

## Acknowledgement

We acknowledge the traditional Aboriginal owners of Country throughout Victoria, their ongoing connection to this land and we pay our respects to their culture and their Elders past, present and future.

#### Disclaimer

The information included in the Victorian Defence Vision is correct at the time of publishing. Initiatives referenced throughout this document are currently funded, but are scheduled to lapse prior to 2030. This does not pre-empt future funding or program decisions by the Victorian Government over this period.

Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne

Department of Jobs, Skills, Industry and Regions

121 Exhibition Street, Melbourne VIC 3000

© State of Victoria, March 2025

Print Managed by Finsbury Green

ISBN 978-1-76090-677-1 (Print)

ISBN 978-1-76090-678-8 (pdf/online/MS word)

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Hon Jacinta Allan MP Premier of Victoria

# Premier's Message

Victoria is Australia's centre of manufacturing. We make, create and innovate.

We have a highly-skilled workforce, trained for advanced design, engineering and manufacturing.

And we're ready to seize the opportunities of defence manufacturing.

Victoria is already home to companies like Babcock, BAE Systems Australia, Hanwha Defence Australia, Leonardo, Lockheed Martin, Moog, and Saab. And, of course, Thales Australia – maker of the Bushmaster in my hometown of Bendigo.

The Bendigo-built Bushmaster saves lives – and supports more than 250 local jobs in my community.

I want the same opportunity for communities all over our state. Because defence investments mean local jobs for Victorians.

Late last year, our Government released the Economic Growth Statement, charting our course to build an even stronger Victorian economy.

It singles out advanced manufacturing and defence as a priority sector to grow jobs – in Melbourne, and across regional Victoria.

The Victorian Defence Vision Statement takes another step to bring that vision to life, and make sure our state benefits from Commonwealth investments and the opportunities of AUKUS.

Thank you to everyone who has contributed to this Statement.

Thank you for helping us to seize the opportunities for more advanced manufacturing jobs for Victorians.



Hon Colin Brooks MP Minister of Industry and Advanced Manufacturing

# Minister's Message

Victoria has pride of place as the nation's manufacturing heartland. Nowhere is that more evident than in our defence industry.

Our strong economic environment, means a growing number of around 2,500 defence supply chain businesses are anchored in Victoria, including local success stories such as Cablex, Corvus Technology Solutions, Marand and SYPAQ.

These businesses choose to operate in Victoria so they can leverage our advanced manufacturing expertise and world-class research and development institutions.

Victoria is uniquely placed as a national leader in defence and aerospace, and the Victorian Defence Vision Statement outlines our vision to capitalise on our significant advantages.

The Statement builds on the forthcoming Victorian Industry Policy, which will establish a new framework to enhance industry productivity, competitiveness, and resilience while also aiming to seize emerging economic opportunities, including in the defence sector. With investments like our Victorian Land Systems Fund, we are helping to build the capabilities of Victorian companies so they can compete and secure contracts with Hanwha and other key defence businesses.

As the Asia Pacific's premier destination for the global defence industry to connect and explore opportunities, we're home to major defence and aerospace expositions that have the world coming to Victoria to see what we have to offer.

This includes the Avalon Australian International Airshow, the biggest event of its kind in the Southern Hemisphere, and the Land Forces International Land Defence Exposition, the largest international land defence conference ever held in Australia.

These events bring together top global aviation, aerospace and defence decision-makers, including international CEOs and Chiefs from respective services and defence forces.

Through this Statement, we will continue to invest in our defence industry to create highly skilled jobs, grow our capabilities, helping to open up export opportunities and attract future investment to Victoria.

Further to the economic and employment opportunities, we believe our state has an important role to play in ensuring the people who serve in our Defence Force have access to the very best equipment and technology.

With a defence industry made up of thousands of innovative and skilled businesses, and nationleading expertise in advanced manufacturing, this Statement sets out a path to a prosperous and successful defence future in Victoria.



Hon Gayle Tierney MP Minister for Skills and TAFE

# Minister's Message

Victoria is Australia's most highly skilled state.

We are home to a world-class post-secondary education sector including the nation's highestranked university and an industry-connected Technical and Further Education (TAFE) Network comprised of 12 TAFE institutes and 4 of Australia's 6 dual-sector universities.

The Victorian Government's focus on skills development means we are well positioned to meet the rapidly evolving capability requirements of the defence sector.

Victoria's TAFE Network has existing expertise across engineering, advanced manufacturing and digital technology, with a record of specialised industry collaboration and workforce development. This ensures training is up to date and fit for purpose, and graduates are work ready.

