, <<https://www.airforce.gov.au/about-us/bases/raaf-base-pearce>>.

100 Australian Government: Department of Defence, *Portfolio Budget Statements 2024-25, Budget Related Paper No. 1.4A: Defence Portfolio*, 2024, pp. 140-145.

101 Australian Government: Department of Defence, *Defence Annual Report 2023-24*, 2024, p. 102.

102 Royal Australian Navy, *HMAS Stirling*, accessed 24 October 2024, <<https://www.navy.gov.au/about-navy/bases-and-locations/hmas-stirling>>.

103 Royal Australian Navy, *Fleet Base West*, accessed 24 October 2024, <<https://www.navy.gov.au/about-navy/bases-and-locations/fleet-base-west>>.

104 Warrant Officer Class 2 Max Bree, 'HMAS Stirling continues to grow', *Australian Government: Department of Defence* (web-based), 22 February 2021, accessed 24 October 2024, <<https://www.defence.gov.au/news-events/news/2021-02-22/hmas-stirling-continues-grow>>.

Arafura-Class offshore patrol vessels, Hunter-Class frigates and explosive ordinance storage facilities.¹⁰⁵

Australian Army in Western Australia

- 3.29 The Australian Army currently has 3 per cent of its permanent force personnel in WA.¹⁰⁶ More than 3,000 Army personnel and active reserves are currently stationed here, which have been described as ‘some of the most innovative and elite personnel in the modern Australian Army.’¹⁰⁷

Campbell Barracks

- 3.30 Located in Swanbourne, Campbell Barracks is a major base for the Australian Army’s Special Air Service Regiment (SASR), an elite special forces unit tasked with conducting counter-terrorism missions and special operations.¹⁰⁸ The Barracks is currently undergoing infrastructure upgrades to provide a new health centre facility for the SASR,¹⁰⁹ and to provide facilities to support and sustain vehicles, modules and trailers under the LAND 121 Vehicle Acquisition Programme.¹¹⁰

Irwin Barracks

- 3.31 Irwin Barracks is located in Karrakatta and is host to the 13th Brigade of the Australian Army.¹¹¹ According to Regional Development Australia, this Brigade incorporates a High Readiness Reserve Combat Team, capable of deploying in conjunction with regular Army forces at short notice.¹¹²

Leeuwin Barracks

- 3.32 Leeuwin Barracks is a 14.3-hectare base that is currently classified as a surplus to Defence capability requirements.¹¹³ According to Defence West, the Barracks comprises a RAN technical training group in addition to a naval simulator.¹¹⁴

105 Australian Government: Department of Defence, *Portfolio Budget Statements 2024-25, Budget Related Paper No. 1.4A: Defence Portfolio, 2024*, pp. 139-146.

106 Australian Government: Department of Defence, *Defence Annual Report 2023-24, 2024*, p. 102.

107 The Hon Matt Keogh MP, Minister for Defence Personnel, *Speech at the Chief of Army Symposium, Perth, 29 August 2023*.

108 Defence Estate Community, *Campbell Barracks, Swanbourne WA*, accessed 25 October 2024, <<https://decnet.com.au/properties/swanbourne-campbell-barracks/>>.

109 Parliament of the Commonwealth of Australia: Parliamentary Standing Committee on Public Works, *Report 1/2018: Referrals made December 2017*, March 2018, p. 16.

110 Parliament of the Commonwealth of Australia: Parliamentary Standing Committee on Public Works, *Report 3 2020: Referrals made November 2019 and February 2020*, June 2020, p. 3.

111 Army & Air Force Canteen Service, *Irwin Barracks*, accessed 25 October 2024, <<https://www.aafcans.gov.au/outlet/irwin-barracks/>>.

112 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 31.

113 Australian Government: Department of Defence, *Factsheet: Leeuwin Barracks, Western Australia*, p. 1.

114 Defence West, *State Defence Infrastructure Strategy – Initial Audit*, August 2023, p. 14.

Taylor Barracks

- 3.33 As the headquarters of the Pilbara Regiment, one of three Regional Force Surveillance Units conducting surveillance and reconnaissance of remote areas in northern Australia,¹¹⁵ Taylor Barracks operates as a useful reserve to supplement the Regiment's profile throughout the North West. The Regiment is responsible for monitoring 1.3 million square kilometres of land and has additional depots in Exmouth, Port Hedland, Newman, Carnarvon and Perth.¹¹⁶

115 Australian Government: Department of Defence, *Taylor Barracks*, accessed 1 November 2024, <<https://www.defence.gov.au/about/locations-property/base-induction/taylor-barracks>>.

116 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, pp. 31-32.

Chapter 4

The defence industry in Western Australia

Western Australia is a leader in shipbuilding, and Defence is an important industry sector for Western Australia. Over the last 12 years Western Australia's Defence sector has grown to become one of the State's economic success stories.

Western Australian Defence and Defence Industries Strategic Plan¹¹⁷

What are defence industries?

- 4.1 The Commonwealth Government states that the defence industry is 'comprised of businesses with an industrial capability used to provide products or services used in, or which can be adapted to be used in, the Australian Department of Defence supply chain and/or an international defence supply chain.'¹¹⁸
- 4.2 The WA State Government has adopted the following definition of defence industries as provided by the Australian Industry and Defence Network:
- Defence industries are businesses that are actually or potentially involved in supplying military capability and/or are influenced by Defence business policies or purchasing decisions. They encompass research and development, engineering, manufacturing and the service of military material and facilities across air, sea and land domains.¹¹⁹
- 4.3 Australia's defence industry is composed of 3 tiers. Tier 1 businesses are the prime system integrators that provide Defence with platforms, systems or products. Tier 2 businesses deliver major equipment, systems, assemblies and services, and Tier 3 businesses provide parts, consumables and services. Most large defence companies and prime contractors (such as Raytheon, Lockheed Martin and Thales) operate within Tier 1, and most SMEs operate at Tier 3.¹²⁰

Meeting Australian Defence Force requirements

- 4.4 The defence industry is relatively unique in comparison to other industries in that demand is determined principally by decisions that the Commonwealth Government (rather than Australian consumers) makes about the strategic capabilities Australia requires to remain militarily effective.

117 Defence West, *Western Australian Defence and Defence Industries Strategic Plan*, October 2018, p. 30.

118 Australian Government, *What is Defence Industry?*, accessed 4 September 2024, <<https://www.defenceindustry.gov.au/about>>.

119 Defence West, *Western Australian Defence and Defence Industries Strategic Plan*, Government of Western Australia, November 2023, p. 30.

120 Australian Government: Department of Defence, *Defence Industry Development Strategy*, February 2024, pp. 10-11.

- 4.5 The operation and development trajectory of Australia’s defence industry is therefore heavily influenced by Commonwealth Government procurement activities. Defence awards thousands of contracts every year to businesses within the defence industry that support the provision of platforms, systems or products for the ADF. According to the Australian Department of Finance, Defence awarded over \$38 billion in contracts in 2022–2023, (almost 52 per cent of the value of all Commonwealth procurement contracts) of which approximately \$8 billion (or 22 per cent) went to SMEs.¹²¹
- 4.6 Businesses operating within the defence industry generally receive Defence contracts that give effect to Commonwealth defence strategies, such as the 2024 National Defence Strategy.¹²² These strategies outline the Commonwealth Government’s framework to implement urgent changes required to address Australia’s evolving strategic circumstances and are supported by Integrated Investment Programmes (IIPs). IIPs are published by the Commonwealth Government to specify the specific defence capabilities the Government will invest in¹²³ and are subject to a biannual review process.¹²⁴
- 4.7 The development of a sovereign defence industrial base is a critical component of the 2024 National Defence Strategy.¹²⁵ The design of the 2024 IIP was informed by the release of an earlier Defence Industry Development Strategy (DIDS),¹²⁶ which established seven Sovereign Defence Industrial Priorities (SDIPs):
- Maintenance, repair, overhaul and upgrade of ADF aircraft.
 - Continuous naval shipbuilding and sustainment.
 - Sustainment and enhancement of the combined-arms land system.
 - Domestic manufacture of guided weapons, explosives ordnance and munitions.
 - Development and integration of autonomous systems.
 - Integration and enhancement of battlespace awareness and management systems.
 - Test and evaluation, certification and systems assurance.¹²⁷
- 4.8 Under the 2024 IIP, Australia’s maritime defence domain will receive the highest amount of Commonwealth Government funding (38 per cent) for the decade 2024–2034, compared to

121 Australian Government: Department of Finance, *Statistics on Australian Government Procurement Contracts*, 28 November 2024, accessed 3 September 2024, <<https://www.finance.gov.au/government/procurement/statistics-australian-government-procurement-contracts->>.

122 Australian Government: Department of Defence, *National Defence Strategy*, April 2024.

123 Australian Government: Department of Defence, *2024 National Defence Strategy and 2024 Integrated Investment Program*, accessed 3 September 2024, <<https://www.defence.gov.au/about/strategic-planning/2024-national-defence-strategy-2024-integrated-investment-program>>.

124 Jennifer Parker, 'No pot of gold: Understanding Defence’s Integrated Investment Program', *Australian Strategic Policy Institute* (web-based), 12 April 2024, accessed 3 September 2024, <<https://www.aspistrategist.org.au/no-pot-of-gold-understanding-defences-integrated-investment-program/>>.

125 Australian Government: Department of Defence, *National Defence Strategy*, April 2024, pp. 55-60.

126 Australian Government: Department of Defence, *Integrated Investment Program*, April 2024, p. 12.

127 Australian Government: Department of Defence, *Defence Industry Development Strategy*, February 2024, pp. 15-20.

enterprise and enabling (22 per cent), land (16 per cent), air (14 per cent), cyber (seven per cent) and space (three per cent).¹²⁸

Industry engagement and support

4.9 Industry engagement in WA from within Defence is delivered through the following groups:

Capability Acquisition and Sustainment Group

4.10 The Capability Acquisition and Sustainment Group (CASG) meets the ADF's military equipment and supply requirements. CASG delivers Defence capability and manages government and client (capability managers) relationships. It also aims to improve 'strategic level partnerships with industry.'¹²⁹

Security and Estate Group

4.11 The Security and Estate Group (SEG) develops, sustains and manages all aspects of the complex Defence Estate (land, properties, bases) and delivers a wide range of security functions in relation to this role.¹³⁰

Joint Logistics Command

4.12 The Commander Joint Logistics (CJLOG) is the strategic logistics advisor to the Chief of the Defence Force and the Secretary. It is the capability manager for joint logistics, and delivers planning, coordination and logistics support for operations and exercises.¹³¹

Naval Shipbuilding and Sustainment Group

4.13 The Naval Shipbuilding and Sustainment Group (NSSG) delivers naval shipbuilding, naval capability acquisition and sustainment for Defence. It works in partnership with the RAN in delivering maritime capability. It 'is the Australian Government's policy lead for enabling a sustainable, national, sovereign shipbuilding industry and workforce.'¹³²

Defence industry structure

4.14 The Australian Bureau of Statistics (ABS) experimental estimates indicate that manufacturing is currently the main component of WA's defence industry GVA, accounting for approximately 38 per cent (or \$177 million) of the industry in 2022–2023. Behind education

128 Australian Government: Department of Defence, *Integrated Investment Program*, April 2024, p. 11.

129 Australian Government: Department of Defence, *Capability Acquisition and Sustainment Group*, accessed 15 November 2024, <<https://www.defence.gov.au/about/who-we-are/organisation-structure/capability-acquisition-sustainment-group>>.

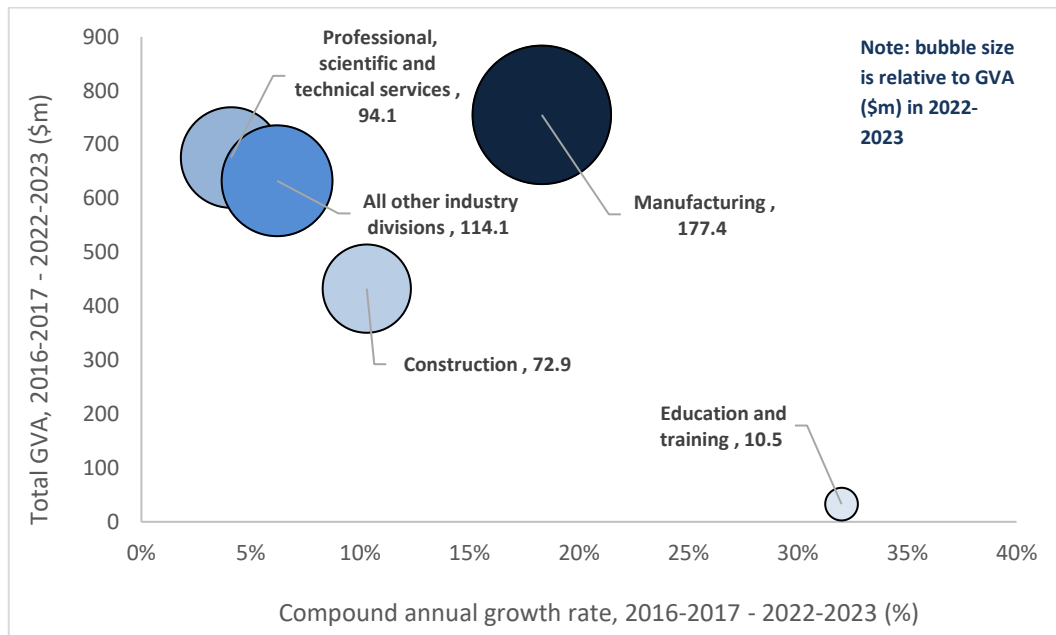
130 Australian Government: Department of Defence, *Security and Estate Group*, accessed 15 November 2024, <<https://www.defence.gov.au/about/who-we-are/organisation-structure/security-estate-group>>.

131 Australian Government: Department of Defence, *Joint Logistics Command*, accessed 15 November 2024, <<https://www.directory.gov.au/portfolios/defence/department-defence/joint-capabilities-group/joint-logistics-command>>.

132 Australian Government: Department of Defence, *Naval Shipbuilding and Sustainment Group*, accessed 15 November 2024, <<https://www.defence.gov.au/about/who-we-are/organisation-structure/naval-shipbuilding-sustainment-group>>.

and training, manufacturing was also the fastest growing component of defence industry GVA between 2016-2017 to 2022-2023 (see figure 4.4).¹³³

Figure 4.4: Current size and growth of WA defence industry by selected ANZSIC industry divisions¹³⁴



4.15 By contrast, services (professional, scientific and technical), construction and education and training contributed 20, 15 and two per cent respectively to defence industry GVA in 2022–2023. Although the remaining 25 per cent of defence industry GVA was not disaggregated by Australian and New Zealand Standard Industrial Classification (ANZSIC) industry division (see Box 4.2) for 2022–2023, this component nevertheless added a sizeable \$114 million.¹³⁵

133 Australian Bureau of Statistics, *Australian defence industry data cube: Australian defence industry gross value added (GVA) by State / Territory by selected ANZSIC industry divisions*, 27 March 2024, accessed 2 September 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates/latest-release>>.

134 *ibid.*

135 *ibid.* Note: according to the ABS, the Manufacturing ANZSIC industry division included the selected sub-divisions: Textile, leather, clothing and footwear manufacturing, Petroleum and coal product manufacturing, Polymer product and rubber product manufacturing, Primary metal and metal product manufacturing, Fabricated metal product manufacturing, Transport equipment manufacturing, Machinery and equipment manufacturing, Furniture and other manufacturing and Rest of manufacturing. The Construction ANZSIC industry division included: Building construction, Heavy and civil engineering construction and construction services. The Professional, scientific and technical ANZSIC industry division included professional, scientific and technical services (except Computer system design and related services) and Computer system design and related services. Other selected sub-divisions included Agriculture, forestry and fishing, Mining, Electricity, gas, water and waste services, Wholesale trade, Retail trade, Accommodation and food services, Transport, postal and warehousing, Information media and telecommunications, Financial and insurance services, Rental, hiring and real estate services, Administrative and support services, Public administration and safety, Health care and social assistance, Arts and recreation services and Other services.

Box 4.2: The Australian and New Zealand Standard Industrial Classification

ANZSIC provides a standard framework under which business units carrying out similar productive activities can be grouped together, with each resultant group referred to as an industry. An individual business entity is assigned to an industry based on its predominant activity (for example, Mining, Manufacturing, Retail trade). The ANZSIC underpins the standardised collection, analysis, and dissemination of economic data on an industry basis in Australia.

As the ANZSIC does not currently categorise businesses that invoice goods and services to DoD as a collective industry, Experimental Estimates from the ABS disaggregate these businesses according to the predominant activities they are engaged in when invoicing to DoD (the largest being manufacturing, and then construction, professional, scientific and technical services, and education and training).

The current ANZSIC Defence (7600) class consists of units of military defence (including those staffed by civilian personnel) stationed at home or abroad. Included are units mainly engaged in defence administration; the administration of defence research and development policies and associated funds; contingency planning; and carrying out military exercises in which civilian institutions and populations are involved.

Sources: Australian Bureau of Statistics, *Australian Defence Industry Account, experimental estimates methodology*, 27 March 2024, accessed 29 October 2024, <<https://www.abs.gov.au/methodologies/australian-defence-industry-account-experimental-estimates-methodology/2022-23>>; Australian Bureau of Statistics, *7600 Defence: Australian and New Zealand Standard Industrial Classification (ANZSIC)*, 26 June 2013, accessed 29 October 2024, <<https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-industrial-classification-anzsic/2006-revision-2-0/detailed-classification/o/76/760/7600>>.

Defence industry employment and businesses

- 4.16 The WA Defence Industry and Science Capability Directory records 239 businesses capable of servicing Defence.¹³⁶ Although the Directory does not indicate how this number may have changed since 2018 or stipulate the methodology behind it, it does show that most defence businesses operate in Perth.¹³⁷ Figure 4.5 shows the operational footprint of these businesses across WA.
- 4.17 By contrast, the ABS records 470 defence-related businesses operating within WA as of 2024. The ABS classifies these as businesses which have received payments from Defence for the provision of goods and services in any given year.¹³⁸ Similarly, DTWD stipulates that there are currently more than 450 businesses spanning the maritime, land, air, space and cyber sectors in WA.¹³⁹

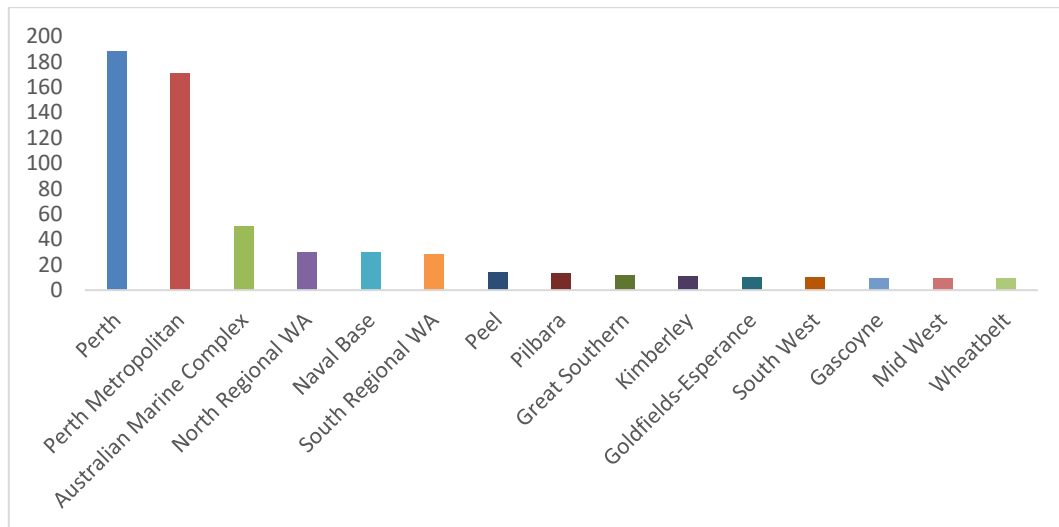
136 Defence West, *Defence Industry and Science Capability Directory*, accessed 30 October 2024, <<https://www.jtsi.wa.gov.au/economic-development/defence-west/wa-s-defence-capability>>.

137 Defence West, *Map: Western Australian Defence Industry and Science Capability Directory Companies Map*, accessed 30 October 2024, <<https://www.jtsi.wa.gov.au/economic-development/defence-west/map>>.

138 Australian Bureau of Statistics, *Australian defence industry data cube: Australian defence industry direct business counts by State / Territory*, 27 March 2024, accessed 2 September 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates/latest-release>>.

139 Karen Ho, Director General, Department of Training and Workforce Development, *Letter*, 13 November 2024, p. 1.

Figure 4.5: Businesses by region according to the WA Defence Industry and Science Capability Directory¹⁴⁰



4.18 ABS data indicates that the defence industry directly employed 3,000 individuals in WA as of 2022–2023, which equates to 4.7 per cent of Australia’s overall defence workforce¹⁴¹ and approximately 0.18 per cent of WA’s employed population.¹⁴² However, the Committee is informed by DTWD that this estimate is likely to be an undercount due to limitations in ABS data collection and methodology.¹⁴³ Nevertheless, between 2019–2020 and 2022–2023, WA’s defence industry employment headcount increased by 25 per cent.¹⁴⁴

4.19 The defence industry workforce is not only growing in headcount, but is also quickly evolving, with workforce requirements and the profile of defence work changing significantly as time goes on.¹⁴⁵ Workforce challenges are discussed in Chapter 7.

140 Note: as the Directory appears to record businesses operating in multiple regions simultaneously, this figure is not reflective of the Directory’s total business count in WA. See: Defence West, *Defence Industry and Science Capability Directory*, accessed 30 October 2024, <<https://www.jtsi.wa.gov.au/economic-development/defence-west/wa's-defence-capability>>.

141 Australian Bureau of Statistics, *Australian defence industry data cube: Australian defence industry direct employment headcount by State / Territory*, 27 March 2024, accessed 2 September 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates/latest-release>>.

142 Note: The ABS indicated the number of employed people in Western Australia was 1,616,100 as of August 2024. See, Australian Bureau of Statistics, *Labour Force, Australia*, 19 September 2024, accessed 7 October 2024, <<https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia/latest-release#states-and-territories>>.

143 Karen Ho, Director General, Department of Training and Workforce Development, *Letter*, 13 November 2024, p. 1.

144 Australian Bureau of Statistics, *Australian defence industry data cube: Australian defence industry direct employment headcount by State / Territory*, 27 March 2024, accessed 2 September 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates/latest-release>>.

145 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 2.

How the defence industry operates in Western Australia

- 4.20 The defence industry in WA is dominated by defence prime contractors,¹⁴⁶ also known as ‘defence primes.’ These are multinational companies, ‘with well-established systems enabling them to efficiently deliver defence projects.’¹⁴⁷ Defence primes operating in WA include businesses such as Austal, BAE Systems, ASC, Raytheon, Thales and Lockheed Martin.
- 4.21 Defence prime contractors engage with Defence via long-term contracts with possible sub-contracting opportunities for smaller businesses.¹⁴⁸ These prime contractors rely on a number of SMEs whose are recognised nationally, and sometimes internationally, for their defence capabilities.¹⁴⁹
- 4.22 Contracts in the defence industry often span several years with a commitment to provide a specific outcome (for example, building ships). However, the exact amount of work needed can fluctuate year to year, making it challenging to predict and manage workforce and supply chain requirements.¹⁵⁰
- 4.23 WA’s defence industry can support all five operational domains of the ADF, which include information and cyber, maritime, air, space and land operations.¹⁵¹ It has therefore been recognised as a vital component of national defence capability, both in its direct contribution to the development and acquisition of new capabilities, and through its role in the national support base.¹⁵²
- 4.24 Defence exports play an important role in sustaining the local defence industry.¹⁵³ Being able to export goods or services intended for defence or national security end-use enables businesses operating in WA’s defence industry to maintain capability and solvency. The opportunity for, and importance of, defence exports in WA is outlined Chapter 6.

It is retaining [SMEs] that is critical to us to be able to continue the operations of the business within Babcock here in Western Australia. We cannot do the job we do without them.

- Sarah Tartakowski, Head of Supply Chain, Babcock International Group

146 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 42.

147 Defence West, *Western Australian Defence and Defence Industries Strategic Plan*, Government of Western Australia, November 2023, p. 30.

148 Australian Government: Department of Defence, *Types of procurement*, accessed 4 September 2024, <<https://www.defence.gov.au/business-industry/procurement/policies-guidelines-templates/types-procurement>>.

149 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 42.

150 Andrew Davis, Executive Director, Strategic Growth and Sarah Tartakowski, Head of Supply Chain, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 10.

151 Invest and Trade Western Australia, *Defence Industries*, accessed 30 August 2024, <<https://www.investandtrade.wa.gov.au/our-industries/defence-industries>>.

152 House of Representatives: Joint Standing Committee on Foreign Affairs Defence and Trade, *Australia’s Defence Relations with the United States: Inquiry Report*, Canberra, 2006, p. 91.

153 Parliament of Australia, *Defence export strategy and regulation*, 25 January 2024, accessed 4 September 2024, <https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/Research/FlagPost/2024/January/Defence-exports>.

Defence industry capabilities

- 4.25 The defence industry in WA is dominated by the naval and maritime sector: WA has world-class shipbuilding capability and is home to the Australian Marine Complex (AMC) in Henderson, which is one of only two naval shipbuilding hubs in Australia.
- 4.26 In addition to the naval and maritime sector, the defence industry also includes a range of other capabilities:
- Defence aviation and sustainment is carried out on aircraft based at RAAF Pearce.¹⁵⁴
 - The defence industry in WA services and supplies ‘a small, yet diverse’ Australian Army presence and ‘land systems sector.’¹⁵⁵
 - The local Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) sector ‘supports strategic Defence communications facilities and ADF capabilities.’¹⁵⁶
 - Defence logistics contractors ‘work at equipment storage and distribution points at Defence facilities, such as Campbell Barracks, HMAS *Stirling*, Irwin Barracks, Leeuwin Barracks and RAAF Pearce.’¹⁵⁷
 - The WA defence industry is ‘heavily active’ in upgrades and sustainment of Defence estate and infrastructure.¹⁵⁸ Appendix Three lists defence estate upgrades approved in the 2024–2025 Budget.
 - In addition, there are a range of other business within the local defence industry providing ‘niche capabilities’ to Defence in WA.¹⁵⁹

Naval and maritime—Western Australia’s largest defence industry sector

- 4.27 WA’s shipbuilding capacity was advanced substantially during the Second World War, and today, this legacy is evident in several of the State’s docks, berthing facilities and associated maritime infrastructure.¹⁶⁰
- 4.28 During wartime, Fremantle was the base for a substantial portion of the allied submarine effort in the Southern Hemisphere.¹⁶¹ However, the 1987 announcement of the Two Ocean Policy (see Box 4.3), an ongoing resources sector boom in WA, and the establishment of the AMC in 2003 has given rise to an expansion of the State’s naval and maritime sector over recent decades.¹⁶²

154 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 52.

155 *ibid.*, p. 54.

156 *ibid.*, p. 55.

157 *ibid.*, p. 58.

158 *ibid.*

159 *ibid.*, p. 42 and p. 63.

160 Ben Wardle, Head of Operations Strategy, Austal, *Transcript of Evidence*, 13 November 2024, p. 2.

161 Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, p. 4.

162 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 44.

Box 4.3: Australia's Two Ocean Navy Policy

With the advent of the Cold War (1947-1991), the escalating geo-political rivalry between the US and the Soviet Union (particularly from the early 1970s onwards) flowed into the Indian Ocean region. The Soviet Union's presence in the western Indian Ocean was a matter of growing concern to Australia and spurred the 1971 *Joint Committee on Foreign Affairs Report on the Indian Ocean Region*. This subsequently led to the first Commonwealth Parliamentary inquiry into the Indian Ocean in 1976.

Defence planners, who had previously considered WA a low priority, became increasingly concerned over how to safeguard Australia's northern and western approaches. This increased interest ultimately led to the establishment of HMAS *Stirling* on Garden Island in 1978, and, in 1987, the relocation of a substantial proportion of the RAN to WA, including the entire submarine command. This marked the beginning of the Two Ocean Navy policy. Since then, WA has no longer been considered a strategic backwater. Today, HMAS *Stirling* is Australia's largest naval base and remains the centrepiece of Australia's Indian Ocean military posture.

Source: Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 12. Australian Government: Australian Submarine Agency, 'HMAS Stirling granted Freedom of Entry to City of Rockingham', 15 September 2023, accessed 19 November 2024, <<https://www.asa.gov.au/news/all-news/2023-09-15/hmas-stirling-granted-freedom-entry-city-rockingham>>.

4.29 WA plays a key role in the naval shipbuilding and sustainment component of the National Defence Strategy, and currently harbours most of Australia's ANZAC class frigates and the RAN's entire Collins class submarine fleet.¹⁶³

Box 4.4: The Australian Marine Complex

The AMC is a key resource of Defence, supporting the continuous build of naval vessels and the future maintenance and sustainment of submarines and surface vessels. Situated 23km south of Perth, it spans over 40 hectares with five precincts—shipbuilding, fabrication, support, technology, and recreational boating.¹⁶⁴ The AMC is considered to be a centre of excellence recognised internationally for 'manufacturing, fabrication, assembly, maintenance and technology development, servicing the marine, defence, mining, oil and gas sectors.'¹⁶⁵

The shipbuilding precinct within the AMC is integral to WA's shipbuilding, repair and maintenance industry. It also supports offshore construction. It is the largest component of the AMC, at approximately 35 hectares in size. It houses 'commercial shipbuilders and defence industry prime contractors who support the construction and maintenance of new naval and commercial vessels.'¹⁶⁶

Within the AMC fabrication precinct is the Common User Facility (CUF), which is a secure location for fabrication, assembly, commissioning, maintenance and repair activities for a range of industries, including defence. Business operating within the resources sector are also key users of the CUF.

Source: DevelopmentWA, *Australian Marine Complex – Precincts*, 2024, accessed 4 October 2024, <<https://developmentwa.com.au/projects/industrial-and-commercial/australian-marine-complex/precincts>>; Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 44.

163 Defence West, *Western Australian Defence and Defence Industries Strategic Plan*, Government of Western Australia, November 2020, p. 31.

164 DevelopmentWA, *Australian Marine Complex – Precincts*, 2024, accessed 4 October 2024, <<https://developmentwa.com.au/projects/industrial-and-commercial/australian-marine-complex/precincts>>.

165 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 44.

166 DevelopmentWA, *Australian Marine Complex – Precincts*, 2024, accessed 4 October 2024, <<https://developmentwa.com.au/projects/industrial-and-commercial/australian-marine-complex/precincts>>.

- 4.30 In WA, most defence prime contractors and SMEs service the ADF's maritime capability requirements. Many of these are clustered at the AMC at Henderson (see Box 4.4).¹⁶⁷ Defence contractors working on naval projects coexist alongside civilian operators within the AMC.

Recent announcements

- 4.31 The naval and maritime sector has received a boost recently with several announcements by Commonwealth and State governments, although how this translates into ongoing benefits for the local defence industry in its entirety remains to be seen.
- 4.32 In November 2023, Austal was identified as the strategic shipbuilder for Defence, with the intention of securing continuous shipbuilding at Henderson.¹⁶⁸
- 4.33 Austal is also building the Army's medium landing craft and heavy littoral manoeuvre vessels along with two new Cape Class patrol boats. As part of the release of the *Surface Combatant Fleet Review*, the Commonwealth Government announced in February 2024 that the RAN would acquire 11 new General-Purpose Frigates, with three bought from overseas and the remainder to be built at Henderson, most likely by Austal. Chapter 6 has more detail on Austal's role in continuous shipbuilding in WA.
- 4.34 In October 2024, the Commonwealth Government confirmed WA as the site for depot-level nuclear submarine sustainment for the RAN. The resulting Memorandum of Understanding (MoU) between the State Government and the Commonwealth will see WA's defence capabilities 'supported over the next two decades' (see Box 4.5).¹⁶⁹
- 4.35 The MoU provides for the development of a 'dedicated joint forum to deliver the skilled workforce required to deliver and sustain critical Defence capabilities.' It also establishes 'the necessary infrastructure, including new common user facilities, to support industry at the Australian Marine Complex.'¹⁷⁰
- 4.36 The Henderson hub will be split into defence and civilian precincts. The Henderson redevelopment is discussed in more detail in Chapters 6 and 9.

167 For a list of defence primes operating in WA see: Defence West, *WA Defence Industry Capability Directory, First Edition*, May 2018, pp. 11-36.

168 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 2.

169 Government of Western Australia, *New Defence Precinct at Henderson*, 31 October 2024, accessed 5 November 2024, <<https://www.wa.gov.au/government/announcements/new-defence-precinct-henderson>>.

170 Government of Western Australia, *New Defence Precinct at Henderson*, 31 October 2024, accessed 5 November 2024, <<https://www.wa.gov.au/government/announcements/new-defence-precinct-henderson>>.

Box 4.5: Cooperation agreement between the Commonwealth of Australia and the State of WA to deliver and sustain Australia’s future Defence capabilities

Released on 16 October 2024, this Cooperation Agreement (CA) established the respective commitments of State Government and the Commonwealth Government to deliver and sustain Australia’s future defence capabilities and the provide for the realisation of continuous naval shipbuilding in WA.

Although this CA is not intended to codify each Party’s obligations to specific funding and delivery arrangements, it does establish the principles, initiatives and responsibilities on which ongoing Commonwealth and State Government cooperation will be based. Significant aspects of this include:

- Minimal disruption to local industry, business, workforce and community
- The establishment of a Commonwealth Defence Precinct (the Defence Precinct) at the AMC in Henderson
- The establishment of a dedicated Commonwealth-State group to coordinate and collaborate on initiatives to support the development of a workforce required to deliver and sustain defence capabilities in WA
- The establishment of new State-owned Common User Facilities that can support current and future non-defence industries, activities and projects.

Source: The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence and the Hon Pat Conroy MP, Minister for Defence Industry and Capability Delivery and Minister for International Development and the Pacific, *Media Release*, 16 October 2024.

University and tertiary institutions

4.37 Universities and other tertiary institutions within the WA education and training sector play an important role in supporting defence industries. They provide specialised training and a research and development function.¹⁷¹ For example, the Committee heard from a range of stakeholders about the success of the South Metropolitan TAFE in training the defence industry workforce.¹⁷²

4.38 The State Government, through the Department of Training and Workforce Development (DTWD), manages ‘public investment in the training system through funding TAFE colleges and about 200 private training providers’ and administers the apprenticeship system: its WA Defence Industry Workforce Office (WADIWO) works with education and training providers to develop strategies to address defence industry requirements.¹⁷³

4.39 Education and training pathways for people interested in a defence industry career start in schools: the education pipeline will become increasingly important as the State’s defence industry grows to support increased Defence activity in WA.¹⁷⁴

171 Risk Intelligence Solutions, *Security and Defence in Western Australia: An Economic Perspective*, Regional Development Australia, Perth, November 2017, p. 60.

172 For example, see: Paul Gay, Chief Operating Officer, Multi-Class Sustainment, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, p. 10; Chris Clark, Coordinator General, and Sophie O’Keefe, Executive Director, Global Advanced Industries Hub, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 6 November 2024, p. 10; Ben Wardle, Head of Operations Strategy, Austal, *Transcript of Evidence*, 13 November 2024, p. 10.

173 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, pp. 1-2.

174 *ibid.*, pp. 6-7.

Chapter 5

Economic contribution of defence in Western Australia

I anticipate that defence industry will continue to grow. ... in the next decade it will probably rival if not supplant agriculture in terms of total value add to the economy.

Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre¹⁷⁵

Current analysis of defence economic contribution

- 5.1 Although successive announcements have indicated that defence investment will have significant economic benefits for WA, there is currently very little public information about the precise scale of this opportunity.
- 5.2 Some jurisdictions, such as the Northern Territory, have already commissioned economic analyses to model the potential impact of increased defence investment. In WA, such reports are scarce, and, on account of recent AUKUS announcements, now largely outdated.
- 5.3 In 2019, and in anticipation of the potential movement of Collins-Class submarine Full Cycle Docking (FCD) and Life of Type Extension (LOTE) to WA, Defence West engaged ACIL Allen to undertake an assessment of the impact this could have on the State's economy. This report estimated that the programme could add approximately \$8.1 to \$8.6 billion (real 2019 dollars) to GSP between 2021–2022 and 2035–2036 (or an average annual benefit of between \$542 to \$572 million) and an annual average of between 2,215 and 2,342 jobs.¹⁷⁶
- 5.4 The Committee understands that agencies at both State and Federal level are still conducting their respective analyses of the potential economic impact of increased defence investment in WA. Considering the IIP in defence in WA, and the fact that it is projected forward over decades, Defence West said that it is 'reasonable to assume' significant growth in the value of defence industry in WA.¹⁷⁷

Estimating the economic impact of defence in Western Australia

- 5.5 For the purposes of estimating the economic impact of defence in WA, there is a significant difference between the defence sector and defence industry.

175 Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, p. 10.

176 ACIL Allen Consulting, *The Economic Impact of Collins Class Full Cycle Docking in Western Australia*, 8 August 2019, pp. 18-19.

177 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs Tourism Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 8.

The defence sector

5.6 The defence sector refers to the overall contribution of defence-related activity to the State’s economy. While this includes Defence expenditure in WA, it also includes the flow-on economic impacts of this expenditure.¹⁷⁸ An economic multiplier is generally applied to the value of Defence expenditure by economists and government agencies to assess the overall economic benefits that Defence expenditure may deliver to the State (see Box 5.6).

For every dollar spent with a local prime, it gets re-spent multiple times through the community. If it is done well, which is the opportunity ahead of us, it leaves that ongoing legacy.

5.7 Austal witnesses explained that many individual companies within the defence industry currently apply an economic multiplier of 2.2, but that some can be as high as 3.6.¹⁷⁹

- Ben Wardle, Head of Operations Strategy, Austal

Box 5.6: The Multiplier Effect

The multiplier effect refers to the amount of additional GDP (or GSP) that may result from a change in government expenditure. The premise of this effect is that an initial increase in expenditure can lead to a larger increase in economic output because spending by one household, business or government is income for another household, business or government.

A multiplier greater than 1 implies that this spending induces additional private economic activity by circulating money through the economy.

Applied macroeconomics literature generally indicates that defence spending has a positive effect on economic growth. However, there are disagreements on precisely how large this impact is. Most defence spending studies have generally identified an economic multiplier of between 0.6 and 1.2.

The Department of Jobs, Tourism, Science and Innovation (JTSI) notes that the appropriateness of any multiplier should be reviewed periodically, and that the additional economic activity that is triggered by Defence expenditure is contingent on prevailing economic conditions.

Sources: Reserve Bank of Australia, *Economic Growth*, accessed 28 October 2024, <<https://www.rba.gov.au/education/resources/explainers/pdf/economic-growth.pdf?v=2024-10-28-09-37-37>>; Robert Barro and Veronique de Rugy, *Defence Spending and the Economy*, Mercatus Research, pp. 6-14; Bryan Rooney, Grant Johnson and Miranda Priebe, *How Does Defence Spending Affect Economic Growth?*, RAND Corporation, pp. 1-7; Australian Manufacturing Workers’ Union, *Submission: Senate Inquiry into the future of Australia’s naval shipbuilding industry*, p. 8; Rebecca Brown, Director General, Department of Jobs, Tourism, Science and Innovation, *Letter*, 25 October 2024, p. 1.

5.8 Caution should be exercised however, when applying a multiplier to defence-related investments, as different types of expenditure will likely have different flow-on economic impacts. JTSI advised that ‘the economic multiplier will be higher if defence-related expenditure leads to additional manufacturing of defence equipment within a region, as opposed to the importation of that equipment for deployment in that region.’ For example, research undertaken by the Western Australian Treasury Corporation has ‘found that there

178 Rebecca Brown, Director General, Department of Jobs, Tourism, Science and Innovation, *Letter*, 25 October 2024, p. 1.

179 Ben Wardle, Head of Operations Strategy, Austal, *Transcript of Evidence*, 13 November 2024, p. 6.

would be a higher economic benefit from defence-related shipbuilding and ship maintenance, relative to general defence expenditure.¹⁸⁰

- 5.9 Factors such as competition for skills and labour, the relatively small size of the WA labour market, and the cyclical nature of mining and construction activity in WA means that at different times, increased defence investment could re-allocate domestic resources without a net increase in economic activity (for example, by competing for workers already employed during a cyclical high in the mining industry).¹⁸¹

The defence industry

- 5.10 The defence industry contributes to just one facet of the overall economic value generated by the defence sector. According to the ABS, the defence industry refers to:

The production of goods and services invoiced to the Department of Defence... For an activity to be included in this definition, there must be a direct relationship between the Department of Defence and the supplier of the good or service. Only the direct defence industry contributions and employment are included.¹⁸²

- 5.11 This means that the economic contribution of the defence industry is not reflective of the total contribution of Australia's Defence portfolio. Rather, it captures the GVA¹⁸³ generated by the invoiced expenditure made by DoD within the scope of the economy.
- 5.12 This definition inherently limits the scope of the defence industry to activities directly related to DoD. In addition, the ABS excludes defence expenditure to overseas entities, defence expenditure to Australian entities that have imported the good and/or services represented on the invoice, transfers to other commonwealth government agencies, and wholesale and retail sales with no identified value add components in its definition of defence industry.¹⁸⁴

180 Rebecca Brown, Director General, Department of Jobs, Tourism, Science and Innovation, *Letter*, 25 November 2024.

181 Rebecca Brown, Director General, Department of Jobs, Tourism, Science and Innovation, *Letter*, 25 November 2024.

182 Australian Bureau of Statistics, *Australian Defence Industry Account, experimental estimates*, 27 March 2024, accessed 28 October 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates/2022-23#methodology>>.

183 Note: Gross valued added (GVA) refers to the value of output at basic prices minus the value of intermediate consumption at purchasers' prices. The term is used to describe gross product by industry and by sector. Basic prices valuation of output removes the distortion caused by variations in the incidence of commodity taxes and subsidies across the output of individual industries. See, Australian Bureau of Statistics, *Glossary: Australian System of National Accounts: Concepts, Sources and Methods*, 9 June 2021, accessed 28 October 2024, <<https://www.abs.gov.au/statistics/detailed-methodology-information/concepts-sources-methods/australian-system-national-accounts-concepts-sources-and-methods/2020-21/glossary>>.

184 Australian Bureau of Statistics, *Australian Defence Industry Account, experimental estimates methodology*, 27 March 2024, accessed 28 October 2024, <<https://www.abs.gov.au/methodologies/australian-defence-industry-account-experimental-estimates-methodology/2022-23>>.

- 5.13 To measure the defence industry in Australian States and Territories, the ABS has published the Australian Defence Industry Account (experimental estimates) since September 2022: the next edition of this publication is scheduled for release on 16 March 2025.¹⁸⁵

Challenges involved in estimating the economic impact of defence

- 5.14 Estimating the economic impact of defence in WA is a complex task. The highly confidential nature of some defence activity means there is a scarcity of data concerning DoD expenditure. Furthermore, only some data concerning the historic and forecast expenditure of DoD is publicly available, and where it is, this data is generally not disaggregated by year, State or Territory. Rather, DoD generally categorises its expenditure according to specific defence programmes which are often implemented in multiple states and territories simultaneously.¹⁸⁶

Economic contribution of defence sector

- 5.15 Very few estimates of the economic contribution of the defence sector in WA have been conducted. The most recent analysis, conducted in 2018 for the release of the WA Defence and Defence Industries Strategic Plan, estimated that overall defence-related activity (including major base activities, resident Defence workforce, platform maintenance and repair and exercises) contributed approximately \$3 billion to the State's GSP.¹⁸⁷
- 5.16 According to JTSI, this estimate was based on information about Defence expenditure in WA (\$1.1 billion in 2018) and the application of an economic multiplier (at 2.7) to capture the flow-on economic impacts of this expenditure.¹⁸⁸ Based on this, the defence sector contributed just 1.05 per cent of WA's GSP in 2018, as opposed to 36 per cent from the mining sector (see Figure 5.1).¹⁸⁹

185 For past estimates see: Australian Bureau of Statistics, *Australian Defence Industry Account, experimental estimates*, accessed 28 October 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates>>.

186 See, for example, Appendix B and Appendix C in, Australian Government: Department of Defence, *Portfolio Budget Statements 2024-25, Budget Related Paper No. 1.4A: Defence Portfolio*, 2024, pp. 120-139.

187 Defence West, *Western Australian Defence and Defence Industries Strategic Plan*, October 2018, p. 1. Note, gross state product (GSP) is the aggregate which details the total economic production of a state economy and is the state equivalent to GDP. See Australian Bureau of Statistics, *Overview of Gross State Product: Australian System of National Accounts, Concepts, Sources and Methods*, 9 June 2021, accessed 28 October 2024, <<https://www.abs.gov.au/statistics/detailed-methodology-information/concepts-sources-methods/australian-system-national-accounts-concepts-sources-and-methods/2020-21/chapter-21-state-accounts/overview-gross-state-product>>.