A great example of how TAFEs are collaborating with industry is the Australian Defence Force (ADF) partnership with Wodonga TAFE on the Joint Technical Trades Training Services contract. This innovative delivery model, supported by the National Technical Education Network, enables more than 2,000 ADF personnel around the country each year to further develop their skills in technical trades and support the advancement of the ADF.

In addition to our world-class TAFEs, Victoria's universities support research and development, innovation, engagement and productivity enhancements to support Victoria's defence industry.

The Australian Government's acquisition of defence capabilities over the next decade will unlock new opportunities and drive jobs and innovation. However, the growth of the defence industry is not possible without a highly skilled and diverse workforce.

I look forward to exploring new partnership opportunities between the Commonwealth government, industry, education institutions and training providers which will continue strengthening Victoria's workforce and delivering the critical skills required by the defence sector and broader supply chain.



Professor Regina Crameri PhD GAICD Victorian Defence Industry Advocate

# Victorian **Defence** Industry Advocate **Foreword**

In my capacity as the Victorian Defence Industry Advocate (VDIA) and Defence Council Victoria (DCV) Chair, I have had the honour of working closely with Victorian defence industry.

I continue to be amazed by its capabilities, ingenuity, resilience and desire to collaborate. Victoria has over 2,500 businesses that are involved either directly or indirectly across the defence supply chain in areas as diverse as professional scientific and technical services, advanced manufacturing, education and training and other enabling functions1.

Many of these businesses have diversified from an initial presence in market sectors that include transport, logistics and renewables. Capability uplift from their involvement with the Australian Government Department of Defence (Defence) delivers flow on societal and economics benefits to these adjacent sectors and the state that far exceed their defence outputs and industrial contributions to the national sovereign industrial base.

The geo-strategic environment within the Indo-Pacific region has changed. These circumstances have fundamentally altered the capability needs of the Australian Defence Force and allied militaries. The Australian Government's messaging to defence industry on the opportunities and requirements for participation has been clear. The capability priorities articulated in the Integrated Investment *Program*, have in some cases been reoriented to focus defence industry on the needs of the primary customer. In addition, the AUKUS trilateral security partnership offers companies with the advanced technologies required by allies, access to markets at a scale not accessible in Australia. While participation may require businesses to invest in uplifting their capabilities, Victorian businesses have previously demonstrated their readiness to participate in global supply chain programs and these experiences have prepared them well. The longstanding commitment and adaptability of Victorian industry means they are well placed to leverage and prosper from these evolving opportunities.

This Vision articulates the Victorian Government's commitment to the sector and industry's critical role. Victoria's contribution is essential to deliver Australia's defence and security needs. Victorian industry has a rich heritage supporting Defence and is highly regarded both nationally and internationally as a capable, reliable and trusted partner.

Some of the changes in capability priorities and industry policy require support for industry to navigate. The Victorian Government stands prepared to work with stakeholders and support Victorian industry to increase their competitiveness. As the Victorian Defence Industry Advocate, I look forward to continuing to work closely to advance the interests of Victorian defence industry, the state, and to contribute to our national and international security objectives.

<sup>1.</sup> ABS, Australian National Accounts, Input-Output Tables, 2021-22 financial year & ABS, Australian Defence Industry Account, 2022-23 financial year



# Victoria's defence sector by 2030

The Victorian Defence Vision

Victoria is a global defence and national security powerhouse that delivers critical capabilities and workforce talent for Australia and its partners.



# Strategic Focus Areas



#### Target 1: Secure Australian and global defence investment

- **Identify and strengthen** the pipeline of opportunities.
- Leverage Australian Government funding to support projects locating in Victoria.
- **Enhance** supply chain impacts and data measurement to track and win new work.
- **Embed** industry expertise and insights in the development of policies and programs.
- **Expand** and build upon the strong capabilities in regional Victoria.
- Collaborate with strategic partners to accelerate development of cutting-edge defence capabilities.



#### Target 2: Grow Supply chain uplift and resilience

- **Deliver** programs to bolster SME capacity to participate in supply chains.
- Support SMEs to enter defence markets through capability uplift, accreditations and export-ready programs.
- **Connect** SMEs to national and global defence stakeholders, expertise and work programs.
- **Export** Victorian inputs and capabilities into global markets and platforms.
- **Build** supply chain resilience in adjacent sectors to win work beyond defence programs.
- **Develop** and expand clusters and precincts across metropolitan and regional Victoria.
- **Leverage** existing operational Defence assets as key locations for developing new technologies and supporting industry capability.