188 Rebecca Brown, Director General, Department of Jobs, Tourism, Science and Innovation, *Letter*, 25 October 2024, p. 1. Note: JTSI subsequently engaged the Western Australian Treasury Corporation (WATC) to validate these estimates and received notice that the 2.7 multiplier was not unreasonable.

189 Department of Jobs, Tourism, Science and Innovation, *Western Australia Economic Profile December 2019*, December 2019, p. 1.

Figure 5.1: Approximate contribution of select industry sectors to GDP in 2018-2019¹⁹⁰

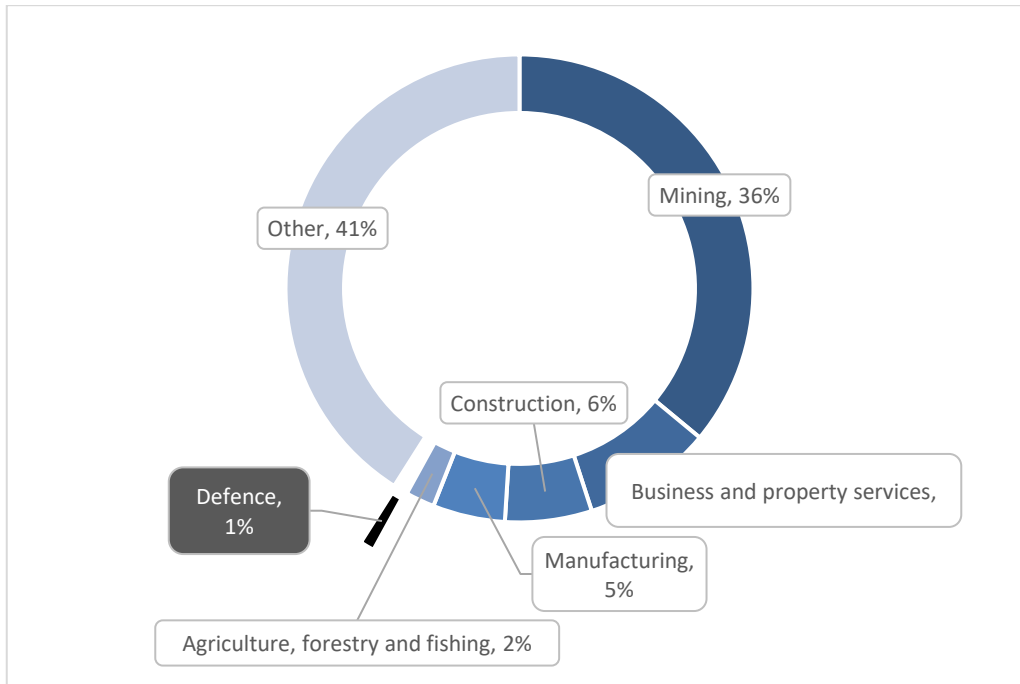
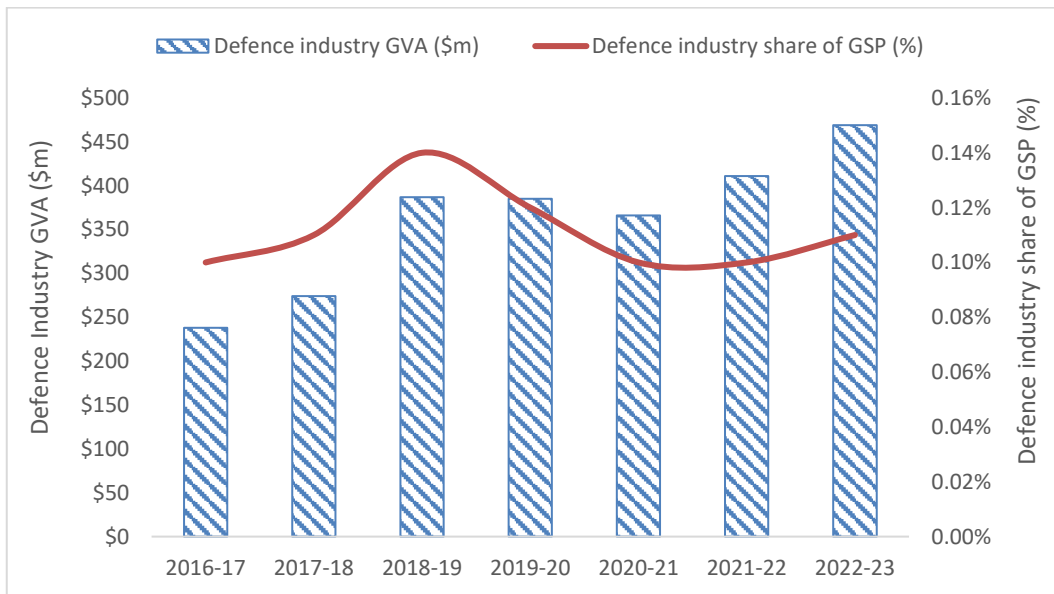


Figure 5.2: WA Defence Industry GVA and contribution to GDP, 2016-2017 – 2022-2023¹⁹¹



190 Figure based on Defence West, *Western Australian Defence and Defence Industries Strategic Plan*, October 2018, p. 1, and Department of Jobs, Tourism, Science and Innovation, *Western Australia Economic Profile December 2019*, December 2019, p. 1.

191 Australian Bureau of Statistics, *Australian defence industry data cube: Australian defence industry gross value added (GVA) by State / Territory by selected ANZSIC industry divisions*, 27 March 2024, accessed 2 September 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates/latest-release>>. WA's GSP is based after statistics provided by the Department of Jobs, Tourism, Science and Innovation: see, Rebecca Brown, Director General, Department of Jobs, Tourism, Science and Innovation, *Letter*, 25 October 2024, p. 3.

Economic contribution of the defence industry

- 5.17 The annual publication of the ABS Australian Defence Industry Account means it is easier to provide an up-to-date estimate of the defence industry in WA than the overall defence sector. Importantly, this allows for an analysis of the industry's growth over time.
- 5.18 According to ABS estimates, WA's defence industry GVA was \$469 million as of 2022–2023 (see Figure 5.2)¹⁹² and therefore occupied a 0.12 per cent share of the State's overall industry GVA (and 0.11 per cent of WA's GSP).¹⁹³
- 5.19 This places the defence industry's contribution to WA's industry GVA far behind other industries including: arts and recreation services; agriculture; forestry and fishing; and retail trade. As a point of contrast, the defence industry's contribution to industry GVA is approximately 425 times smaller than that of the mining industry.¹⁹⁴
- 5.20 The high GVA of WA's mining industry affects the proportionate share of the defence industry in the economy relative to other States and Territories.¹⁹⁵

Defence industry growth

- 5.21 Despite its modest contribution to WA's economy, the local defence industry is growing. According to ABS estimates, WA's defence industry had a compound annual growth rate (CAGR)¹⁹⁶ of 10.1 per cent in GVA between 2016–2017 and 2022–2023. This places WA's defence industry at the forefront of growth amongst States and Territories (second only to Queensland's defence industry, which had a CAGR of 10.4 per cent during the same period).¹⁹⁷

192 Australian Bureau of Statistics, *Australian defence industry data cube: Australian Defence Industry gross value added (GVA) by State / Territory by selected ANZSIC industry divisions*, 27 March 2024, accessed 2 September 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates/latest-release>>.

193 Note: WA's defence industry share of GSP is calculated using the same estimate of defence industry GVA from the *Australian Defence Industry Account*. The value of GSP is higher than the value of the sum of GVA of all industries, as the former includes ownership of dwellings, taxes less subsidies on production and imports, and a statistical discrepancy. As GSP is slightly higher than the sum of GVA of all industries, the defence industry's share of GSP is slightly lower than its share of all industries GVA. These adjustments are made so that the total GSP calculated on an industry basis is consistent with the total GSP when it is calculated on an expenditure basis (that is, the sum of household consumption, business investment, government expenditure (consumption and investment), and net exports (exports minus imports)).

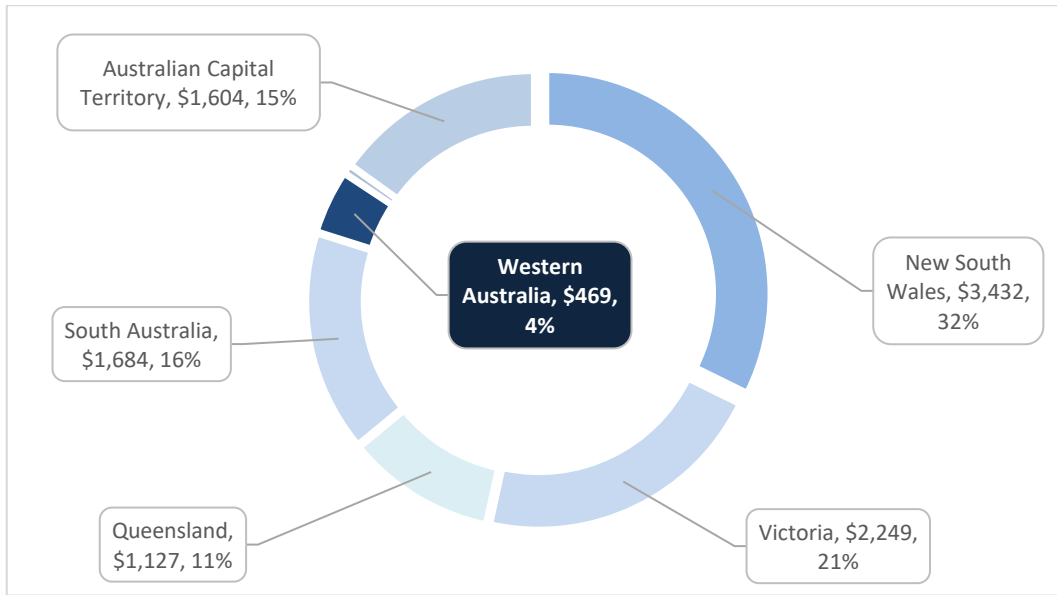
194 Department of Jobs, Tourism, Science and Innovation, *Western Australia – Economic Profile – Data and Charts – September 2024*, September 2024, accessed 7 October 2024, <<https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewiOyZLlrPulAxVykIYBHcFYGckQFnoECBQQAQ&url=https%3A%2F%2Fwww.wa.gov.au%2Fsystem%2Ffiles%2F2024-08%2Fwaeconomicprofiledatajuly2024.docx.xlsx&usq=AOvVaw2avqWGPF89m3HTIRXqY9p6&opi=89978449>>.

195 Rebecca Brown, Director General, Department of Jobs, Tourism, Science and Innovation, *Letter*, 25 October 2024, p. 3.

196 Note: A compound annual growth rate (CAGR) is the annualised average rate of growth between years, assuming growth takes place at an exponentially compounded rate.

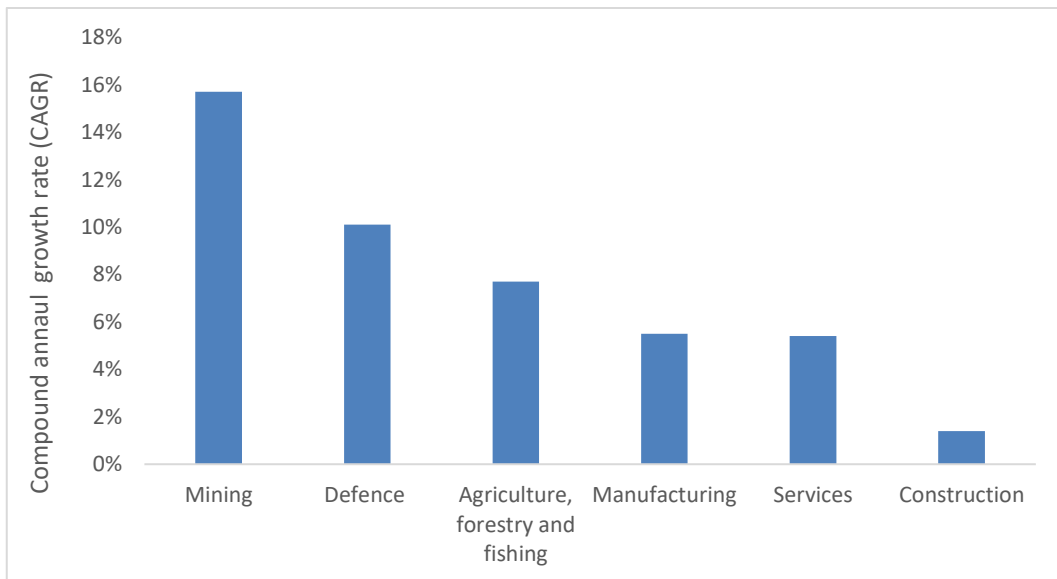
197 Australian Bureau of Statistics, *Australian defence industry data cube: Australian defence industry gross value added (GVA) by State / Territory by selected ANZSIC industry divisions*, 27 March 2024, accessed 2 September 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates/latest-release>>.

Figure 5.3: Australia defence industry GVA by State and Territory, 2022-2023¹⁹⁸



5.22 It also means that WA’s defence industry is amongst the fastest growing industries in the State. Figure 5.4 shows the growth of the defence industry compared to some of the State’s major industries between 2016–2017 and 2022–2023.

Figure 5.4: Industry GVA growth rates, 2016-2017 – 2022-2023¹⁹⁹



198 Department of Jobs, Tourism, Science and Innovation, *Western Australia – Economic Profile – Data and Charts – September 2024*, 11 October 2024, accessed 18 October 2024, <<https://www.wa.gov.au/government/publications/western-australias-economy-and-international-trade>>. The Northern Territory and Tasmania contributed \$51 (0.5%) and \$17 (0.2%) to defence industry GVA respectively but are not included here due to the small size of this contribution.

199 Department of Jobs, Tourism, Science and Innovation, *Western Australia – Economic Profile – Data and Charts – September 2024*, September 2024, accessed 7 October 2024, <<https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiOyZLlrPulAxVykIYBHcFYGckQFnoECBQQAQ&url=https%3A%2F%2Fwww.wa.gov.au%2Fsystem%2Ffiles%2F2024-08%2Fwaeconomicprofiledatajuly2024.docx.xlsx&usq=AOvVaw2avqWGPF89m3HtlRXqY9p6&opi=89978449>>.

Chapter 6

Defence industry opportunities

VISION BY 2030: Western Australia has developed into an internationally recognised advanced manufacturing hub that is the pre-eminent base of operations for all Australian Defence Force (ADF) and Alliance operations in the Indian Ocean.

Western Australian Defence and Defence Industries Strategic Plan²⁰⁰

Defence programmes and projects

- 6.1 Current Defence programmes such as the AUKUS Optimal Pathway (including AUKUS Pillar One), AUKUS Pillar Two, Defence Estate upgrades and initiatives arising from the *Naval Surface Combatant Fleet Review* will give rise to opportunities for WA's defence industry. Table 6.1 outlines the major Defence initiatives in WA.
- 6.2 The majority of defence industry opportunities will be supported by the further development and upgrading of maritime infrastructure in WA. Commonwealth Government support for the AUKUS programme currently dominates announced defence investment in WA, which has been named 'the AUKUS State.'²⁰¹ Appendix Four provides more detail about AUKUS and its implications for WA.

The new defence precinct at Henderson will deliver tens of billions of dollars in investment and thousands of local jobs.

Defence activity in Western Australia

A new defence precinct at Henderson

- 6.3 The AMC in Henderson is a crucial hub for defence activities, particularly naval shipbuilding and sustainment. The AMC includes a Common User Facility (CUF) that offers heavy engineering, fabrication, and assembly infrastructure to various industries, including defence. According to the Department of Jobs, Tourism, Science and Innovation (JTSI), approximately 30 per cent of activity at the AMC is currently occupied by defence work.²⁰²
- 6.4 The new defence precinct at Henderson will support the advancement of continuous naval shipbuilding. It will house depot-level maintenance (full-cycle docking) for SSNs which will

- The Hon Roger Cook MLA, Premier of Western Australia

200 Defence West, *Western Australian Defence and Defence Industries Strategic Plan*, October 2018, p. 3.

201 Kim Beazley, 'Western Australia is the AUKUS State', *The Australian* (web-based), 24 July 2024, accessed 9 September 2024, <<https://www.theaustralian.com.au/special-reports/western-australia-is-the-aukus-state/news-story/b60904cad4353f9e84a6ab5e18e8e027>>.

202 Chris Clark, Coordinator General, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 6 November 2024, p. 6.

occur as part of the AUKUS agreement, under which Australia will develop its ‘capability to safely operate and maintain conventionally-armed, nuclear-powered submarines.’²⁰³

Table 6.1: Defence initiatives in Western Australia²⁰⁴

Initiative	Description	Investment and opportunities
AUKUS Pillar 1 Conventionally-armed nuclear-powered submarine capability	<p>Pillar 1 will ensure that Australia is able to develop the expertise and infrastructure that is required to operate and maintain an SSN capability before the sale of Virginia Class submarines occurs in the early 2030s.</p> <p>As early as 2027, HMAS <i>Stirling</i> will host the rotational presence of UK and US nuclear-powered submarines. This initiative, known as SRF-West, will develop Australia’s ability to operate, maintain and safely steward our future AUKUS SSNs by skilling our Navy personnel and defence industry on visiting UK and US boats.</p>	<ul style="list-style-type: none"> • SRF-West is anticipated to generate 500 local jobs. • \$8 billion upgrade to infrastructure at HMAS <i>Stirling</i>, resulting in approximately 3,000 jobs. • Additional \$83 million to deliver defence infrastructure upgrades at HMAS <i>Stirling</i>.
AUKUS Pillar 2 Advanced capabilities	<p>Pillar 2 aims to bolster trilateral industry and innovation sector collaboration between AUKUS partners.</p> <p>Pillar 2 collaboration includes: cyber capabilities, artificial intelligence, quantum technologies; additional undersea capabilities; hypersonic and counter-hypersonic capabilities, electronic warfare capabilities; and innovation and information sharing.²⁰⁵</p>	<ul style="list-style-type: none"> • WA can play a critical role in the development and deployment of remote autonomous systems (RAS). Its advanced RAS capabilities are driven by the resources sector which has positioned WA as a global leader in this area.
Defence Estate Upgrades	<p>Defence is investing heavily in its infrastructure in WA to facilitate a more robust defence presence, supported by an uplifted defence industry.</p>	<ul style="list-style-type: none"> • A \$3.8 billion package to harden Australia’s northern bases from 2023 - 2027. RAAF Learmonth, RAAF Curtin and the Joint Naval Communication’s Station Harold. E. Holt are set to be receive upgrades.²⁰⁶
Naval Surface Combatant Fleet Review	<p>WA is set to receive a significant share of a recent \$11 billion shipbuilding announcement to build General Purpose Frigates, Large Optionally Crewed Surface Vessels and Evolved Cape Class Patrol Boats, over the next ten years.²⁰⁷</p> <p>WA will be the primary location for designing, building, and sustaining these vessels for the ADF.</p>	<ul style="list-style-type: none"> • This investment is expected to create approximately 1,200 new jobs in WA over the next decade.

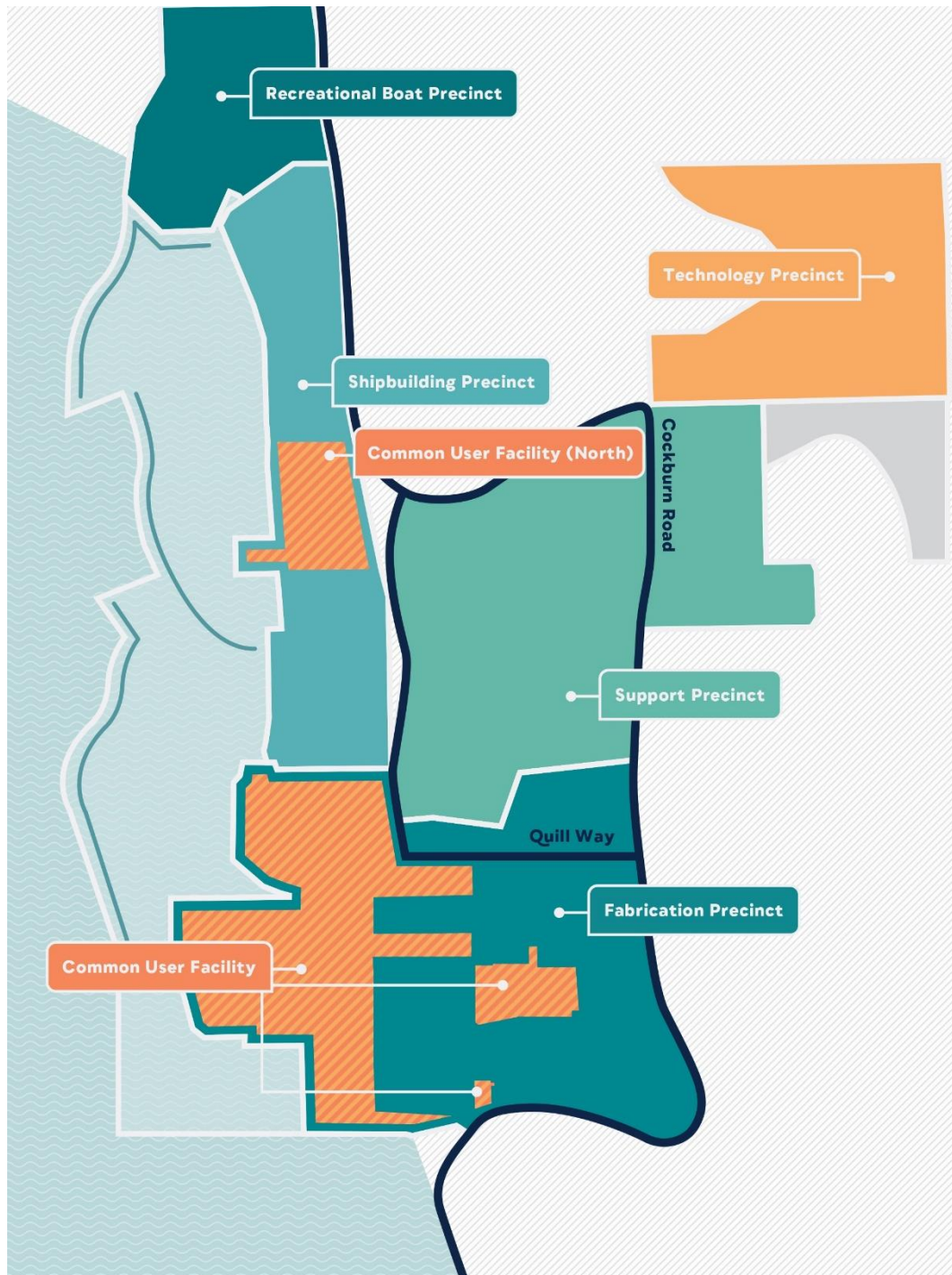
203 Government of Western Australia, *New Defence Precinct at Henderson*, 31 October 2024, accessed 5 November 2024, <<https://www.wa.gov.au/government/announcements/new-defence-precinct-henderson>>.

204 Table largely adapted from Government of Western Australia, *WA’s Defence Industry*, accessed 5 September 2024, <[205 Prime Minister’s Office, *Joint Leaders statement on AUKUS*, media release, 21 September 2021; and Prime Minister’s Office, *Fact sheet: implementation of the Australia-UK-US partnership \(AUKUS\)*, 5 April 2022. See also: Congressional Research Service, *AUKUS Pillar 2 \(Advanced Capabilities\): Background and Issues for Congress*, 21 May 2024.](https://theotherforce.wa.gov.au/was-defence-industry#:~:text=Naval%20Surface%20Combatant%20Fleet%20Review,over%20the%20next%20ten%20years.>>.</p>
</div>
<div data-bbox=)

206 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *Strengthening Australia’s Northern Bases*, media release, 27 April 2023.

207 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *Australia’s defence industrial base expanded to deliver Navy’s enhanced lethality surface combatant fleet*, media release, 20 February 2024.

Figure 6.1: Map of the Australian Marine Complex²⁰⁸



208 DevelopmentWA, *Australian Marine Complex - About*, accessed 18 November 2024, <<https://developmentwa.com.au/projects/industrial-and-commercial/australian-marine-complex/about-the-amc>>.

- 6.5 The precinct will also facilitate the construction of new landing craft for the Australian Army, General Purpose Frigates for the Navy, and include the necessary large vessel infrastructure to enhance Australia’s defence capabilities.²⁰⁹
- 6.6 A significant amount of work still needs to be carried out in preparation for depot-level maintenance, with an initial allocation from the Commonwealth Government of \$127 million to carry out planning, design and enabling works.²¹⁰ Over the next three years, a feasibility study will be conducted. JTSI has tendered for the feasibility study (or ‘common-use facility replication study’) with responses expected by the end of 2024. It is expected that a tender will be awarded soon after. That work will likely be undertaken in two stages throughout the first half of 2025 with an indicative sense around March regarding the decisions required and then a more complete understanding mid-2025.²¹¹

Figure 6.2: Australian Marine Complex, Common User Facility Map²¹²



- 6.7 The AMC sits within the Western Trade Coast. The WA State Government’s *Western Trade Coast Infrastructure Strategy* aligns with the plans described above and identifies critical infrastructure for de-constraining the area. The Strategy ‘outlines infrastructure

209 Government of Western Australia, *New Defence Precinct at Henderson*, 31 October 2024, accessed 5 November 2024, <<https://www.wa.gov.au/government/announcements/new-defence-precinct-henderson>>.

210 The Hon Anthony Albanese MP, Prime Minister and the Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *New Defence Precinct at Henderson to deliver continuous naval shipbuilding and nuclear-powered submarine maintenance*, media release, 16 October 2024.

211 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 2; Chris Clark, Coordinator General, Department of Jobs, Tourism, Science and Innovation *Transcript of Evidence*, 6 November 2024, p. 4.

212 Australian Marine Complex, *Common User Facility: Local Content & Local Jobs provide Quality Outcomes*, p. 2.

requirements to support supply chain requirements for industry, including shipbuilding and sustainment as a target industry for the region.²¹³

- 6.8 Defining the future defence precinct is the most pressing issue, according to Defence West, along with understanding the perimeter and transition timelines for the decommissioning of the current AMC CUF. This includes investigating where CUF capability might be relocated; that is, what is located in the northern harbour, and what will be re-located in strategic industrial areas across the State.²¹⁴
- 6.9 The feasibility study will assess the requirements for adjacent industries located at the AMC and the requirements of the SMEs based there which service the primes along the water strip. However, waterfront land is limited and will be challenging to allocate effectively.²¹⁵
- 6.10 As noted above, there might be opportunities to re-locate some businesses to other strategic industrial lands with port-side facilities. Defence West noted the importance of the SMEs that support defence as well as other industries being able to ‘continue operating in a sustainable way.’²¹⁶
- 6.11 The Coordinator General at JTSI told the Committee that there are ongoing negotiations with the Commonwealth Government about the cost of redeveloping the AMC to accommodate Defence requirements, and how that will ultimately be divided between the State and Commonwealth.²¹⁷
- 6.12 An ‘integrated project team’ has been established between the State and the Commonwealth, with several State bodies represented:
- From within JTSI this includes Defence West, the Coordinator General’s team, and the resource project facilitation team.
 - DevelopmentWA, as the operator.
 - Ventia, as the operator and facility manager of the AMC CUF.²¹⁸
- 6.13 Ventia is involved so that the forward demand profile at the AMC can be understood. That is, to understand what the energy and resources sectors require, as well as other maritime

213 Government of Western Australia, *New Defence Precinct at Henderson*, 31 October 2024, accessed 5 November 2024, <<https://www.wa.gov.au/government/announcements/new-defence-precinct-henderson>>.

214 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, pp. 2-3.

215 Peta Arbuckle, Executive Director, Defence West, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 3.

216 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 4.

217 Chris Clark, Coordinator General, Department of Jobs, Tourism, Science and Innovation *Transcript of Evidence*, 6 November 2024, p. 4.

218 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 3.

services industries. There is increased demand for use of the AMC, resulting in constraints and compression points.²¹⁹

- 6.14 With regards to future demand at the AMC, there is projected outlook for use and there are known bookings. Ventia have confirmed bookings until mid-2026, and beyond that there is a pipeline of activities.²²⁰

Upgrades to HMAS *Stirling*

- 6.15 HMAS *Stirling* currently provides administrative, training, communications and logistics support to ADF personnel and vessels based there: these include diesel-electric Collins Class submarines, support vessels, and several ANZAC Class frigates.²²¹
- 6.16 There is significant infrastructure investment planned for HMAS *Stirling* to accommodate SRF-West and the RAN's future Virginia-Class submarine fleet.²²² The Commonwealth Government is investing \$8 billion in infrastructure which will include wharf upgrades and the construction of new SSN maintenance, logistics and training facilities.²²³ In addition, it will invest over \$83 million to deliver defence infrastructure upgrades which is intended to span 32 projects at HMAS *Stirling*, including the remediation and maintenance of the Parkes Wharf, tunnel maintenance and building refurbishments.²²⁴

Strategic Shipbuilding Agreement

- 6.17 The Commonwealth Government and Austal Australia signed a Heads of Agreement (HoA) in November 2023.²²⁵ The HoA provides for the establishment of a Strategic Shipbuilding Agreement (SSA) which, if ultimately signed, will establish Austal as the Commonwealth's strategic shipbuilder at Henderson, Western Australia, for all Tier Two vessels.²²⁶ Under the

219 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 3; Sarah Tartakowski, Head of Supply Chain, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 13; Sophie O'Keefe, Executive Director, Global Advanced Industries Hub, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 6 November 2024, p. 3.

220 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 3.

221 Australian Government: Defence, *HMAS Stirling*, accessed 28 August 2024, <<https://www.defence.gov.au/about/locations-property/base-induction/hmas-stirling>>.

222 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 8.

223 Australian Government: Australian Submarine Agency, *Western Australia*, p. 1.

224 The Hon Matt Thistlethwaite MP, *Albanese Government boots key projects at HMAS Stirling*, media release, 8 April 2024.

225 Government of Western Australia, *Heads of Agreement (HoA) signed between Austal and the Commonwealth Government*, 23 November 2022, accessed 11 November 2024, <[226 Austal, *Austal Welcomes the Findings of the Surface Fleet Review*, 21 February 2024, accessed 11 November 2024, <<https://www.austal.com/news/austal-welcomes-findings-surface-fleet-review>>.](https://www.wa.gov.au/government/announcements/heads-of-agreement-hoa-signed-between-austal-and-the-commonwealth-government#:~:text=Austal%20are%20a%20WA%20Defence,commercial%20negotiations%20and%20ongoing%20performance.>>.</p></div><div data-bbox=)

HoA, Austal and the Commonwealth have committed to working towards concluding the formal SSA by the last quarter of 2024.²²⁷

- 6.18 Under the SSA ‘there is an initial commitment of \$2 billion to provide continuous shipbuilding.’²²⁸
- 6.19 The Commonwealth Government has assigned the following programmes for construction at Henderson as part of a pilot program under the SSA HoA:
- Army Landing Craft Medium and Heavy
 - Eight General Purpose Frigates
 - Six Large Optionally Crewed Surface Vessels
 - Continuation of Austal’s Evolved Cape-Class Patrol Boat programme.²²⁹

Army landing craft medium and landing craft heavy

- 6.20 The 2023 Defence Strategic Review set a defence agenda for Australia which includes continuous naval shipbuilding in WA, and a transformation of the Australian Army into a force focused on littoral manoeuvre and long-range strike capability. To enable littoral manoeuvre (see Box 6.7), landing craft for the Australian Army is required. The Commonwealth Government has approved the first stage of the project to build 26 landing craft for the Australian Army:
- 18 landing craft medium (approximately 500 tonnes)
 - eight landing craft heavy (3,000 to 5,000 tonnes).²³⁰
- 6.21 Stage 1, landing craft medium, is a \$2 billion project²³¹ to be built in Henderson, using a Birdon design.²³² This is the first stage of continuous naval shipbuilding for WA, beginning

227 Austal, *Heads of Agreement and Pilot Program for Strategic Shipbuilding Agreement with Commonwealth for Shipbuilding in Western Australia*, 23 November 2023, accessed 11 November 2024, <<https://www.austal.com/news/heads-agreement-and-pilot-program-strategic-shipbuilding-agreement-commonwealth-shipbuilding>>.

228 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 8.

229 Austal, *Austal Welcomes the Findings of the Surface Fleet Review*, 21 February 2024, accessed 11 November 2024, <<https://www.austal.com/news/austal-welcomes-findings-surface-fleet-review>>.

230 Australian Government/Defence, *Press Conference, Henderson Shipyard*, 23 July 2024, accessed 11 November 2024, <<https://www.minister.defence.gov.au/transcripts/2024-07-23/press-conference-henderson-shipyard>>.

231 Land Forces: International Land Defence Exposition, *Defence Announces Accelerated Build of 18 New Landing Craft Medium*, 31 July 2024, accessed 1 November 2024, <<https://landforces.com.au/media/news-article/defence-announces-accelerated-build-of-18-new-landing-craft->>>.

232 Australia’s Birdon Group Pty Ltd has been selected as the preferred designer for the Landing Craft Medium capability. The Commonwealth will work with Birdon to undertake further design maturation to prepare the Landing Craft Medium design, for the construction of 18 vessels at Henderson. See Government of Western Australia, *Heads of Agreement (HoA) signed between Austal and the Commonwealth Government*, 23 November 2022, accessed 11 November 2024, <<https://www.wa.gov.au/government/announcements/heads-of-agreement-hoa-signed-between-austal-and-the-commonwealth-government#:~:text=Austal%20are%20a%20WA%20Defence,commercial%20negotiations%20and%20o ngoing%20performance.>>>.

with landing craft medium and then transitioning into landing craft heavy.²³³ Reportedly, the project is ‘being accelerated’²³⁴ and once agreed to, will introduce a new build program for Austal at Henderson.²³⁵

Box 6.7: Littoral manoeuvre

Littoral manoeuvre refers to the use of the littoral (the areas seaward and inland of the coast which are susceptible to influence or support) to achieve control of the maritime domain from the land, as well as projecting and sustaining force ashore.

The Commonwealth Government’s Littoral Manoeuvre Programme was established in response to the Defence Strategic Review and aims to improve the Australian Army’s ability to deploy and sustain combat units in the Indo-Pacific region.

Under this Programme, landing craft medium will be capable of sailing 500 nautical miles with one Abrams tank (or one Redback infantry fighting vehicle, or four HIMARS launchers), and landing craft heavy will be capable of sailing 2,500 nautical miles with six Abrams tanks (or 11 Redback infantry fighting vehicles, or 26 HIMARS launchers).

Source: Australian Army Research Centre, ‘What is Littoral Manoeuvre? – Part 1’, 24 August 2023, accessed 21 November 2024, <<https://researchcentre.army.gov.au/library/land-power-forum/what-littoral-manoevr-part-1>>. Australian Government: Department of Defence, ‘New skills shore up capability’, 12 January 2024, accessed 21 November 2024, <<https://www.defence.gov.au/news-events/news/2024-01-12/new-skills-shore-capability#:~:text=The%20Littoral%20Manoeuvre%20Program%2C%20established,new%20fleet%20of%20littoral%20vessels.>>>.

General Purpose Frigates

6.22 Following the construction of the landing craft, the Commonwealth Government will invest \$7 to \$10 billion²³⁶ to build 11 General Purpose Frigates, eight of which are to be constructed at Henderson in WA (the first three will be built overseas).²³⁷

Large Optionally Crewed Surface Vessels

6.23 Arising from the Commonwealth Government’s *Naval Surface Combatant Fleet Review*, six new Large Optionally Crewed Surface Vessels (LOSVs) are to be constructed at Henderson.²³⁸

233 Australian Government: Department of Defence, *Press Conference, Henderson Shipyard*, 23 July 2024, accessed 11 November 2024, <<https://www.minister.defence.gov.au/transcripts/2024-07-23/press-conference-henderson-shipyard>>.

234 Jessica Page, ‘Henderson in ‘valley of death’ fears: Trump win spooks shipyards’, *The West Australian*, 9 November 2024, p 19.

235 Austal, *Heads of Agreement and Pilot Program for Strategic Shipbuilding Agreement with Commonwealth for Shipbuilding in Western Australia*, 23 November 2023, accessed 11 November 2024, <<https://www.austal.com/news/heads-agreement-and-pilot-program-strategic-shipbuilding-agreement-commonwealth-shipbuilding>>.

236 Australian Government: Department of Defence, *Integrated Investment Program*, 2024, p. 36.

237 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 4.

238 Australian Government/Defence, *Press Conference, Henderson Shipyard*, 23 July 2024, accessed 11 November 2024, <<https://www.minister.defence.gov.au/transcripts/2024-07-23/press-conference-henderson-shipyard>>.

Austal's Evolved Cape-Class Patrol Boat programme

- 6.24 At the same time the HoA was announced, it was also announced that Austal had been commissioned by the Commonwealth to build two Evolved Cape Class Patrol Boats at a cost of \$157.1 million.²³⁹
- 6.25 In June 2024 Austal announced that the Commonwealth Government had ordered two Guardian Class Patrol Boats valued at approximately \$39 million to be constructed at Henderson in WA.²⁴⁰

Upgrades to RAAF Learmonth, Exmouth

- 6.26 Defence West advised that there is 'about \$600 million going into the north west at various locations' in addition to the funding for the upgrades to HMAS *Stirling* and the Henderson redevelopment.²⁴¹
- 6.27 Exmouth is a potential expansion zone for defence activity and there are upgrades occurring at Learmonth air base which will have implications for the local community. For example, land supply in Exmouth is challenging and this development potentially means 'more land coming on board for Exmouth in the near future.'²⁴² DevelopmentWA advised that it had sold a block of land 'to Celsius developments and one of their partners' with capacity for around 140 residential lots. Some of this land could also be use by defence-related industries.²⁴³

Summary of opportunities

Naval sustainment and servicing allied vessels

- 6.28 With the upcoming AUKUS-related and other defence projects in WA, there will be opportunities to maintain and service naval vessels, particularly submarines. AUKUS presents significant, long-term opportunities to support nuclear-powered, conventionally-armed submarines and surface ship sustainment.²⁴⁴
- 6.29 The first ten years of AUKUS will see the location of SRF-West at HMAS *Stirling*, with US Virginia-Class and UK Astute-Class nuclear submarines rotating through Perth. This will require significant infrastructure preparation, workforce capability, and a modernisation of the regulatory environment. By 2032, Australia aims to purchase its own Virginia-Class submarines, also based at HMAS *Stirling*. In the long term, the sustainment and basing of

239 Austal, *Australian Government Orders an Additional Two Guardian-Class Patrol Boats for Pacific Maritime Security Program*, accessed 11 November 2024, <<https://www.austal.com/news/australian-government-orders-additional-two-guardian-class-patrol-boats-pacific-maritime>>.

240 *ibid.*

241 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 8.

242 Dean Mudford, Chief Executive Officer, DevelopmentWA, *Transcript of Evidence*, 30 September 2024, p. 4.

243 *ibid.*

244 Andrew Davis, Executive Director, Strategic Growth, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 3.

AUKUS submarines is likely to be conducted in WA due to its strategic location.²⁴⁵ There is an urgent need to upskill a workforce to maintain and build nuclear submarines which presents a significant opportunity for workforce development in WA.²⁴⁶

- 6.30 There is a possibility that WA could also become a service hub in the Indian Ocean for allied vessels, especially for the UK and US, due to its existing capabilities and the increasing demand for maintenance and support in the region.²⁴⁷

Jobs opportunities

- 6.31 The expansion of the defence industry in WA is expected to create thousands of new jobs, both directly and indirectly. These jobs will potentially span various sectors, including construction, manufacturing, and support services.
- 6.32 The Committee has heard that approximately 6,500 jobs could be created by defence maritime infrastructure upgrades alone in WA (3,000 at Henderson, 3,000 at HMAS *Stirling* and 500 additional jobs derived from submarine sustainment activities).
- 6.33 There will be a number of jobs in the construction sector as a result of maritime infrastructure investment, and there will be flow-on work from the growth in and around the AMC at Henderson. Defence West advised that up to 10,000 new jobs, direct and indirect, could be generated by the increased defence activity in and around Henderson and at HMAS *Stirling*.²⁴⁸
- 6.34 Additionally, the defence industry's increasingly high-quality skills requirements will necessitate significant upskilling within the defence workforce, which could lead to economic benefits for WA, as upskilled workers are capable of working in multiple sectors.²⁴⁹
- 6.35 The Committee also heard that there are opportunities to create jobs and career pathways within the defence sector for Aboriginal and Torres Strait Islander people, particularly in the north-west, where their local knowledge and affinity with the land can contribute significantly to local defence initiatives.²⁵⁰

245 Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, p. 4.

246 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, pp. 4-5.

247 Andrew Davis, Executive Director, Strategic Growth, Babcock International Group, *Transcript of Evidence*, 11 October 2024, pp. 12-13.

248 Peta Arbuckle, Executive Director, Defence West, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 9; Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, pp. 2-3.

249 Alex Walsh, Chief Nuclear and Capability Officer, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, p. 9; Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 3.

250 Matthew Niikkula, Chairperson, North West Defence Alliance, *Transcript of Evidence*, 1 November 2024, p. 7; Nicole Spencer, Acting Deputy Commissioner Strategy and Capability, Australian Border Force, *Transcript of Evidence*, 6 November 2024, p. 6.

Supporting growth in regional areas through increased defence activity

- 6.36 There is potential for an increase in defence activity in regional areas of the State, particularly the north west, to benefit local communities.
- 6.37 This activity presents an opportunity for economic diversification and job creation in regional areas traditionally reliant on industries like mining and tourism. The North West Defence Alliance sees defence investment as a key driver of sustainable economic growth and stability for communities located in relatively remote areas of WA.²⁵¹
- 6.38 As the ADF expands its presence in regional areas, there will be a need for significant investment in infrastructure. This includes upgrades to existing military bases like RAAF Base Learmonth and Curtin Air Base, as well as the potential development of new facilities and infrastructure to support SRF-West. These projects could create construction jobs and stimulate local economies.²⁵²
- 6.39 JTSI has recently published an audit of existing Defence infrastructure across WA to identify opportunities for consideration of additional civilian infrastructure which align with the objectives of a State-wide Defence Infrastructure Strategy. This analysis recognized 33 principal opportunities across over 400 sites in WA.²⁵³
- 6.40 An increased ADF presence would lead to growing demand for local goods and services. This includes everything from accommodation and hospitality to transportation, catering, and maintenance services. The ABF, for example, relies heavily on local businesses for support services, creating opportunities for regional SMEs.²⁵⁴
- 6.41 However, realising these opportunities will require addressing housing and infrastructure constraints, as well as adequate communication as to what Defence is planning.²⁵⁵

... we want to, as local governments, make sure that we are in the best possible place to welcome and enable Defence investment when it comes.

- Matthew Niikkula, Chair, North West Defence Alliance

251 Matthew Niikkula, Chairperson, North West Defence Alliance, *Transcript of Evidence*, 1 November 2024, pp. 3-4.

252 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 5; Matthew Niikkula, Chair, North West Defence Alliance, *Transcript of Evidence*, 1 November 2024, pp. 2-3.

253 Peta Arbuckle, Executive Director, Defence West, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 5.

254 Nicole Spencer, Acting Deputy Commissioner, Strategy and Capability, Australian Border Force, *Transcript of Evidence*, 6 November 2024, p. 3.

255 Matthew Niikkula, Chairperson, North West Defence Alliance, *Transcript of Evidence*, 1 November 2024, p. 2, and p. 6.

Leveraging existing non-defence capabilities and expertise

6.42 There are a range of capabilities already within the WA industrial base which could be leveraged into defence supply chains. WA, with its strong resource sector, has a proven track record in managing large-scale, high-risk and high-cost infrastructure projects. There is opportunity for this expertise to be adapted to the defence sector, particularly in areas like design and construction.²⁵⁶ The Committee heard that senior foreign military personnel are often surprised by WA's capacity for heavy industrial activity.²⁵⁷

6.43 Professor Gordon Flake from the Perth USAsia Centre noted that Perth has a higher rate of engineers per capita than anywhere else in the world, although this skill is not always extrapolated to the defence sector.²⁵⁸

6.44 Similarly, the Henderson Alliance suggested that if Defence requires cutting-edge technologies, they should 'look in their backyard first.'²⁵⁹ WA's resource and energy sectors have fostered innovation and the development of advanced technologies, particularly in areas such as autonomous systems and remote operations, which can be adapted to defence domain.²⁶⁰

Exporting defence capabilities

6.45 It is widely recognised that Australia cannot sustain a local defence industry by providing military goods and services only to the ADF.²⁶¹ Therefore, being able to export goods or services intended for defence or national security end-use can enable businesses operating in the defence industry to maintain capability and remain in business.