#### Target 3: Train Build critical skills

and foster innovation and research and development

- Identify and address critical skills gaps and training opportunities.
- **Deliver** engineering / degree apprenticeships focused on defence industry skills.
- Commercialise Victorian research and development and translate this into defence applications.
- **Leverage** investment in workforce skills development to increase diversity and inclusion.
- Promote STEM and career pathways in defence.
- Advocate across jurisdictions to up-skill and attract skilled workers to build a sovereign, capable industrial workforce.



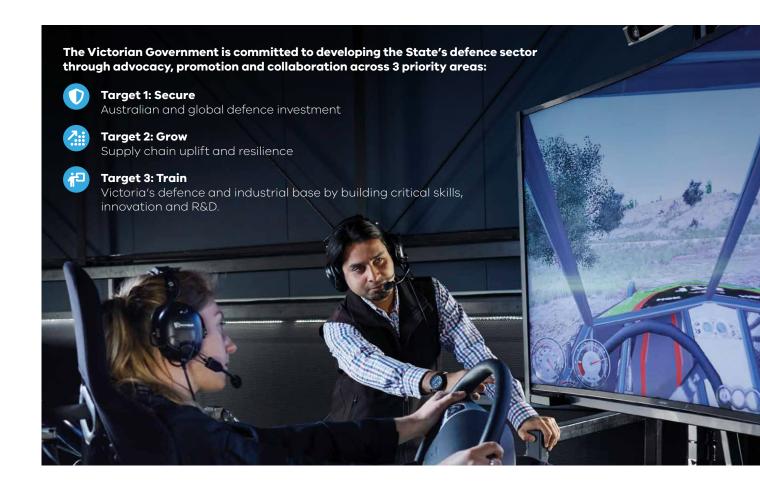
The Australian Government will spend \$765 billion on defence over the next decade, presenting a significant opportunity for Victoria to secure substantial investment and trade outcomes, including high-value jobs, capital investments, exports, skills and innovation.

There has also been a substantial increase in alobal defence spend – with the US anticipated to increase expenditure by 2.6% to US\$ 842BN<sup>2</sup> and UK by 4.5% to £57.1BN $^3$  – with Australian and Victorian firms supporting the supply chain with these and other global partners.

This investment represents a major opportunity for Victorian industry. The State has nation-leading defence capabilities, with a broad advanced manufacturing supply chain, enviable workforce talent, and defence-related research and development (R&D).

The Victorian Government, through the Economic Growth Statement, is committed to growing the defence sector to create more skilled jobs and attracting major capital investments to the State. This will strengthen the skills development, supply chain and R&D capabilities that underpin this industry for years to come. This commitment is outlined by this Victorian Defence Vision Statement, which outlines the State's agenda to achieve this goal and drive broader economic development outcomes for this industry and adjacent sectors.

The State is actively working with key industry, government and education provider stakeholders in Australia and globally to identify key sectors and technologies that are critical for national security. such as advanced materials, semiconductors, and artificial intelligence. This includes a focus on attracting foreign trade and investment in strategic sectors while safeguarding sensitive technologies. This is underpinned by national and global partnerships to coordinate trade and investment in defence and critical technologies.



<sup>2.</sup> US Department of Defense, 'Defense Budget Overview: Fiscal Year 2024 Budget Request', 14 March 2023

<sup>3.</sup> UK House of Commons Library, 'UK Defence Spending', Accessed 15 October 2024, https://commonslibrary.parliament.uk/researchbriefings/cbp-8175/





This includes around \$330 billion from 2024 to acquire and sustain capability priorities outlined in the Integrated Investment Program (IIP).

With national and international defence spending at record levels, Victoria is well placed to partner with global supply chains and deliver capability at a scale that cannot be achieved in the domestic market alone.

The Defence Strategic Review identified that insecurity in the Indo-Pacific is leading to reduced warning times for conflict. This assessment informed the National Defence Strategy, released in April 2024, which outlined the growing need to build national resilience in Australia's defence industrial base and highlights the increased demand for defence-related goods and services.

Leveraging this opportunity will help uplift Victorian industry capability and create strategic partnerships and alternative markets for companies, which can build resilience to manage fluctuations in local and global markets.

It also stimulates industry growth across the broader economy, enhancing trade and investment outcomes, skills development and research and development expenditure.