6.46 This is particularly true in WA. Babcock explained to the Committee that given the number of Defence projects which will be undertaken over the next 10, 20 or 30 years, it is crucial to be building industrial capacity. Babcock and other defence primes (such as Huntington Ingalls Industries) are working to facilitate export opportunities for local industries as part of the Australian Global Supply Chain Program. According to the Commonwealth Government, the

... if you just go up and down the Henderson strip or go around the Perth Airport and you just look at all those sheds upon sheds upon sheds who are constantly engineering, engineering, engineering. They do it for a different sector, but the core capabilities—the machining capabilities—are the same. ... We actually have a really strong industrial base here.

- Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre

256 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 11.

257 *ibid.*

258 Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, p. 9.

259 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 6.

260 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 11.

261 Parliament of Australia, *Defence export strategy and regulation*, 25 January 2024, accessed 4 September 2024, <https://www.aph.gov.au/About_Parliament/Parliamentary_departments/Parliamentary_Library/Research/FlagPost/2024/January/Defence-exports>.

number of major defence primes participating in this programme will almost double from seven to 13 following announcements about greater support for the initiative, which had as of July 2024 delivered 2,450 contracts worth over \$1.9 billion to 258 Australian suppliers.²⁶²

- 6.47 Accessing export markets could assist SMEs to weather the ‘peaks and troughs’ which are inherent in the WA defence industry. According to Babcock, export markets will prevent local SMEs from having to diversify into a completely different sector when Defence work is in a ‘trough.’ Babcock’s UK supply chains, for example—surface fleet sustainment and their nuclear supply chain for the sustainment of nuclear submarines—present opportunities for WA suppliers.²⁶³
- 6.48 The Henderson Alliance noted that recent announcements about infrastructure development and naval sustainment do not translate into work for local businesses in the short-term. Their view is that until the construction of the General-Purpose Frigates begins, there is no great opportunity for local business. The opportunities which exist are expected in the medium-term, not the short-term. In the short- to medium-term, the Henderson Alliance sees an opportunity in enabling businesses to ramp up capability to export.²⁶⁴
- 6.49 The Henderson Alliance has engaged in discussions with major shipbuilding primes in the UK and US to offer additional manufacturing support from WA to offset current delays in Australian Defence projects. According to Chairperson Rohan Green, this would also allow foreign primes to move away from sole sourcing procurement strategies while simultaneously increasing their capacity to service a large pipeline of defence contracts.²⁶⁵
- 6.50 This sentiment was supported by representatives from ASC, who noted that the requirement for a significant expansion in the overall submarine industrial base of AUKUS partners could provide export opportunities for businesses in WA.²⁶⁶ Similarly, supplying industrial capabilities to ASC in Perth could allow local companies to compete more effectively in international markets.²⁶⁷ On the matter of constructing Virginia-Class submarines, ASC’s Chief Nuclear and Capability Officer explained:

...some of our American partners are coming over to Australia and sending over supply-quality engineering capability, which ASC will be shadowing initially, which will be starting to work on some pilot projects with some key suppliers to look at how we uplift them to the capability that is required and quality requirements et cetera so they understand what would need to be built, with the aim of being able to manufacture components for the Virginia-class submarines for America to start

262 The Hon Pat Conroy MP, Minister for Defence Industry and Capability Delivery and Minister for International Development and the Pacific, *Government ramps up international partnership opportunities for Australia industry*, media release, 24 July 2024.

263 Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 9.

264 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 11.

265 *ibid.*, p. 10.

266 Alex Walsh, Chief Nuclear and Capability Officer, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, pp. 7-8.

267 *ibid.*, p. 9.

off with...that will build capability in Australia which will be able to support the sustainment of the Virginia-class submarine...²⁶⁸

6.51 According to the Henderson Alliance, this will require 'Defence West being adequately resourced' and outcomes focused and aligned with industry and other stakeholders. It will be important to ramp up the number of companies being prequalified, including companies with export capability which currently operate in the resources sector.²⁶⁹

6.52 Caroline Kennedy, outgoing US ambassador to Australia, has warned that the process to enable local industry to enter the US supply chain is too slow:

Right now, America's defence industrial base is challenged. We cannot produce all the components needed to construct submarines [...] We need Australian companies to get into the Virginia-class vendor base. Currently, only a handful are going through the Defence Industry Vendor Qualification process, and we need more of you to do that.²⁷⁰

6.53 Defence West constraints and the importance of timing are discussed in Chapter 9.

Conclusion

6.54 Realising opportunities for defence industries in WA will require addressing challenges such as skills and workforce constraints, security clearances, and the lengthy procurement timeframes and workflow variability associated with the defence industry.

6.55 Having the necessary infrastructure in place is also critical. The Henderson waterfront is already challenged to meet current demands, requiring infrastructure upgrades and relocations to accommodate future growth and the new defence precinct.

6.56 The following sections discuss some of the key challenges identified by the Committee in its conversations with stakeholders.

268 *ibid.*, pp. 7-8.

269 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 10.

270 Andrew Tillett, 'AUKUS troubles transcend Trump', *Australian Financial Review*, 6 November 2024, p 38.

Chapter 7

Workforce challenges

One of the largest challenges we will face, not just here but really across the board in Australia, is access to that skilled workforce. Particularly with the announcement of AUKUS and some of the opportunities in the construction of the new general-purpose frigate in Australia and other projects, we are recognising that a skilled workforce and upskilling the workforce is going to be critical.

Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group²⁷¹

Modelling the workforce

- 7.1 At the time of writing, workforce modelling is in progress.²⁷² The Committee was informed by ASC that it is collaborating with DoD to develop a workforce plan which will delineate the processes, systems and labour capacity that will be required by its upcoming operations in WA.²⁷³
- 7.2 DTWD's WADIWO²⁷⁴ has thus far enabled agencies to access valuable insights about the skills, job classifications and workforce capabilities that shipbuilding, sustainment, infrastructure and AUKUS programmes will demand in WA.²⁷⁵ This ongoing workforce modelling is being conducted with assistance from DoD and the Australian Submarine Agency (ASA).²⁷⁶
- 7.3 Currently, DTWD uses internal and external data to assess gaps in the workforce and develop strategies. In addition to DoD and ASA, WADIWO uses data from JTSI and Defence West. The ABS data which is used is 'experimental' because ABS 'industry classification does not properly quantify the defence industry.'²⁷⁷

271 Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 4.

272 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, pp. 2-3.

273 Paul Gay, Chief Operating Officer, Multi-Class Sustainment, ASC Pty Ltd, *Transcript of Evidence*, Friday 1 November 2024, p. 5.

274 Department of Training and Workforce Development, *Western Australian Defence Industry Workforce Office*, 26 April 2024, accessed 5 November 2024, <<https://www.wa.gov.au/service/business-support/industry-development/western-australian-defence-industry-workforce-office>>.

275 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 6.

276 Peta Arbuckle, Executive Director, Defence West, *Transcript of Evidence*, 23 October 2024, p. 6; Karen Ho, Director General, Department of Training and Workforce Development, *Letter*, 13 November 2024, p. 2.

277 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October, p. 2.

7.4 DTWD advised that valuable data on workforce projections from the Commonwealth Government and strategic industry partners is sometimes ‘sensitive and hard to get.’²⁷⁸ However the sharing of this data, according to Defence West, has been ‘a real leap forward,’ in that it has provided visibility around the specific job roles required out to 2050 so that workforce plans can be developed.²⁷⁹

7.5 When asked about the additional support that would be required to facilitate workforce modelling, an increased availability of data was identified as an important prerequisite to planning for increased defence activity.²⁸⁰

Current workforce estimates

7.6 Following the release of the Commonwealth Government’s Surface Combatant Review in February 2024,²⁸¹ DTWD estimated that WA’s defence workforce would need to expand by approximately 2,500 to service Defence shipbuilding programmes.²⁸²

7.7 However, subsequent announcements about the establishment of a consolidated Commonwealth-owned defence precinct at the Henderson shipyard and submarine

maintenance at HMAS *Stirling*²⁸³ have prompted DTWD to revise its original estimates to a prospective workforce of 10,000.²⁸⁴ From the State’s current defence workforce of approximately 3,000,²⁸⁵ this would require an expansion of over 230 per cent.

But today’s announcement ... doubles that again to take us into the realm of a megaproject. So the figures quoted in the paper today are 10 000 jobs, and they are in construction, importantly; shipbuilding; submarine maintenance; and there will be a large number of those at HMAS Stirling. Some of them will be defence jobs, and some of them will be civil.

- Karen Ho, Director General, Department of Training and Workforce Development

278 *ibid.*, p. 5.

279 Peta Arbuckle, Executive Director, Defence West, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 6.

280 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 6.

281 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence and the Hon Pat Conroy MP, Minister for Defence Industry and Capability Delivery and Minister for International Development and the Pacific, *Navy’s enhanced lethality surface combatant fleet*, media release, 20 February 2024.

282 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 2.

283 The Hon Anthony Albanese MP, Prime Minister and the Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *New Defence Precinct at Henderson to deliver continuous naval shipbuilding and nuclear-powered submarine maintenance*, media release, 16 October 2024.

284 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, pp. 2-3.

285 Australian Bureau of Statistics, *Australian defence industry data cube: Australian defence industry direct employment headcount by State / Territory*, 27 March 2024, accessed 2 September 2024, <<https://www.abs.gov.au/statistics/economy/national-accounts/australian-defence-industry-account-experimental-estimates/latest-release>>.

7.8 When the Committee questioned representatives from ASC, the Commonwealth Government's submarine sovereign build and sustainment partner, it was informed that depot-level maintenance alone would require the organisation to recruit 200 employees annually in WA over the next 13 years.²⁸⁶

I think the skills we do not have in Western Australia that we cannot already readily draw on are the nuclear-specific skills.

*- Karen Ho, Director General,
Department of Training and Workforce
Development*

7.9 Babcock informed the Committee that while the total enterprise for maintaining submarines would be in the thousands, the number it would require for the provision of advanced technical support for this project would be 'in the hundreds.'²⁸⁷

7.10 The General Manager, Strategic Shipbuilding, at Austal explained that while he believes the current workforce is 'appropriately sized' to deliver the landing craft medium project, the upcoming pipeline of shipbuilding work in WA would require 'a huge uplift and scale' in addition to capacity.²⁸⁸

The challenge of workforce preparation

A nuclear skills gap

7.11 US Virginia-Class and UK Astute-Class submarines, which will undergo maintenance at HMAS *Stirling* as part of SRF-West from 2027, are propelled by nuclear reactors that will require intermittent servicing in WA.

... If you look at the nuclear workforce as a pie ... Australia is starting at a very low base of a couple of per cent. We are not going to be able to full Australia's third of that pie by kind of smearing it and poaching globally.

*- Bradley Vermeer, Senior Manager, External
Affairs, Babcock International Group*

7.12 According to DTWD, this initiative will inevitably demand relatively specific skills including nuclear awareness, safety and mindset that are currently scarce in WA.²⁸⁹ Based on the current model of maintenance work on Australia's Collins-Class submarines, it may also be likely that a large proportion of this workforce could be required to hold tertiary qualifications.²⁹⁰ According to Austal, approximately 40 per cent of its future workforce will be required to hold tertiary qualifications.²⁹¹

286 Alex Walsh, Chief Nuclear and Capability Officer, ASC Pty Ltd, *Transcript of Evidence*, Friday 1 November 2024, p. 5.

287 Andrew Davis, Executive Director, Strategic Growth, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 4.

288 Gavin Stewart, General Manager, Strategic Shipbuilding, Austal, *Transcript of Evidence*, 13 November 2024, p. 2.

289 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 4.

290 Alex Walsh, Chief Nuclear and Capability Officer, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, p. 7.

291 Ben Wardle, Head of Operations Strategy, Austal, *Transcript of Evidence*, 13 November 2024, p. 4.

- 7.13 Compensating for this skills gap in just a matter of years before the commencement of SRF-West is a complex challenge and was addressed in evidence by several witnesses.
- 7.14 Although WA has habitually relied on skilled immigration to resolve skills shortages in adjacent industries such as advanced manufacturing, the Committee was informed that this is not a viable option for the maintenance of nuclear-powered submarines in Perth. Both the UK and US already possess large civil nuclear industries. However, they have experienced significant issues in constructing their own nuclear power plants given the global scarcity of nuclear expertise.²⁹² The ‘poaching’ of such expertise from either country is therefore a particularly sensitive issue with Australia’s AUKUS partners.²⁹³
- 7.15 DTWD informed the Committee that although immigration could help to fill certain skills gaps, the development of a sovereign workforce in WA will be essential for critical occupations within the defence industry.²⁹⁴

Security clearances

- 7.16 Given that WA’s prospective workforce will also need to possess a high level of security clearance to participate in the maintenance of nuclear submarines,²⁹⁵ the development of a sovereign nuclear workforce in WA has been identified a priority for AUKUS stakeholders.²⁹⁶
- 7.17 The Director General of DTWD explained that workforce involved in submarine maintenance may need to be confined to the employment of Australian, UK and US citizens.²⁹⁷ Similarly, Alex Walsh of ASC explained that the company would ‘need to be careful’ about the nationalities that it could employ given the nature of the defence sector.²⁹⁸

292 Alex Walsh, Chief Nuclear and Capability Officer, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, p. 6.

293 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 5; Andrew Davis, Executive Director, Strategic Growth, and Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 5.

294 Karen Ho, Director General, Department of Training and Workforce Development, *Letter*, 13 November 2024, p. 2.

295 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 3; Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, p. 8; Alex Walsh, Chief Nuclear and Capability Officer, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, p. 5.

296 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 3; Karen Ho, Director General, Department of Training and Workforce Development, *Letter*, 13 November 2024, p. 2.

297 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 3.

298 Alex Walsh, Chief Nuclear and Capability Officer, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, p. 5.

Training a nuclear workforce

7.18 DTWD informed the Committee that several programmes are already in place to train a nuclear workforce. State Government visits to the UK and US (to major universities and defence primes including Babcock, BAE, Electric Boat and Huntington Ingalls) have provided DTWD access to information about the skills required for the maintenance of nuclear-powered submarines. These and other activities are part of the development of a nuclear skills framework at South Metropolitan TAFE,²⁹⁹ which has previously coordinated an 18-month traineeship programme for young people with defence industry contractors, primes and subcontractors.³⁰⁰

7.19 The ASA is currently funding lecturers from South Metropolitan TAFE to visit nuclear environments in the US as part of a 'train-the-trainer' strategy.³⁰¹ Representatives from ASC explained that this is particularly critical because it would be unviable over the longer term to continue sending personnel to Pearl Harbor to garner nuclear expertise. They emphasised the importance of constructing local facilities in WA to simulate nuclear shipyard culture and deliver platform-specific training to employees.³⁰²

... you want to work with the same type of culture. It is not just that the welder goes in to work in something that looks like a submarine; they need to work within a system with the same project management practices, processes and supervision so that it feels like and has the same culture that we need in the shipyard.

- Alex Walsh, Chief Nuclear and Capability Officer, ASC

7.20 Apprentices will also be offered international placements with companies such as Rolls-Royce in the UK to further develop a sovereign workforce in WA.³⁰³

7.21 The Commonwealth Government will invest \$128 million to support 4,000 Commonwealth supported university places between 2024 to 2027 to develop a pipeline of highly skilled science, technology, engineering and mathematics (STEM) graduates who will strengthen Australia's sovereign capabilities and support nuclear-powered submarine programme initiatives.³⁰⁴ As part of this programme, Curtin University has been allocated 320 places, the University of Western Australia has been allocated 56 places, and Murdoch University will receive 50 places.³⁰⁵

299 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 4.

300 *ibid.*, p. 7.

301 *ibid.*

302 Alex Walsh, Chief Nuclear and Capability Officer, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, pp. 4-5.

303 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 7.

304 Australian Government: Department of Education and Australian Government: Australian Submarine Agency, *Program Guidelines: Nuclear-Powered Submarine Student Pathways*, August 2023, p. 1.

305 Australian Government: Department of Education, *Nuclear-Powered Submarine Student Pathways*, accessed 30 August 2024, <<https://www.education.gov.au/higher-education-funding/commonwealth-grant-scheme-cgs/nuclearpowered-submarine-student-pathways>>.

Regulatory challenges

- 7.22 Australia is the only country in the Group of 20 (G20) to have a legislative ban on nuclear power.³⁰⁶ Legislative reform is currently being enacted to enable future defence industries.
- 7.23 The Committee heard that uncertainty pertaining to Australia’s regulatory framework for nuclear-powered submarines (which is still in development),³⁰⁷ and additional variations in current US and UK nuclear regulation, is impacting the ability of organisations to plan for local workforce training.
- 7.24 It is still unclear which organisation will accredit businesses for submarine maintenance work in WA.³⁰⁸ The licensing requirements for companies and employees to operate in a fundamentally novel nuclear-powered submarine maintenance environment are also not yet clear.³⁰⁹
- 7.25 Representatives from ASC noted that the introduction of a new regulatory framework will inevitably require the organisation to adapt its management systems and operational processes.³¹⁰
- 7.26 Additionally, the simultaneous servicing of submarines from two different jurisdictions (the US and the UK), which have separate regulatory and operational models for the maintenance of these vessels, will pose a challenge for local defence industry businesses.³¹¹
- 7.27 According to Sarah Tartakowski, Head of Supply Chain at Babcock, the possibility that companies may need to hold multiple regulatory accreditations to service foreign naval vessels could make the entrance of SMEs into WA’s defence industry supply chain particularly cumbersome.³¹²
- 7.28 Caroline Kennedy, outgoing US ambassador to Australia, has warned that governments needed to move quickly—with the US nuclear submarines set to begin operating out of

... we need to make sure that we are not jumping the gun; we are not starting to train people, providing them with skills which might not necessarily be accepted by a future regulator or a future accreditor.

- Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group

306 Alan Finkel, 'Here’s why there is no nuclear option for Australia to reach net zero', *The Guardian* (web-based), 22 March 2024, accessed 8 November 2024, <<https://www.theguardian.com/commentisfree/2024/mar/22/heres-why-there-is-no-nuclear-option-for-australia-to-reach-net-zero#:~:text=Legislation.,before%20anything%20else%20could%20happen.>>.

307 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 4.

308 Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 6.

309 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 4.

310 Alex Walsh, Chief Nuclear and Capability Officer, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, pp. 3-4.

311 Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 12.

312 Sarah Tartakowski, Head of Supply Chain, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 7.

Perth within three years—suggesting cutting ‘red tape’ and creating an ‘AUKUS visa’ to allow the necessary ‘workers to travel seamlessly between Australia, the US and the UK.’³¹³

Competing with the resources sector

- 7.29 Although the State’s resources sector is in many ways complementary to (rather than in competition with) its nascent defence industry,³¹⁴ a key challenge in growing the defence industry workforce in WA will be the attraction and retention of labour that might otherwise take up employment opportunities in the resources sector.
- 7.30 Several industries, including defence, are currently struggling to compete with the resources sector for skilled labour on account of its relatively higher wage offering.³¹⁵ For this reason, and because the resources sector currently offers a steadier stream of business opportunity, SMEs have reported ‘losing their people.’³¹⁶
- 7.31 Furthermore, Rohan Green, Chair of the Henderson Alliance, which represents over 200 businesses in the defence industry, explained that there are entire companies ‘opting to leave or go back to mining and oil and gas’ due to a current scarcity of contracts for defence work.³¹⁷
- 7.32 According to Austal, a post-COVID-19 defence industry downturn saw its attrition rates exceed historical averages by double, with employees opting to transition into sectors such as resources, manufacturing and construction.³¹⁸

Promoting careers in the defence industry

- 7.33 A more proactive and coordinated effort to promote the benefits of the defence industry to WA’s existing workforce is required. Emphasising the advantage of the work-life balance in the defence industry compared to the fly-in, fly-out (FIFO) model of resources sector employment could help attract and retain workers:

... it is difficult for us to compete with what you can earn in the resources sector. I guess what you would call our employee value proposition would be the fact that you can be home every night with your family, which is not something that is available in a FIFO working environment.³¹⁹

313 Andrew Tillett, ‘AUKUS troubles transcend Trump’, *Australian Financial Review*, 6 November 2024, p 38.

314 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 9; Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 11; Peta Arbuckle, Executive Director, Defence West, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 12.

315 Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 4.

316 Sarah Tartakowski, Head of Supply Chain, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 7.

317 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 5.

318 Ben Wardle, Head of Operations Strategy, Austal, *Transcript of Evidence*, 13 November 2024, p. 4.

319 Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 4.

7.34 Karen Ho, Director General at DTWD, noted that the Henderson precinct would offer the prospective defence industry workforce the benefit of employment in proximity to Perth and the opportunity to pursue relatively unique career opportunities outside of the resources sector.³²⁰

We have really got to change the narrative so that it says, “Actually the Defence industry is a great place to work; you can have a career in this for 40 years if you want to; you can have a career for 10 years and then go and do something else.”

- Andrew Davis, Executive Director, Strategic Growth, Babcock International Group

7.35 A more significant advantage is that defence industry employment may offer greater security than the resources sector, which has previously been subject to volatile boom-and-bust cycles.³²¹

7.36 Matthew Niikkula, Chair of the North West Defence Alliance, noted that the defence industry can be relatively ‘recession-proof’ once it is established.³²²

Early outreach and engagement

7.37 Witnesses giving evidence to the Committee explained that early engagement with students in WA’s education system will be necessary to build a workforce capable of meeting the State’s defence industry requirements.

7.38 The Committee heard that resources career pathways currently dominate noticeboards in schools, and there are numerous ‘leak points’ at which prospective defence industry recruits are attracted into alternative sectors.³²³

7.39 For this reason, the DTWD ‘The Other Force’ campaign has been established to attract young people into the State’s defence industry,³²⁴ and the Rockingham Jobs and Skills Centre has conducted outreach programmes in schools to provide career information and guidance about education and training pathways.³²⁵ According to Jodie Wallace, Executive Director, Policy Planning and Innovation at DTWD, a Year 9 career taster programme has also been operational since 2022, which provides access to early career information and participation in practical industry experiences to facilitate an understanding of defence industry career options.³²⁶

320 Karen Ho, Director General, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 9.

321 *ibid.*

322 Matthew Niikkula, Chair, North West Defence Alliance, *Transcript of Evidence*, 1 November 2024, p. 3.

323 Andrew Davis, Executive Director, Strategic Growth, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 6.

324 Department of Training and Workforce Development, *WA’s Defence Industry – The Other Force*, accessed 11 November 2024, <<https://theotherforce.wa.gov.au/>>.

325 Jodie Wallace, Executive Director, Policy Planning and Innovation, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 6.

326 *ibid.*

Chapter 8

Supporting SMEs

As a defence prime, we look at the next 10, 20 or 30 years, but as an SME, you are looking at the here and now. You are looking at the next one, two or three years ... we just have to figure out during this challenging period in between now and the bonanza how we can keep these SMEs in the game.

Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group

Challenges experienced by defence industry SMEs

- 8.1 SMEs operating in the defence industry in WA face a unique set of challenges. These challenges could hinder their ability to maximise the opportunities discussed elsewhere in this paper.
- 8.2 Addressing these challenges will require a collaborative effort from both government and defence primes working with these SMEs. This includes providing, as far as possible, a more predictable pipeline of work, supporting workforce development initiatives, streamlining Defence procurement processes, improving access to information, and ensuring that infrastructure development plans consider the needs of SMEs.

An inconsistency of business opportunity

- 8.3 The Commonwealth Government's DIDS notes that although most defence industry SMEs are more innovative and agile than larger businesses, they are disproportionately affected by supply chain shortages and face barriers to growth including access to skilled labour and finance.³²⁷

To attract businesses to actually venture out and use their capabilities in the defence industry, they need regular and consistent work and opportunities. The reality is that that simply has not been there.

- 8.4 Perhaps the largest challenge experienced by SMEs in WA, however, is the inconsistency of defence-related business opportunities. This was recognised by the DIDS, which notes that inconsistent demand from Defence and the 'resulting peaks and troughs in workload' is a particularly acute challenge for businesses providing specialised defence products and services where adjacent markets do not exist or are not easily accessed.³²⁸

- Rohan Green, Chairperson, Henderson Alliance

- 8.5 This was echoed by several participants during the Committee's investigation. Providing evidence before the Committee, Chairperson of the Henderson Alliance Rohan Green explained that the cyclical nature of Defence contracts habitually creates periods of intense

327 Australian Government: Department of Defence, *Defence Industry Development Strategy*, 2024, p. 11.

328 *ibid.*, p. 25.

activity and inactivity in WA's defence industry. During these latter periods, the result is that SMEs often experience financial stress and transition into the resources sector due to a lack of available Defence work.³²⁹

- 8.6 It is then extremely difficult for the remaining SMEs to service large Defence contracts when they eventually begin to 'ramp up' because they have not had the opportunity to engage in sustained business over the longer term.³³⁰
- 8.7 Sarah Tartakowski, Head of Supply Chain at Babcock, explained that this 'ebb and flow' of Defence work is currently causing the State to forfeit some of its defence industry capabilities, and that this now presents a significant risk to Babcock's supply chain registers.³³¹

'Between now and the bonanza'

- 8.8 The Committee heard that defence sector work is currently 'tightening' given that the sustainment of certain classes of maritime vessels is ending, which means that major defence primes like Babcock simply lack 'enough of the pie to share with all the SMEs' they engage.³³² Similarly, representatives from Austal explained that the local defence industry is 'definitely in a downturn.'³³³
- 8.9 Unlike major defence primes, which are better prepared to weather periods of reduced Defence spending, SMEs require a consistent flow of opportunities to scale their businesses and become competitive.³³⁴
- 8.10 The Henderson Alliance noted that a significant reduction in the current budget for maritime sustainment is already beginning to curtail business opportunities for SMEs in WA. This is primarily due to the decommissioning of multiple vessels including the Anzac Class frigate, which has 'shrunk the pool of work available for the service industry.'³³⁵ The Alliance Chairperson explained:

... sustainment has been cut back, obviously to Anzac being decommissioned. The reality is we are not going to have more vessels on the water for quite some time, so sustainment is not going to build up any time soon and shipbuilding is going to start to tail off at the back end of C1180. There is no new stuff other than, obviously, landing craft and a couple of E-Capes. There is no massive ramp-up opportunity there until the general-purpose frigates start. That is a medium-term opportunity, not short-term.³³⁶

329 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 5.

330 *ibid.*

331 Sarah Tartakowski, Head of Supply Chain, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 9.

332 *ibid.*

333 Ben Wardle, Head of Operations Strategy, Austal, *Transcript of Evidence*, 13 November 2024, p. 11.

334 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 9; Bradley Vermeer, Senior Manager, External Affairs, Babcock International Group, *Transcript of Evidence*, 11 October 2024, p. 9.

335 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 4.

336 *ibid.*, p. 11.

- 8.11 A key challenge in WA will therefore revolve around how SMEs will sustain themselves over the short to medium term until the operationalisation of SRF-West and the construction of the General-Purpose Frigates.³³⁷ As explained in Chapter 6, access to export markets may present an opportunity to mitigate the current scarcity of local defence work.

Project delays and cancellations

- 8.12 Delays, cancellations and a general lack of transparency around planning and future requirements are unfortunately not unusual for Defence projects. According to the Australian Financial Review, delays for major defence projects have now cumulatively ‘blown out’ to more than 37 years, with delays for Defence’s 20 biggest projects having increased in total from 405 months in 2020–2021 to 453 months in 2022–2023. The average delay for individual projects is now 25 months, and DoD has not disclosed dates for achieving final operational capability for eight of these 20 largest projects.³³⁸

Unfortunately, we suffer as a result in industry for no fault of our own ... things just keep moving and changing and moving and changing, and that has a significant impact down the food chain.

- Rohan Green, Chairperson, Henderson Alliance

- 8.13 Major Defence project delays or cancellations create significant uncertainty for SMEs in WA’s defence industry. According to the Henderson Alliance, major cancellations have included the SEA 1000 Future Submarine Programme (which was cancelled on 16 September 2021)³³⁹ and the SEA 1905 Mine Countermeasures and Military Survey project (which was cancelled on 17 April 2024). The Committee was informed that ‘quite a few’ WA companies were heavily involved in developing strategies with DoD for SEA 1000, and although the SEA 1905 went out for initial pricing, it has subsequently ‘disappeared off the radar.’³⁴⁰
- 8.14 Other projects, including SEA 5000 (the Hunter Class Frigate Programme) and SEA 1180 (the Offshore Patrol Vessel Programme), have also been subject to major changes and delays (see Box. 8.8). According to Rohan Green, delays in decision-making at the Commonwealth level for SEA 5000 forced major contractors to return to their existing supply chains rather than expand operations in WA.³⁴¹ Moreover, there is little indication as to whether the SEA 3000 General Purpose Frigate Programme will provide opportunities for SMEs in WA. The Land 8710 Littoral Manoeuvre Vessel Programme is also creating ongoing uncertainty for local businesses because no design has yet been selected for Landing Craft Heavy (LCH) vessels and local content mandates are unknown ‘at this point in time.’³⁴²

337 *ibid.*, p. 4 and p. 11.

338 Andrew Tillett, ‘Security risk from Defence project delays’, *Australian Financial Review*, 12 February 2024, p. 1.

339 The Hon Scott Morrison MP, Prime Minister and The Hon Peter Dutton MP, Minister for Defence, *Australia to pursue nuclear-powered submarines through new trilateral enhanced security partnership*, media release, 16 September 2021.

340 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 4.

341 *ibid.*, p. 3.

342 *ibid.*, p. 4.

Box 8.8: Examples of major project changes and delays affecting WA's defence industry SMEs

SEA 5000 (Hunter Class frigate Programme)

BAE's Global Combat Ship – Australia was selected as the design for the Hunter Class frigate programme on 29 June 2018, with the Commonwealth Government announcing the construction of nine vessels in three batches at Osborne shipyard in South Australia. According to the Australian National Audit Office (ANAO), contract expenditure to date has not been effective in delivering on project milestones, and the project is experiencing an 18-month delay and additional costs due in large part to design immaturity.

SEA 1180 (Offshore Patrol Vessel Programme)

In response to the DoD Surface Combatant Fleet Review, the Commonwealth Government announced on 20 February 2024 that it will reduce Luerssen Australia's contract from the production of 12 Arafura Class Offshore Patrol Vessels to six. Originally planned for commission in 2022, the project has experienced significant delays of two years in addition to changes to the main weapons system on the vessel.

Sources: Australian Government: Australian National Audit Office, 'Department of Defence's Procurement of Hunter Class Frigates', 10 May 2023, accessed 12 November 2024, <<https://www.anao.gov.au/work/performance-audit/departments-defences-procurement-hunter-class-frigates>>; Alex Luck, 'Australia's First Arafura-Class OPV Starts Sea Trials', *Naval News* (web-based), 3 September 2024, accessed 12 November 2024, <<https://www.navalnews.com/naval-news/2024/09/first-arafura-class-opv-starts-sea-trials/>>.

Local content

- 8.15 Some stakeholders told the Committee that major defence primes generally prefer to manufacture components and hardware using their established international supply chains rather than in local industry in WA. In addition, the Committee was told that prime contractors, whether in defence industries or the resources sector, are incentivised to manufacture critical parts which will likely require repairs in their primary manufacturing locations abroad, thus keeping contract opportunities outside WA.³⁴³
- 8.16 The result is that without local content requirements, local SMEs will likely be relegated to IKEA-type assembly activities rather than manufacturing critical components to service Defence contracts.³⁴⁴
- 8.17 Terry Gropp, a board member of the Henderson Alliance, suggested that one contributing factor to Australia's reliance on international suppliers is the lack of standardisation across naval platforms in the RAN. He says this has made it particularly challenging for local manufacturers to achieve the scale and efficiency required to compete with overseas companies that produce standardised components for larger naval fleets in far greater quantities.³⁴⁵
- 8.18 The Henderson Alliance perceives a risk where if a major international defence prime is chosen to construct the fourth SEA 3000 General Purpose Frigate in WA, they may choose to 'send everything off the shelf' rather than utilise local manufacturers.³⁴⁶ this reportedly

343 Closed evidence.

344 Closed evidence.

345 Terry Gropp, Board Member, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 10.

346 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 5.

occurred when local SMEs attempted to integrate into the manufacturing supply chain for the SEA 5000 Hunter Class frigates.³⁴⁷

- 8.19 The Henderson Alliance also expressed concern about the use of local service companies for future opportunities in relation to SRF-West:

SRF-West, which is the US nuclear submarines coming into Western Australia, is not necessarily going to have an impact or an opportunity for local service companies that supply into the naval surface fleet at the moment. That is going to be delivered by an in-house, government-owned agency, being ASC. Traditionally in Western Australia, they do not utilise local suppliers for service work, unless it is a capability that they do not currently have.³⁴⁸

- 8.20 Representatives from ASC similarly noted that ‘given the SRF-West is US led’, local industry may play ‘more of a support role’ until the arrival of Australia’s sovereign SSN fleet, at which point there ‘will be a whole development pathway for local industry’ business opportunity.³⁴⁹

- 8.21 When questioned by the Committee about local content for the contracts and agreements which are currently being negotiated with Defence, Austal advised that ‘there is a level of Australian industry content’ that is required as part of compliance with the Australian Industry Capability (AIC) plan and that conversations with the Henderson Alliance about this aspect are ongoing.³⁵⁰

Box 8.9: Local content policies

Local content policies (LCPs) establish requirements for where goods are assembled or manufactured, and for where materials are sourced to deliver contracts. They can also include services provided by local companies. Essentially, they ensure that a certain amount of production (labour, goods, technology and knowledge) are sourced locally.

These policies can be applied to foreign companies seeking to manufacture goods in a particular country and typically stipulate a minimum level of content that must be sourced locally from the country in question.

In Western Australia, the State Government’s Buy Local Policy is an example of this. Under this policy, government agencies and local governments are encouraged to maximise the participation of local and small business in the supply of goods, services and works. A range of initiatives and price preferences provide local businesses with enhanced bidding opportunities.

Source: Australasian Railway Association, *Fact Sheet: National Local Content Policy*, 2022, p. 1; Standing Committee on State Development, *Defence industry in New South Wales: Discussion paper*, Legislative Council of New South Wales, November 2017, p. 22; Department of Jobs, Tourism, Science and Innovation, ‘Western Australian Buy Local Policy 2022’, 7 September 2022, accessed 13 November 2024, <<https://www.wa.gov.au/government/document-collections/western-australian-buy-local-policy-2022>>.

- 8.22 Local content mandates (see Box 8.9) can potentially grow local defence industry capabilities in WA by mandating more defence work for local businesses. The Henderson Alliance acknowledged that it is unviable to introduce local content mandates for the entirety of

347 *ibid.*, p. 3.

348 *ibid.*, p. 4.

349 Paul Gay, Chief Operating Officer, Multi-Class Sustainment, ASC Pty Ltd, *Transcript of Evidence*, 1 November 2024, pp. 8-9.

350 Ben Wardle, Head of Operations Strategy, and Gavin Stewart, General Manager, Strategic Shipbuilding, Austal, *Transcript of Evidence*, 13 November 2024, p. 6.

maritime construction and sustainment work in WA, and that this could reduce the cost-effectiveness of some Defence programmes. However, in the past, State Government mandating of content from local zones had proven to be 'quite effective' in other sectors.³⁵¹

- 8.23 Although Henderson Alliance Chair Rohan Green noted that he had not yet seen a successful mandating of local content 'from a maritime platform perspective' in WA, Alliance board member Terry Gropp explained that the COVID-19 Pandemic demonstrated that local businesses are capable of servicing major shipbuilding programmes: this reportedly occurred during the construction of the Offshore Patrol Vessel by Luerssen Australia.³⁵² The Committee was told that other jurisdictions such as the US are currently far more proactive than Australia in mandating that procurement activities are conducted locally.³⁵³
- 8.24 In a recent response to the Commonwealth Government's DIDS, the Australian Industry and Defence Network (AIDN) petitioned that DoD procurement rules be modified to mandate a minimum design content to be undertaken in Australia, and that Defence work on SDIPs should be contracted to sovereign Australian entities.³⁵⁴
- 8.25 According to the Australian Strategic Policy Institute, both the Collins-Class submarines and Anzac-Class frigates mandated a level of Australian content at 60 and 70 per cent respectively, and both projects reportedly exceeded these figures.³⁵⁵

351 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 5.

352 Terry Gropp, Board Member, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 6.

353 Closed evidence.

354 Australian Industry & Defence Network, 'Open letter on AIDN Position on DIDS Implementation Issues and Recommended Defence Industry Policy', (web-based), 7 November 2024, accessed 11 November 2024, <<https://aidn.org.au/open-letter-on-aidn-position-on-dids-implementation-issues-and-recommended-defence-industry-policy/>>.

355 Peter Briggs, Australian Strategic Policy Institute, *Mandating Australian industry content for the AUKUS SSNs*, 24 August 2024, accessed 11 November 2024, <<https://www.aspistrategist.org.au/mandating-australian-industry-content-for-the-aukus-ssns/>>.

Chapter 9

Coordination and collaboration

My view is that there is appropriate coordination of what is known. I think the challenge for most people is trying to come to a landing on what is the final position so then you can start taking action on that. It is pretty hard to plan for a lot of things when you do not quite know what the outcome is going to be. Not that it is a concern, but I guess that watching brief for us is just trying to stay as close to the decision as possible so that we can then act on it when we know about it.

Dean Mudford, Chief Executive Officer, DevelopmentWA³⁵⁶

The State Government's role in growing the defence industry

- 9.1 To facilitate defence industry growth, the WA State Government collaborates with both the Commonwealth and local governments where necessary, as well as engaging with industry. This is a complex and challenging role and will only become more so into the future. The role of the State Government in growing WA's defence industry will necessarily be focussed on:
- Education and training, ensuring an adequately skilled workforce.
 - Local infrastructure, for example, housing and associated services (roads, schools, etc.).
 - Coordination of defence and industrial infrastructure and the allocation of land use.
 - Providing a central point of coordination and information.
- 9.2 Defence West, which sits within JTSI is the key government body which takes the lead in collaborating with other levels of government and industry; however, there are other State Government organisations which play a role (see Box 9.10). Furthermore, the important role played by local government should not be understated.
- 9.3 There are a range challenges and areas for improvement arising from the Committee's conversations with defence industry stakeholders. These include resourcing constraints, the need for clearer objectives and outcomes for Defence West, improving communication and coordination between State Government agencies involved in defence industry development, and the lack of a clear 'entry point' for those outside government to engage on defence matters. Coordinating efforts related to the defence industry will be increasingly important, as will the timing and sequencing of these activities.

³⁵⁶ Dean Mudford, Chief Executive Officer, DevelopmentWA, *Transcript of Evidence*, 30 September 2024, p. 5.

Box 9.10: Key State Government Agencies**Defence West (JTSI)**

Defence West, a branch of JTSI, is responsible for implementing the State's and Defence Industries Strategic Plan. It is focused on growing the defence industry eco-system in preparation for SRF-West, Australia's acquisition of SSNs, continuous naval shipbuilding and supporting defence innovation and veterans.

Defence West works closely with various stakeholders including: other State Government agencies; the Commonwealth DoD, for example, the ADF and Defence Housing; prime contractors and the SMEs that are a part of their supply chains; industry advisory bodies such as the Henderson Alliance, and the Australian Industry and Defence Network (AIDN).

Defence West has an important role in advocating for local industry participation in defence projects, working with industry groups. It promotes WA's capabilities to defence primes and the Commonwealth government. It facilitates collaboration between industry, government, and research institutions.

Global Advanced Industries Hub (JTSI)

The Global Advanced Industries Hub Program aims to position the Western Trade Coast as a global hub for sustainable trade, advanced manufacturing and innovation. The Western Trade Coast is nearing the limits of its organic development due to the scarcity of large, development-ready sites to support future heavy industrial projects in the region.

This is a cross-government initiative to coordinate and maximise opportunities arising from a variety of government priorities in the area, and to alleviate the challenges that are currently experienced by industry. It is operated from within JTSI as the lead agency.

Department of Training and Workforce Development

DTWD plays a crucial role in developing the skilled workforce required by the defence industry. It has an important role in gathering data from both internal and external resources to gain an overall picture of workforce requirements.

DTWD develops training and workforce strategies (including skilled migration strategies) for the State. It identifies current and emerging skills requirements and workforce demand, and also manages public investment in vocational education and training and workforce services delivered by TAFE colleges (and some private training providers).

The WA Defence Industry Workforce Office (WADIWO) sits within DTWD and administers the Western Australian Defence Industry Workforce Development Plan. The plan details critical State Government initiatives to ensure skilled paraprofessional and professional workers are available for current and anticipated defence industry projects.

DTWD works closely with key WA stakeholders—Defence West, industry advisory bodies, the Defence Industry Capability Advisory Board, the Henderson Alliance and the AIDN—and the Commonwealth.

DevelopmentWA

Through DevelopmentWA, the State Government manages land resources and ensures adequate infrastructure to support defence activities. This involves allocating land for defence projects, such as the new defence precinct at the AMC. This involves working with the Commonwealth and other State Government agencies to balance the needs of both defence and non-defence industries in land allocation decisions, relocating businesses displaced by defence expansion and the new defence precinct.

Sources: <<https://www.wa.gov.au/organisation/department-of-jobs-tourism-science-and-innovation/defence-west>>; <<https://www.wa.gov.au/organisation/department-of-training-and-workforce-development>>; <<https://www.wa.gov.au/government/publications/western-australian-defence-industry-workforce-development-plan>>; <https://www.wa.gov.au/organisation/department-of-jobs-tourism-science-and-innovation/western-trade-coast-global-advanced-industrial-hub-program?auHash=YlbeH2u7bwkEUZIR3r8L00FheOFa-R8o7Qvu_ZuYATg>; Jodie Wallace, Executive Director, Policy Planning and Innovation, Department of Training and Workforce Development, *Transcript of Evidence*, 16 October 2024, p. 9.

9.4 Finally, it is worth noting that it will fall to government to engage with the public to establish social licence for the work being undertaken to accommodate increased defence activity in the State, which is recognised by JTSI.³⁵⁷ As the Perth South West Metropolitan Alliance notes, while Defence investment ‘will undoubtedly offer significant economic opportunities, without careful engagement with local communities, there is a risk to the social licence required for these projects.’³⁵⁸

Governance and coordination

9.5 Effective governance and coordination at the State level is crucial to delivering requirements to enable increased defence activity in WA.³⁵⁹

... we are not just trying to do one transformational project in the precinct; we are actually trying to do two or three, with Westport and Defence and other upgrades that are required.

Collaborative efforts to date

9.6 There is no lack of established mechanisms for information sharing and collaboration; during its investigation, the Committee heard about:

- Sophie O’Keefe, Executive Director, Global Advanced Industries Hub, Department of Jobs, Tourism, Science and Innovation

- The Industrial Lands Steering Committee, focusing on industrial land requirements for defence activity and industry.³⁶⁰
- The Defence West ‘interface group’ (also referred to as an ‘integrated project team’),³⁶¹ facilitating the exchange of information on defence activity and planning.³⁶²
- A directors general Western Trade Coast strategy implementation steering group with representation from agencies such as the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS), the Department of the Premier and Cabinet (DPC), WAPOL, and the Small Business Development Corporation.³⁶³
- The joint Henderson task force with State and Commonwealth representation.³⁶⁴
- The WA Nuclear Powered Submarine Steering Group with participation from other agencies such as the Department of Health for emergency management planning.³⁶⁵

9.7 While the various committees and working groups listed above facilitate communication, there is a need for more streamlined governance arrangements. The multitude of meetings

357 Sophie O’Keefe, Executive Director, Global Advanced Industries Hub, Department of Jobs, Tourism, Science and Innovation *Transcript of Evidence*, 6 November 2024, p. 6.

358 Warick Carter, Director, Perth South West Metropolitan Alliance, *Letter*, 21 October 2024, p. 4.

359 Sophie O’Keefe, Executive Director, Global Advanced Industries Hub, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 6 November 2024, p. 5.

360 Dean Mudford, Chief Executive Officer, DevelopmentWA, *Transcript of Evidence*, 30 September 2024, p. 1 and 5.

361 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 3.

362 Dean Mudford, Chief Executive Officer, DevelopmentWA, *Transcript of Evidence*, 30 September 2024, p. 5.

363 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 9; Chris Clark, Coordinator General, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 6 November 2024, p. 6.

364 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 2 and p. 9.

365 *ibid.*, p. 9.

and committees raises questions about their efficiency and agility in responding to the rapid pace of developments within the defence industry.