Importantly, it contributes to a more productive economy, with cutting-edge equipment and transferable skills applicable to multiple dual-use applications in the national and global innovation ecosystem.

AUKUS – a trilateral defence agreement between Australia, the UK, and the US announced in March 2021 – offers major opportunities for Victorian companies. Our supply chain has key capabilities for this generational national endeavour, with competitive strengths for both AUKUS Pillars: (1) nuclear-powered submarines, and (2) advanced capabilities, such as cyber, AI, quantum and hypersonics.

#### **AUKUS Pillar 1**

Pillar 1 will support Australia in acquiring conventionally armed, nuclear-powered submarines (SSNs), and Pillar 2 focuses on expediting cooperation in critical technologies. AUKUS Pillar 1 represents a program worth up to \$368 billion that will focus on:

- extending the life of in-service Collins Class diesel-electric submarines
- acquiring US-built Virginia Class nuclearpowered submarines
- design, development and construction of SSN-AUKUS nuclear-powered submarines in Australia.

Victoria's advanced manufacturing, defence-related R&D, workforce and supply chain capabilities mean it is likely to secure significant job opportunities in the design, development, manufacture and sustainment of the SSN-AUKUS fleet and other AUKUS capabilities. The State has over 500 businesses with the capabilities to provide goods and services for SSN-AUKUS. Victoria's workforce and education sector (tertiary and VET) will also secure long-term opportunities from SSN-AUKUS, which is expected to create 20,000 Australian jobs over 30 years.



#### **AUKUS Pillar 2**

AUKUS Pillar 2 – Advanced Capabilities will develop and provide joint military capabilities to promote security and stability in the Indo-Pacific Region.

This includes establishment of the Advanced Strategic Capabilities Accelerator (ASCA), a lead agency in delivering Emerging and Disruptive Technologies, which have a close connection to Pillar 2 activities. Early Pillar 2 activities that Defence is actively soliciting solutions from industry for include autonomous systems, information warfare and quantum technologies.

Victoria has leading companies in these sectors, including ARKEUS, Babcock, BAE Systems Australia, Diamond Defence, Lockheed Martin, SYPAQ and Textron Systems.

#### **Advanced Capabilities**

AUKUS Pillar 2 focuses on 'disruptive technologies' providing an 'asymmetric advantage', including:

Artificial Intelligence & Autonomous Systems

Hypersonics & counter hypersonics

Quantum technologies

Undersea capabilities

Cybersecurity

Electronic warfare

# Diamond Defence: Building Capacity for AUKUS Pillar 2

#### O Pre-2021

Diamond Defence set a goal to become Australia's first sovereign fibre-optic manufacturer that is AS9100D certified.

#### 0 2022-23

Through participation in the Victorian Government's SCUP program, Diamond Defence was able to gain AS9100D certification and funding for facility upgrades.

#### 2023

Through SCUP, targeted introductions and industry development activities, Diamond Defence catalysed its defence business.

#### **Early 2024**

This capability uplift supported Diamond Defence to apply for Advanced Strategic Capability Accelerator (ASCA) Grants to deliver AUKUS Pillar 2-related quantum programs.

#### Nov 2024

Diamond Defence was awarded \$3.2M by ASCA to deliver quantum capabilities, one of six Victorian SMEs and research organisations to be awarded grants in their November 2024 round.





#### **Babcock International Engineering** and Technology Hub

Babcock Australasia established a new International Engineering & Technology Hub (Hub) in Melbourne to drive defence, aviation and critical services operations across the Asia-Pacific region.

Supported by the Victorian Government, the \$3.5 million state-of-the-art facility will play a pivotal role in delivering cutting-edge technology solutions for national and international programs in the defence sector and ancillary sectors such as advanced air mobility.

Key projects and initiatives supported by the Hub include:

- developing advanced AUKUS Pillar 2 related capabilities in autonomous surveillance, strategic communications and undersea systems
- systems engineering, integration and testing to support regional high-frequency communications, and growing global capability in complex systems development
- design and build support for Babcock International's Type 31 Frigate program
- innovations in autonomy, artificial intelligence and electric and hydrogen-powered aircraft.

The availability of a highly skilled engineering and technical workforce was one of Babcock's key considerations in selecting Victoria as its preferred location for this international hub.

"This leading facility will enable the delivery of complex and bespoke technical solutions to both the Australian Defence Force and our allies around the world, particularly around AUKUS Pillar 2, which relies on the combined industrial might of the trilateral partners to deliver interoperability and advanced capabilities."