- 9.8 Streamlining these arrangements is currently under consideration. Defence West advised that for their collaboration with the Commonwealth Government they are:

looking at the governance arrangements and ... looking to streamline what we have in place. We see that our focus on infrastructure when we talk to the Australian Submarine Agency is dealt with in one working group and yet we are talking to the Department of Defence on the shipbuilding side of the house on infrastructure as well. They both look at considerations at the AMC, so it makes sense that one goes, and we can keep one working group, and that is what we are about to put in place. We have sat down with the Department of Defence and the ASA, looked at the current arrangements and we have a streamlined proposal to go forward.³⁶⁶

- 9.9 Similarly, for collaboration within the State-based organisations, Defence West is considering what best serves the State, streamlining this approach also.³⁶⁷

Defence West: resourcing and outcomes

- 9.10 Defence West is the key State Government agency engaging with the State's defence industry, yet it faces significant resource limitations. Despite an allocation of 24 FTE, Defence West is currently operating with only 14 FTE. They advise that they are actively recruiting and using temporary staff to fill the gaps.³⁶⁸ This substantial shortfall potentially impacts the ability of Defence West to effectively coordinate activities and engage with stakeholders.³⁶⁹
- 9.11 Stakeholders represented by the Henderson Alliance pointed to a lack of clarity regarding Defence West's objectives and outcomes, contributing to uncertainty about its role and responsibilities within the governance framework.³⁷⁰
- 9.12 The Chair of the Henderson Alliance, Rohan Green, suggested that Defence West's position within the larger agency of JTSI further hinders its efficacy and capacity for decision-making:

this is a conversation that I have had with the minister a number of times—if you have a look at the way that Defence SA work, we have had a lot of engagement with Defence SA over the years, and having an agency like Defence SA that has a direct reporting line up through to the Premier, I am not saying that is the right model here, but JTSI is a very diversified, large beast. Without knowing the inner machinations on how it actually really works, looking from the outside, particularly

366 Peta Arbuckle, Executive Director, Defence West, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 9.

367 Linda Dawson, Deputy Director General, Industry Science and Innovation, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 10.

368 Linda Dawson, Deputy Director General, Industry Science and Innovation, and Peta Arbuckle, Executive Director, Defence West, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 23 October 2024, p. 5.

369 Rohan Green, Chairperson, Henderson Alliance, *Transcript of Evidence*, 28 October 2024, p. 8.

370 *ibid.*

on the matters that we are involved in, I think that appears to stifle Defence West's ability to be efficient, to make decisions.³⁷¹

- 9.13 The Committee has come to the conclusion that, notwithstanding the excellent service currently being delivered by Defence West, it is not adequately resourced to fully take advantage of the increased defence investment in the State.

'Unity of command'

- 9.14 There appears to be a broader coordination and communication challenge across all tiers of government and industry engagement. For example, the Committee has observed a need to facilitate the flow of information between the Commonwealth (DoD) and state-level agencies and then into local industry groups; for example, regarding workforce development and infrastructure needs associated with the AUKUS project.
- 9.15 Currently, there is no adequately resourced single-entry point into government for industry or other stakeholders to access information about planning for defence activity in the State. Rather, there appears to be to a range of collaboration and engagement occurring between government agencies and industry.³⁷²
- 9.16 Various stakeholders raised governance as an issue when speaking to the Committee. While there are the various departments who are land holders, or who provide services, those who sit outside government see it as a unified entity. What is needed is a 'one-stop shop' to engage on areas of economic significance, including defence planning and delivery.
- 9.17 The Committee understands that this is an ongoing conversation within government and suggests that an appropriately resourced and structured statutory authority could be tasked with coordinating projects, including defence projects. There needs to be a point of contact which, for example, from the perspective of shipbuilding and defence industries, provides enough lead time to prepare based upon an anticipated pipeline of work.

Delivering land and infrastructure requirements

Industrial land and infrastructure requirements

- 9.18 Essentially the State is in a period of transition, undergoing significant shifts in economic focus and infrastructure development to align with a diversifying economy and to allow it to remain globally competitive.
- 9.19 Over the last three years, the State Government has been working to develop the global advanced industries hub, looking at the Western Trade Coast, and 'recognising its benefit to the state over 50-plus years, but recognising that it had got to a point where some of the industries were older industries.' As an industrial area it has 'grown organically over time'

371 *ibid.*

372 For example, DevelopmentWA does not engage directly with Defence as JTSI (via Defence West) is the lead policy agency on these discussions: information from Defence comes through Defence West to DevelopmentWA. However, they do have direct discussions with Defence Housing about the residential needs of Defence. See: Dean Mudford, Chief Executive Officer, DevelopmentWA, *Transcript of Evidence*, 30 September 2024, p. 2.

expanding along the coast.³⁷³ Four industries are identified which need to be accommodated to remain globally competitive:

- future facing minerals processing
- renewable hydrogen
- shipbuilding and sustainment
- port-related logistics, manufacturing and processing activities.³⁷⁴

9.20 An assessment of current industry and future requirements has been undertaken which culminated in the Western Trade Coast Infrastructure Strategy, setting out infrastructure requirements and the timing of delivery of that infrastructure.³⁷⁵ JTSI is also working across other strategic industrial areas (SIAs) throughout the State and is coordinating industries and their relocation to SIAs in line with State’s economic diversification agenda.³⁷⁶

This convergence of projects in our region is unprecedented in Australia. To put it into perspective, we are on track to deliver the equivalent of three Western Sydney Airport-scale projects over the next 10 to 20 years.

- Warick Carter, Director, Perth South West Metropolitan Alliance

9.21 As noted in Chapter 6, to make way for increasing defence activity there will be an assessment of how to go about relocating identified businesses and industries, along with replicating some of the AMC CUF capability to other SIAs as needed.³⁷⁷

9.22 The Perth South West Metropolitan Alliance proposes that ‘there is a pressing need to look at infrastructure timeframes in the region to ensure that adequate land with the necessary servicing is available for both residential (particularly infill) and industrial land over the coming decades.’³⁷⁸ It also notes workforce constraints as something which may impact the delivery of such ambitious projects:

There are also concerns regarding the ability to deliver numerous coastal infrastructure projects simultaneously. If AUKUS, Westport, and Henderson pursue construction concurrently, there will be significant pressures on the limited local workforce. While common sense would dictate that we will see these projects tackled consecutively, as opposed to concurrent development, we need a clear and committed timeframe from the State and Commonwealth so that we maximise

373 Chris Clark, Coordinator General, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 6 November 2024, p. 2.

374 *ibid.* See also Department of Jobs, Tourism, Science and Innovation, *Western Trade Coast: Global Advanced Industrial Hub program*, 8 October 2024, accessed 19 November 2024, <<https://www.wa.gov.au/organisation/departments-of-jobs-tourism-science-and-innovation/western-trade-coast-global-advanced-industrial-hub-program>>.

375 Department of Jobs, Tourism, Science and Innovation, *Western Trade Coast: Infrastructure strategy*, October 2024, accessed 18 November 2024, <<https://www.wa.gov.au/organisation/departments-of-jobs-tourism-science-and-innovation/western-trade-coast-infrastructure-strategy>>.

376 Chris Clark, Coordinator General, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 6 November 2024, p. 4.

377 *ibid.*

378 Warick Carter, Director, Perth South West Metropolitan Alliance, *Letter*, 21 October 2024, p. 4.

opportunities for community uplift, economic stimulation, and educational growth, particularly for disadvantaged groups.³⁷⁹

Housing to accommodate increased defence activity

- 9.23 There are concerns that the large influx of foreign defence personnel is likely to place pressure on Perth’s existing housing stock and transport infrastructure.³⁸⁰
- 9.24 According to the Perth South West Metropolitan Alliance, from 2027, SRF-West will deliver around 1,100 US personnel (with families bringing the total figure to approximately 2,500). In addition, it suggests that the expansion of HMAS *Stirling* could mean that the base population grows from 3,500 to 10,000 personnel by 2040, and attendant growth in the supply chain workforce is ‘even more significant’ with possibly 1.7 jobs created for every new defence role.³⁸¹
- 9.25 A report into the SRF-West by the Parliamentary Standing Committee on Public Works indicates that over the longer term, AUKUS may increase the City of Rockingham’s population by 64 per cent over the next 23 years to almost 240,000 by 2046.³⁸²
- 9.26 The Perth South West Metropolitan Alliance provided information to the Committee expressing concern about the ability of the housing market to keep pace with population growth into the future:
- On a local level, Rockingham’s population grew by over 5,000 in 2023, representing 5.3% of WA’s total growth. Yet, despite this high demand, only 1,500 dwellings were approved for construction, reflecting a clear housing undersupply (it should be noted that 98% of all applications are approved by local governments and has little influence over the number of applications lodged). This issue does not stem from a lack of demand but from the market’s inability to keep pace with growth.³⁸³
- 9.27 The State Government recently reached an agreement with Defence Housing Australia (DHA) and WA-based contractors³⁸⁴ to deliver 550 new dwellings for Defence personnel. The

... the real challenge is not the construction of housing for defence personnel, but more the housing for the wider demand linked to the associated substantial economic growth in the region.

- Warick Carter, Director, Perth South West Metropolitan Alliance

379 *ibid.*

380 Perth South West Metropolitan Alliance, *Submission on Department of Defence – Submarine Rotational Force – West, Priority Works, HMAS Stirling, Western Australia*, 20 June 2024, p. 2.

381 Warick Carter, Director, Perth South West Metropolitan Alliance, *Letter*, 21 October 2024, p. 1.

382 Parliamentary Standing Committee on Public Works, *Department of Defence – Submarine Rotational Force-West, Priority Works, HMAS Stirling, Western Australia and other works*, Parliament of Australia, Canberra, August 2024, p. 8.

383 Warick Carter, Director, Perth South West Metropolitan Alliance, *Letter*, 21 October 2024, p. 2.

384 Developer Parcel Property, alongside local home builders Forma Homes and Plunkett Homes.

developer will lease these homes back to DHA. This initiative is expected to ‘expand local housing supplies.’³⁸⁵

9.28 The first dwellings in Rockingham are expected to be delivered during 2025-2026 and further agreements are reportedly being negotiated for the delivery of ‘hundreds of additional homes over the next five years.’³⁸⁶ However, the issue will be whether there are enough contractors and skilled labour to carry out the work.³⁸⁷

9.29 Looking into the future, in terms of residential land for any location that might be impacted by increased defence activity, DevelopmentWA advised that there is likely ‘sufficient residential land available now’; however, there is still work to be done ‘to identify what infrastructure might be required to unlock more land into the future’ particularly ‘for the next five to 10 years and beyond.’ Ultimately, unlocking broader tracts of land will ‘require some infrastructure coordination.’³⁸⁸

9.30 As explained by Professor Gordon Flake:

One of the big areas of focus, obviously, coming around the Submarine Rotational Forces, SRF-West, is going to be housing. Where do people stand? Where are the roads? How do they come in? How do they go out et cetera? ... My personal view is that we are still a little bit slow on this. ... The sooner that happens, with all of the local infrastructure—housing, schooling and things like that—the more public and proactive we are, the better we will look and the more we will be ahead of the game as opposed to reactive behind the game.³⁸⁹

9.31 The Perth South West Metropolitan Alliance is also concerned that accommodating population growth in the region will not be as straightforward as some agencies have suggested, stating:

Such remarks often overlook the complexities involved in land development, especially considering the lengthy process required to bring land to market before housing construction can commence. This underscores the importance of involving local governments more closely in these discussions to help identify priority areas for infrastructure upgrades and land that is more readily available for development.³⁹⁰

9.32 Clearly, there is a need to plan and develop infrastructure to support increased defence activity in WA, including roads, utilities, and housing. Engagement across State and local governments, and the construction and development sectors, will be necessary to accurately map housing demand and supply challenges.

385 The Hon Matt Keogh MP, Minister for Defence Personnel; Minister for Veterans’ Affairs, *Hundreds of new homes for Defence personnel in Rockingham*, media release, 11 October 2024.

386 *ibid.*

387 Warick Carter, Director, Perth South West Metropolitan Alliance, *Letter*, 21 October 2024, p. 3.

388 Dean Mudford, Chief Executive Officer, DevelopmentWA, *Transcript of Evidence*, 30 September 2024, p. 6.

389 Professor Gordon Flake, Chief Executive Officer, Perth USAsia Centre, *Transcript of Evidence*, 11 October 2024, p. 11.

390 Warick Carter, Director, Perth South West Metropolitan Alliance, *Letter*, 21 October 2024, p. 3.

Timing and sequencing

9.33 Sophie O’Keefe, Executive Director of JTSI’s Global Advanced Industries Hub, said that the timing of how all these pieces come together is a key focus right now:

I would say this piece of work means, from a state perspective, we have really kind of got our house in order and there is work that needs to occur right now around marine infrastructure, road upgrades, power and water in the precinct.³⁹¹

9.34 Austal pointed towards the need for decisions on the AMC CUF and wider redevelopment to be made as soon as possible:

The latest news around the \$127 million investment to kind of further define it is great but, at the same time, the clock is ticking; we have got a contract to deliver. We have got the capabilities required—that is first and foremost. The clients, the end users, need that capability and the timing of how that is going to develop that precinct really needs to be made quick.³⁹²

9.35 This represents one of the biggest challenges for government going forward.

Concluding remarks

9.36 The Committee has formed the view following this brief investigation that governance and coordination challenges threaten to hinder the growth and success of WA’s defence industry. Addressing these challenges will require a commitment from both State and Commonwealth governments to establish a more centralised and streamlined governance structure, improve communication and information sharing, and adopt a coordinated and timely approach to infrastructure development and workforce planning.



HON P.C. TINLEY AM MLA
CHAIR

391 Sophie O’Keefe, Executive Director, Global Advanced Industries Hub, Department of Jobs, Tourism, Science and Innovation, *Transcript of Evidence*, 6 November 2024, pp. 6-7.

392 Gavin Stewart, General Manager, Strategic Shipbuilding, Austal, *Transcript of Evidence*, 13 November 2024, p. 8.

Appendix One

Committee's functions and powers

The functions of the Committee are to review and report to the Assembly on:

- a) the outcomes and administration of the departments within the Committee's portfolio responsibilities
- b) annual reports of government departments laid on the Table of the House
- c) the adequacy of legislation and regulations within its jurisdiction
- d) any matters referred to it by the Assembly including a bill, motion, petition, vote or expenditure, other financial matter, report or paper.

At the commencement of each Parliament and as often thereafter as the Speaker considers necessary, the Speaker will determine and table a schedule showing the portfolio responsibilities for each committee. Annual reports of government departments and authorities tabled in the Assembly will stand referred to the relevant committee for any inquiry the committee may make.

Whenever a committee receives or determines for itself fresh or amended terms of reference, the committee will forward them to each standing and select committee of the Assembly and Joint Committee of the Assembly and Council. The Speaker will announce them to the Assembly at the next opportunity and arrange for them to be placed on the notice boards of the Assembly.

Appendix Two

Hearings and briefings

Public hearings*			
Date	Name	Position	Organisation
30 September 2024	Dean Mudford	Chief Executive Officer	Development WA
	Lorissa Kelly	Executive General Manager, Business Development and Marketing	
11 October 2024	Gordon Flake	Chief Executive Officer	Perth USAsia Centre
11 October 2024	Bradley Vermeer	Senior Manager, External Affairs	Babcock International Group
	Andrew Davis	Executive Director, Strategic Growth	
	Sarah Tartakowski	Head of Supply Chain	
16 October 2024	Karen Ho	Director General	Department of Training and Workforce Development
	Jodie Wallace	Executive Director, Policy Planning and Innovation	
23 October 2024	Linda Dawson	Deputy Director General, Industry Science and Innovation	Department of Jobs, Tourism, Science and Innovation
	Peta Arbuckle	Executive Director, Defence West	
28 October 2024	Rohan Green	Chairperson	Henderson Alliance
	Terry Gropp	Board Member	
	Andrew Neaves	Managing Director, Allship Engineering, and Board Member	
1 November 2024	Paul Gay	Chief Operating Officer (Multi Class Sustainment)	ASC Pty Ltd
	Alex Walsh	Chief Nuclear & Capability Officer	North West Defence Alliance
	Matthew Niikkula	Chair	
6 November 2024	Nicole Spencer	Deputy Commissioner, Strategy and Capability	Australian Border Force
	Sophie O'Keefe	Executive Director, Global Advanced Industries Hub	Department of Jobs, Tourism, Science and Innovation
	Chris Clark	Coordinator General, Economic Development Group	
13 November 2024	Gavin Stewart	Vice President Strategic Shipbuilding	Austal Australia
	Ben Wardle	Head of Operations Strategy	

***In addition to these public hearings, the Committee held three closed hearings and four private briefings.**

Appendix Three

Defence enterprise estate and infrastructure projects in WA

Department of Defence Enterprise Estate and Infrastructure, Budget 2024 – 25, Approved Major and Medium Enterprise Estate and Infrastructure Projects in Western Australia³⁹³

Project	Description	Location	Estimated Cumulative Expenditure in WA to 30 June 2024 (\$m)	2024-2025 Budget Estimate in WA (\$m)	Total Estimated Expenditure of overall Project, including locations outside WA (\$m)
Navy Capability Infrastructure Sub-program: Offshore Patrol Vessel (OPV) Facilities (SEA 1180 Phase 1)	This project aims to construct berthing, training, maintenance, logistics, and support facilities at HMAS <i>Stirling</i> to support the introduction of the Arafura Class OPVs.	HMAS <i>Stirling</i>	219.1	15.5	918.5
		Henderson Maritime Precinct	55.0	-	
Navy Capability Infrastructure Sub-program: Hunter Class Frigate Program Facilities (SEA 5000 Phase 1)	This project focuses on upgrading facilities and infrastructure at HMAS <i>Stirling</i> to accommodate the new Hunter Class frigates replacing the Anzac Class.	HMAS <i>Stirling</i>	264.8	16.9	915.5
		Henderson Maritime Precinct	100.3	-	
Maritime Patrol Aircraft Replacement (AIR 7000 Phase 2B)	This project involves establishing new and upgraded facilities and infrastructure at RAAF Base Pearce to support the introduction of P-8A aircraft.	RAAF Pearce	110.2	-	896.9
		HMAS <i>Stirling</i>	4.6	-	
RAAF Base Learmonth Redevelopment Enabling KC-30 Operations	This project aims to upgrade the airfield infrastructure at RAAF Base Learmonth, including the runway, taxiway, and parking aprons.	RAAF Learmonth	25.7	141.4	662.2

393 Note: Major capital facilities and infrastructure projects are defined as having expenditure of \$75 million and over (excluding GST) and are subject to Government and parliamentary approval. Medium capital facilities and infrastructure projects have expenditure between \$5 million and \$75 million (excluding GST) and are subject to Government approval and notification to the Parliamentary Standing Committee on Public Works.

Department of Defence Enterprise Estate and Infrastructure, Budget 2024 – 25, Approved Major and Medium Enterprise Estate and Infrastructure Projects in Western Australia³⁹³

Project	Description	Location	Estimated Cumulative Expenditure in WA to 30 June 2024 (\$m)	2024-2025 Budget Estimate in WA (\$m)	Total Estimated Expenditure of overall Project, including locations outside WA (\$m)
Airfield Maintenance Works P0010 (Amberley, Pearce, Richmond and Albatross)	This project provides major maintenance of aircraft pavements, airfield lighting and related airfield drainage at 4 Defence bases around Australia.	RAAF Pearce	24.1	39.3	427.9
Defence Fuel Transformation Program – Tranche 2 Facilities Project	This project further reduces the risk to the Defence Fuel Network and Defence Fuel Supply Chain. The project will achieve this aim through the upgrading and/or remediation of fuel installations across Australia.	RAAF Learmonth	4.4	36.6	286.9
		Geraldton	0.2	4.9	
		Laverton	0.3	4.8	
		HMAS <i>Stirling</i>	0.1	5.0	
Facilities to Support JP 9101 Enhanced Defence Communications	This project will provide the required facilities and infrastructure upgrades to support the installation and sustainment of the new Enhanced Defence High Frequency Communications System capability across 15 different sites across Australia.	Exmouth	-	-	280.3
		Rough Range	-	-	
Joint Health Command Garrison Facilities Upgrades	This project proposes to construct eight new health centres and refurbish five existing health centres across 13 sites around Australia.	Campbell Barracks	17.2	-	251.8
		RAAF Pearce	5.7	-	
Land 121 Phase 5B Facilities Project	This project will provide fit for purpose facilities and infrastructure to support and sustain vehicles, modules and trailers being procured for the Australian Defence Force under the LAND 121 Vehicle Acquisition Program.	Campbell Barracks	35.5	-	183.3

Department of Defence Enterprise Estate and Infrastructure, Budget 2024 – 25, Approved Major and Medium Enterprise Estate and Infrastructure Projects in Western Australia³⁹³

Project	Description	Location	Estimated Cumulative Expenditure in WA to 30 June 2024 (\$m)	2024-2025 Budget Estimate in WA (\$m)	Total Estimated Expenditure of overall Project, including locations outside WA (\$m)
Airfield Capital Works P0006 (Curtin, Tindal and Townsville)	Maintenance of aircraft pavements and airfield lighting at RAAF Base Curtin. This project includes work at Tindal and Townsville.	RAAF Curtin	15.2	-	95.3
DEF 01 Submarine Rotational Force – West Infrastructure Project Priority Works	Infrastructure enhancements and upgrades at HMAS <i>Stirling</i> to support nuclear-powered submarines.	HMAS <i>Stirling</i>	5.5	69.4	74.9
AIR 2025 Phase 6 Jindalee operational Radar Networks (JORN) Facilities Project	New facilities and infrastructure in Geraldton to support the JORN mid-life upgrade.	RAAF Learmonth	0.0	-	61.9
		Geraldton	3.2	-	
Facilities to Support SEA 2273 Fleet Information Environment Modernisation Project	Information system upgrades to support naval operations at HMAS <i>Stirling</i> .	HMAS <i>Stirling</i>	22.4	4.0	58.6
GWEO Storage Tranche 1	Explosive ordnance storage facilities and infrastructure at HMAS <i>Stirling</i> .	HMAS <i>Stirling</i>	9.9	9.3	52.2
LAND 2110 Phase 1B – Chemical, Biological, Radiological and Nuclear Defence Facilities	New and refurbished facilities, including training and storage at Bindoon Training Area.	HMAS <i>Stirling</i>	0.8	-	23.1
		Bindoon Training Area	0.5	-	
RAAF Base Pearce Additional Flight Training Device	New facility to support simulated air capability training.	RAAF Pearce	5.3	1.3	7.2
WESTERN AUSTRALIA TOTAL			930	348.4	5,196.5
AUSTRALIA TOTAL			7,654.7	2,298.4	14,606.4

Appendix Four

AUKUS in Western Australia

AUKUS – An overview

AUKUS is a trilateral security partnership between Australia, the UK and the US that aims to achieve the construction and delivery of submersible ship nuclear (SSN), or (conventionally-armed) nuclear attack submarine, capability to Australia. The partnership is the first time a provision in the 1968 nuclear non-proliferation treaty has been used to transfer fissile material and nuclear technology from a nuclear weapons state to a non-weapons state.³⁹⁴

AUKUS took effect in September 2021 and was followed by an 18-month trilateral consultation period. On March 13, 2023, the partners announced an ‘Optimal Pathway’ to produce a nuclear-powered submarine capability in Australia.³⁹⁵ Under this schedule, the RAN will acquire three Virginia class SSNs from the US Navy by the early 2030s before AUKUS partners deliver new and trilaterally-developed SSN-AUKUS vessels later in the decade.

The UK’s Royal Navy will construct and deliver the first SSN-AUKUS in the late 2030s, and Australia will subsequently manufacture additional SSN-AUKUS vessels from domestic shipyards in South Australia.³⁹⁶ Ultimately, the RAN is anticipated to operate a fleet of eight SSNs by the mid-2050s.³⁹⁷

AUKUS Pillar 1 – Conventionally-armed nuclear-powered submarine capability

The AUKUS programme is composed of two strategic ‘pillars.’ Pillar 1 aims to provide Australia with a conventionally-armed, nuclear-powered submarine capability at the earliest possible date.³⁹⁸ Although this will ultimately culminate in the sale, transfer and construction of SSNs from the U.K. and U.S., Australia must first achieve the capacity to safely and responsibly own, operate, maintain and regulate a sovereign SSN (this concept is known as sovereign readiness). For this reason, several early provisions under Pillar 1 will ensure that Australia is able to develop the expertise and infrastructure that is required to operate and

394 Julian Borger, 'Scheme allowing nuclear material in Australian submarines worries experts about precedent of safeguard removal', *The Guardian* (web-based), 14 March 2024, accessed 26 August 2024, <<https://www.theguardian.com/world/2023/mar/13/aukus-australian-submarine-nuclear-loop-hole-proliferation-fears>>.

395 United States Department of Defense, *AUKUS: The Trilateral Security Partnership Between Australia, U.K. and U.S.*, accessed 26 August 2024, <<https://www.defense.gov/Spotlights/AUKUS/>>.

396 Australia Government: Australian Submarine Agency, *Pathway to Australia’s Nuclear-Powered Submarine Capability*, p. 1. See also, Australian Government: Australian Submarine Agency, SSN-AUKUS, p. 1.

397 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *AUKUS nuclear-powered submarine pathway*, *House of Representatives, Parliament House, Canberra ACT*, media release, 22 March 2023.

398 Department of the Prime Minister and Cabinet, *FACT SHEET: Implementation of the Australia – United Kingdom – United States Partnership (AUKUS)*, p. 1.

maintain an SSN capability before the sale of Virginia Class submarines occurs in the early 2030s (see table A5.1).³⁹⁹

Table A5.1: AUKUS Pillar 1 – The acquisition of conventionally-armed, nuclear-powered submarines

Phase	year	Description of initiatives	Category
1	2023	<p>Initial SSN visits to WA and SSN training:</p> <ul style="list-style-type: none"> Australian military and civilian personnel undertake accelerated training in SSN technology (including the embedding of Australians on USS Hawaii and USS Emory S. Land). First Submarine Tendered Maintenance Periods (STMPs) for U.S. SSNs begin at HMAS <i>Stirling</i> (the Royal Navy plans to increase SSN visits from 2026). \$8 billion investment to expand HMAS <i>Stirling</i> (including Wharf upgrades and the construction of operational maintenance, logistics and training facilities). 	Workforce and infrastructure development (sovereign readiness)
2	2027	<p>Establishment of SRF – West :</p> <ul style="list-style-type: none"> HMAS <i>Stirling</i> will support a rotation of 1 U.K. and up to 4 U.S. SSNs for extended periods. Australian sailors deploy on U.K. and U.S. SSNs to develop at-sea experience with naval nuclear propulsion while Australian maintenance personnel obtain experience on shore. 700 U.S. Navy personnel to be stationed in Perth. 	
3	Early 2030s	<p>Sale of 3 US Virginia Class submarines to Australia:</p> <ul style="list-style-type: none"> Australia will acquire 3 Virginia Class SSNs from the U.S. pending Congressional approval (2 used but refurbished with 23 years of remaining life, and 1 new). Potential to transfer an additional 2 Virginia Class SSNs from the U.S. if new-design AUKUS submarines are delayed. 	Acquisition and operation of SSNs
4	Late 2030s	<p>Delivery of first SSN-AUKUS submarines:</p> <ul style="list-style-type: none"> Australia will acquire the first new-design AUKUS SSNs from the Royal Navy. The first Australian AUKUS submarine to be constructed in Adelaide in a joint venture between BAE Systems and ASC. 	

Pillar 2 – Advanced capabilities

AUKUS Pillar 2 aims to bolster trilateral industry and innovation sector collaboration between AUKUS partners. Although much of this activity remains classified, AUKUS partners are committed to jointly realising greater maritime cooperation through networked autonomy, decision advantage and enhanced strike capabilities. According to a Joint Statement from AUKUS defence Ministers, this will involve aligning export and trade regulations to improve defence trading, in addition to efforts synchronise partners' capability development and acquisition systems to support 'more seamless and agile cooperation.'⁴⁰⁰

399 Australia, United Kingdom, United States, *The AUKUS Nuclear-Powered Submarine Pathway: A Partnership for the Future*, 14 March 2023, p. 9.

400 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *AUKUS Defence Ministers' Joint Statement*, media release, 9 April 2024.

Initially, AUKUS leaders identified four areas of Pillar 2 collaboration: cyber capabilities, artificial intelligence, quantum technologies and additional undersea capabilities.⁴⁰¹ In April 2022, however, four additional areas of collaboration were announced: these include hypersonic and counter-hypersonic capabilities, electronic warfare capabilities, innovation and information sharing.⁴⁰²

Western Australia – The AUKUS state

The transfer of naval nuclear propulsion equipment, related material and SSNs to Australia is subject to stringent conditions which have been imposed by the U.S. and U.K governments. Ultimately, Australia must obtain the ability to safely own, operate, maintain and regulate a sovereign conventionally-armed, nuclear-powered submarine capability before it receives Virginia Class and AUKUS SSNs.

Under the U.S. *AUKUS submarine Transfer Authorisation Act of 2023*, the transfer of Virginia Class submarines to Australia will depend on proof that the Government of Australia has developed the capacity to host and fully operate SSN vessels. This will involve demonstration that Australia has acquired the domestic capacity to fully perform all the associated crewing, operating and regulatory and emergency procedures.⁴⁰³

Under AUKUS Pillar 1, HMAS *Stirling* will be the focus of the partners' efforts to develop Australia's sovereign ready and nuclear stewardship capability, accumulating the infrastructure, technical capabilities, industry, and human capital necessary to produce, maintain, operate, and steward a sovereign fleet of conventionally armed, nuclear-powered submarines.⁴⁰⁴

After the sale of three Virginia Class SSNs from the U.S. in the early 2030s, HMAS *Stirling* will support the operation and maintenance of Australia's newly acquired sovereign SSN fleet.⁴⁰⁵

Submarine Rotational Force–West

From 2027, AUKUS partners will have a rotational presence at HMAS *Stirling* of 1 Royal Navy and up to 4 U.S. SSNs. This will be known as SRF-WEST.

The aim of this rotational presence is to develop Australia's capability to safely and securely operate nuclear-powered submarines. Australian sailors will therefore deploy on visiting U.K. and U.S. vessels to develop at-sea experience with naval nuclear propulsion, while Australian maintenance personnel support these submarines at shore.⁴⁰⁶

401 Prime Minister's Office, *Joint Leaders statement on AUKUS*, media release, 21 September 2021.

402 Prime Minister's Office, *Fact sheet: implementation of the Australia-UK-US partnership (AUKUS)*, 5 April 2022. See also: Congressional Research Service, *AUKUS Pillar 2 (Advanced Capabilities): Background and Issues for Congress*, 21 May 2024.

403 *National Defense Authorization Act for Fiscal Year 2024*, (United States Congress), s. 1351 - 1354.

404 Australian Government: Australian Submarine Agency, *Western Australia*, p. 1.

405 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *Western Australia home for Australia's first nuclear-powered submarines*, media release, 14 March 2023.

406 Australian Government: Australian Submarine Agency, *Submarine Rotational Force - West*, p. 1.

Submarine Tendered Maintenance Periods

In preparation for SFR-West, HMAS *Stirling* will periodically provide SSN maintenance services with the support of tender ships to visiting U.S. and U.K. submarine vessels.

The objective of these submarine tendered maintenance periods (STMPs) is to develop Australia's capability to safely and securely operate nuclear-powered submarines. RAN personnel will therefore directly participate in routine maintenance and will undertake hands-on learning through a range of activities alongside their U.K. and U.S. counterparts.⁴⁰⁷

In March 2024, the Commonwealth Government selected ASC, which operates from Henderson and Garden Island, as Australia's Sovereign Submarine Partner for the sustainment of conventionally-armed, nuclear-powered submarines, commencing with Australia's new Virginia class SSNs. The ASA notes that it is targeting the deployment of over 100 personnel over the next 12 months from ASC in WA to participate in sustainment activities overseas to upskills the workforce in preparation of supporting U.K. and U.S. SSN visits.⁴⁰⁸

During STMPs, workers from ASC will provide temporary support services to visiting submarines and participate in an observatory capacity to continue learning about SSN maintenance.

On 23 August 2024, HMAS *Stirling* commenced the first STMP, marking the first time RAN personnel have directly participated in the maintenance of a nuclear-powered submarine in Australia.⁴⁰⁹ This STMP is currently being conducted on USS Hawaii (SSN 776), a Virginia class submarine, which arrived with USS Emory S. Land, a U.S. service ship with equipment and crew dedicated to providing significant maintenance work for U.S. submarines.⁴¹⁰

SSN Training

Australia constructed its last submarine more than 20 years ago, and submarine shipbuilding and maintenance personnel (both civilian and military) have until now been occupied by the maintenance of Australia's existing fleet of Collins-Class, rather than SSN, submarines.⁴¹¹

For this reason, local training and workforce development is recognised as a critical component of the AUKUS programme: both civilian and military initiatives have therefore been undertaken since the announcement of AUKUS to improve Australia's capacity to operate and maintain SSNs.

407 Australian Government: Australian Submarine Agency, *Submarine Tendered Maintenance Period*, p. 1.

408 Australian Government: Australian Submarine Agency, *Australia's Sovereign Submarine Partner for the sustainment of Australia's NPS capability*, p. 1.

409 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *Joint Statement – Submarine Tendered Maintenance Period*, media release, 23 August 2024.

410 Australian Government: Department of Defence, *Arrival of USS Hawaii (SSN 776) for first AUKUS Nuclear-Powered Submarine Maintenance Activity in Australia*, media release, 22 August 2024.

411 Peter Dean, Alice Nason, Sophie Mayo and Samuel Garrett, *AUKUS inflection point: Building the ecosystem for workforce development*, United States Studies Centre, 11 December 2023, p. 8.

ASC has deployed approximately 30 employees to Pearl Harbour’s Naval Shipyard to directly participate in the maintenance of U.S. Virginia class SSNs alongside U.S. counterparts. These employees are predominantly mechanical fitters and electricians, as well as electrical, mechanical and safety engineers and submarine maintenance and battery crew. In total, more than 100 Australian shipyard workers at ASC are expected to have departed by mid-2025 for naval propulsion skilling at Pearl Harbour. Upon the completion of their training at Pearl Harbour, these individuals will assume key roles in WA as part of SRF-West.⁴¹²

As part of ADF initiatives to upskill military personnel, over 30 members of the RAN were deployed on USS Emory S. Land submarine tender, integrating with U.S. sailors to garner the knowledge, skills and experience necessary to conduct SSN maintenance. In addition, RAN personnel are currently enrolled in training courses with the Royal Navy at MHS Sultan, and with the U.S. Navy.⁴¹³

412 The Hon Richard Marles MP, Deputy Prime Minister and Minister for Defence, *First group of Australian submarine workers depart for Pearl Harbour AUKUS training*, media release, 22 June 2024.

413 Lieutenant Commander John Thompson, *Nuclear-powered sub training on track*, media release, 27 August 2024. See also, Australian Government: Australian Submarine Agency, *Royal Australian Navy Officers Graduate from Royal Navy Nuclear Reactor Course at HMS Sultan in UK*, 12 July 2024.

Appendix Five

Glossary of terms

Australian and New Zealand Standard Industrial Classification (ANZSIC)	Used by the Australian Bureau of Statistics, ANZSIC provides a standard framework under which business units carrying out similar productive activities can be grouped together, with each resultant group referred to as an industry. An individual business entity is assigned to an industry based on its predominant activity (e.g., Mining, Manufacturing, Retail trade). The ANZSIC underpins the standardised collection, analysis, and dissemination of economic data on an industry basis in Australia.
Australian Bureau of Statistics (ABS)	A Commonwealth government agency that collects and analyses statistics in order to advise the Commonwealth Government.
Australian Defence Force (ADF)	The Royal Australian Navy, Australian Army and Royal Australian Air Force, commanded by the Chief of the Defence Force.
Australian Marine Complex (AMC)	Located in Perth and established in 2003, the Australian Marine Complex is one of only two naval shipbuilding locations in Australia. It is currently composed of 5 precincts, which include shipbuilding, fabrication, support, technology and recreational boating.
AUKUS	An acronym for the defence and security partnership between Australia, the UK and the US, announced in September 2021.
AUKUS Submarine (SSN-AUKUS)	A planned class of nuclear-powered fleet submarine (SSN) intended to enter service with the UK's Royal Navy in the late 2030s and the Royal Australian Navy in the early 2040s. The design is intended to replace the UK's Astute-Class submarine and Australia's Collins-Class submarine.
Collins-Class Submarine	An Australian-constructed diesel-electric submarine operated by the Royal Australian Navy since 1990. This fleet of submarines is anticipated to undergo a Life-of-Type Extension (LOTE) at Osborne Shipyard in South Australia to remain operationally capable and available into the 2040s. The fleet is currently based at HMAS <i>Stirling</i> in Western Australia.
Compound annual growth rate (CAGR)	A mean annual growth rate over a period longer than one year.
Critical mineral	A critical mineral is a metallic or non-metallic element that is essential for modern technologies, economies or national security, and has a supply chain at risk of disruption
Defence	The Department of Defence and the Australian Defence Force. 'Defence' is used to refer to the organisation in its entirety.
Defence Housing Australia (DHA)	Wholly owned by the Australian Government and enabled by the <i>Defence Housing Australia Act (1987)</i> , Defence Housing Australia supplies housing and related services to Australian Defence Force members and their families to meet the operational requirements of Defence.
Defence industry	All businesses that are actually or potentially involved in supplying military capability and/or are influenced by Defence business policies or purchasing decisions. They encompass research and development, engineering, manufacturing and the service of military material and facilities across air, sea and land domains
Defence industry business	Defence industry businesses include businesses that have received payments from Defence for the provision of goods and services.
Defence sector	The category of activity within the economy that involves providing goods and services to defence.

Appendix Three

Defence West	Defence West, a section of the Department of Jobs, Tourism, Science and Innovation, is responsible for the implementation of the State Government's Defence and Defence Industry Strategic Plan. The organisation is focused on growing the State's defence industry ecosystem in preparation for AUKUS nuclear-powered submarines, continuous naval shipbuilding and supporting defence innovation and veterans.
Department of Defence (DoD)	The Department of Defence, headed by the Secretary of the Department of Defence.
Department of Training and Workforce Development (DTWFD)	The Department aims to enable all Western Australians to participate in a highly skilled and diversified economy. To achieve this, it engages with industry, community and training service providers, identifies the current and emerging skills needed for Western Australia, leads the development of training and workforce strategies, and manages the public investment in vocational education and training (VET) and workforce services delivered by TAFE colleges, private training providers and other service providers.
Direct employment (Defence)	The number of paid employees that are associated with the defence industry and is estimated as the proportion of the employee headcount funded by direct payments from Defence. The number of paid employees includes all part-time and full-time employees and means that some employees may be counted more than once if they work for more than one business. Under ABS Australian Defence Industry Account estimates, employment that is associated with Defence expenditure, not employment created by Defence expenditure.
Full-cycle docking	Otherwise known as 'deep maintenance', full-cycle docking involves taking a submarine out of the water and placing it in a dry dock for extensive maintenance, repairs, and upgrades. This process occurs every ten years for a duration of approximately 24 months.
Gross domestic product (GDP)	The total market value of goods and services produced in Australia within a given period after deducting the cost of goods and services used up in the process of production but before deducting allowances for the consumption of fixed capital. Thus, gross domestic product, as here defined, is 'at market prices'. It is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services.
Gross state product (GSP)	The aggregate which details the total economic production of a state economy and is the state equivalent to GDP.
Gross value added (GVA)	The value of output at basic prices minus the value of intermediate consumption at purchasers' prices. The term is used to describe gross product by industry and by sector. Basic prices valuation of output removes the distortion caused by variations in the incidence of commodity taxes and subsidies across the output of individual industries.
Henderson defence precinct	A planned defence precinct in Henderson, Western Australia, which will enhance Australia's self-reliance by constructing and sustaining surface fleet vessels for the Royal Australian Navy. In conjunction with the Osborne Naval Shipyard in South Australia, it will construct 18 medium landing craft and 8 heavy landing craft for the Army's new littoral fleet and General-Purpose Frigates. The Precinct will also be the location for contingency docking and dept level maintenance of conventionally-armed, nuclear-powered submarines.

HMAS <i>Stirling</i>	HMAS <i>Stirling</i> is the Royal Australian Navy's largest base in Australia and is part of Fleet Base West. HMAS <i>Stirling</i> 's primary purpose is to provide operational and logistics support to the RAN ships, submarines and aircraft based in WA. The base is home to the RAN Submarine Training and Systems Centre, the Training Centre West complex, Defence Communications Station Perth, and a trials, research and support facility.
Indirect employment	The number of jobs in secondary economic activity resulting from a primary economic activity, such as in provision of materials, supplies, goods and services to support the primary activity, or generated or supported in retail and service sectors by the spending of salaries and wages of individuals and families involved in the primary economic activity.
Indo-Pacific	The region stretching from the Pacific to the Indian Ocean.
Indo-Pacific Defence and Security Conference	Hosted by the State Government in Perth, the Indo-Pacific Defence and Security Conference addresses avenues for collaboration amongst Australia, its allies and defence industry partners for collaboration to build security across the Indian Ocean.
Integrated Investment Programme (IIP)	The Commonwealth Government's Integrated Investment Programme establishes the specific capabilities the Government will invest in to give effect to Australia's National Defence Strategy. As of 2024, the Programme will be revised biennially, in line with the cycle for updating the National Defence Strategy.
National Defence Strategy (NDS)	The Commonwealth Government's National Defence Strategy establishes the Government's strategic framework to guide the significant and urgent changes required to transform Defence's capability, force posture, force structure, acquisition, recruitment and international engagement.
Optimal Pathway	The pathway to deliver a nuclear-powered, conventionally-armed submarine capability to Australia in a phased fashion by the early 2030s. The pathway ensures Australia is able to build its skills, experience, capacity and capability, and achieve being sovereign ready, as early as possible.
Prime contractors	Prime contractors are engaged by Defence on long-term contracts with possible sub-contracting opportunities for businesses.
Sovereign ready	Sovereign ready is an important milestone in the Optimal Pathway that will allow Australia to systematically and carefully develop its capacity and capability to steward nuclear-powered, conventionally-armed submarines. It refers to the point at which Australia has the ability to safely own, operate, maintain and regulate a sovereign conventionally-armed, nuclear-powered submarine capability. Australia's target date for achieving the sovereign ready milestone is in the early 2030s.
Submarine Rotational Force – West (SRF-West)	A rotational presence at HMAS <i>Stirling</i> of one UK and up to four US nuclear-powered submarines from as early as 2027. SRF-West will help Australia to acquire the necessary operational capabilities and skills to be 'sovereign ready' from the early 2030s.
Submarine Tendered Maintenance Period (STMP)	A submarine maintenance activity supported by a tender ship, which provides the capability, equipment, facilities and crew to support, maintain, repair and supply a submarine.
Virginia-Class Submarine	A nuclear-powered cruise missile fast attack submarine developed by the US that will provide Australia with a nuclear-powered submarine capability as early as possible. This acquisition will eliminate any Royal Australian Navy capability gap.

Appendix Six

Acronyms

\$	Australian dollar
ANZSIC	Australian and New Zealand Standard Industrial Classification
ABF	Australian Border Force
ABS	Australian Bureau of Statistics
ADF	Australian Defence Force
ADSCS	Australian Defence Satellite Communications Station
ADV	Australian Defence Vessel
AMC	Australian Marine Complex
APOD	Alternative Place of Detention
ASA	Australian Submarine Agency
CAGR	Compound annual growth rate
CASG	Capability Acquisition Sustainment Group
CSG	Combat Support Group
CUF	Common User Facility
C4ISR	Command, Control, Communications, Computers (C4) Intelligence, Surveillance and Reconnaissance (ISR)
DHA	Defence Housing Australia
DIDS	Defence Industry Development Strategy
DoD	Department of Defence
DTWD	Department of Training and Workforce Development
FCD	Full Cycle Docking
GDP	Gross domestic product
GSP	Gross state product
GVA	Gross value added
HIMARS	High Mobility Artillery Rocket System
HMAS	His Majesty's Australian Ship
HoA	Heads of Agreement
IDC	Immigration Detention Centre
IIP	Integrated Investment Programme
JORN	Jindalee operational Radar Network

Appendix Six

JTSI	Department of Jobs, Tourism, Science and Innovation
LCH	Landing Craft Heavy
LCP	Local Content Policy
LOSV	Large Optionally Crewed Surface Vessel
MRF-D	Marine Rotational Force - Darwin
NDS	National Defence Strategy
NSSG	Naval Shipbuilding and Sustainment Group
NTP	Nuclear Non-Proliferation Treaty
OCV	Offshore Combatant Vessel
OPV	Offshore Patrol Vessel
RAAF	Royal Australian Air Force
RAN	Royal Australian Navy
RAS	Remote Autonomous System
RSAF	Republic of Singapore Air Force
SASR	Special Air Service Regiment
SDIP	Sovereign Defence Industrial Priority
SEG	Security and Estate Group
SMEs	Small and medium-sized enterprises
SRF-West	Submarine Rotational Force - West
SSA	Strategic Shipbuilding Agreement
SSN	Ship Submersible Nuclear
STMP	Submarine Tendered Maintenance Period
UK	United Kingdom
UMA	Unauthorised Maritime Arrival
US	United States of America
VLF	Very Low Frequency
WA	Western Australia
WADIWO	Western Australian Defence Industry Workforce Office



Parliament House
4 Harvest Terrace, West Perth WA 6005
Telephone: +61 8 9222 7222
Email: laco@parliament.wa.gov.au
Website: www.parliament.wa.gov.au