**Andrew Cridland** Babcock Australasia CEO

# Guided Weapons and Explosive Ordnance (GWEO)

The GWEO Enterprise could represent around \$100 billion over the coming decades and is Defence's second largest acquisition, after AUKUS Pillar 1. Victoria provides compelling benefits for GWEO proximity to key infrastructure (see the Map on page 19), a highly capable workforce, innovative supply chain across all domains, including munitions and aerospace, and strong relationships and physical offices with overseas industry partners.

# Sovereign Defence Industrial Priorities (SDIPs)

Growing strategic tensions have led Defence to transition to an integrated and focused force. Australia's – and indeed Victoria's – Defence industry is essential to delivering and sustaining the capabilities Defence relies on. These priorities – which are underpinned by other reforms and a growing focus on procurement, workforce development, innovation and industry engagement – outline national priorities to develop Australia's sovereign defence industrial base required to meet our national security requirements.

#### Victoria's contributions to delivering cutting-edge Defence priorities

overhauland upgrade of Australian Defence Force aircraft Test and evaluation, Continuous **Naval** certification and Shipbuilding systems assurance Sovereign Defence **Industrial Priorities** Battlespace awareness Sustainment and (DSIPs) and management enhancement of the systems integration and enhancement combined-arms land system **Domestic GWEO** and Integration of manufacturing **Autonomous Systems** 





Over the last decade, Victoria's economy has grown in relative terms faster than any other state. This is driven by our talented workforce, dynamic businesses, peerless calendar of events, and world-leading universities.

This proud tradition of innovation, ambition and excellence is exemplified by Victoria's defence industry, which is renowned for its highly skilled workforce, cutting-edge R&D and strong supply chain – all essential inputs for developing and sustaining national and global defence capabilities.

These attributes drive investment, exports, innovation and jobs – fostering productivity gains across Victoria's defence industry and the broader advanced manufacturing ecosystem, such as for digital technologies and cybersecurity, health, renewables, rolling stock and advanced air mobility.

Victoria's competitive advantages position us to make a major contribution to AUKUS Pillar 1 (nuclear-powered submarines) and Pillar 2 (Advanced Capabilities), the GWEO Enterprise and other major defence programs. Doing so will attract capital investment, jobs, R&D investment and innovation to the State.

## Manufacturing

- \$39.2 billion sector
- \$11.2 billion exports
- Over 275,000 workers more than any other state
- 6% of Victoria's GSP.

#### Victoria's defence sector

- \$10.9 billion in direct annual Department of Defence expenditure, delivering \$4.9 billion in Gross Value Added benefits across the supply chain
- 29,000 workers
- \$1.7 billion in annual exports
- \$210 million in annual R&D.

## Victoria's leading strengths

- Aerospace platform design, engineering and manufacturing
- Land vehicle design, engineering and manufacturing
- Maritime and submarine design, engineering and R&D
- Munitions infrastructure, componentry and assembly
- Skilled workforce and nation-leading universities and industry-connected TAFEs
- Cutting-edge industry and R&D collaborations
- Advanced manufacturing of precision components
- Development of software intensive systems.



# Key defence infrastructure and industry capabilities

Globally, defence spending is increasingly concentrated around specialised precincts, where industry, defence and tertiary institutions co-locate to drive productivity and innovation. With around 25% of Australia's population from only around 3% of Australia's landmass - backed by a well-connected network of passenger and freight road, rail and port infrastructure -Victoria offers a number of strategic locations to leverage defence assets, research institutions and a highly skilled workforce.

The map on page 19 provides a non-exhaustive snapshot of industry, research and R&D clusters in Victoria that will only grow as a result of increasing defence acquisition, investment and supply chain development in Australia and globally. These precincts and assets offer an opportunity for strategic partnerships between Defence, industry and tertiary providers unlocking significant potential for innovation, technology transfer and workforce development.

#### Fishermans Bend

Fishermans Bend hosts several defence and aerospace companies including Boeing Aerostructures Australia, Leonardo Australia, QinetiQ, Supacat and SYPAQ and is home to a key Defence, Science and Technology Group (DSTG) facility which focuses on aerospace and maritime R&D activities.

The Victorian Government is also developing the Fishermans Bend Innovation Precinct which will be home to University of Melbourne's new engineering campus.

#### The Australian Manufacturing and Materials Precinct (AMMP)

Based in Clayton, the AMMP is a major hub for industry and research organisations to connect, collaborate and focus on research commercialisation and workforce development.

The AMMP is home to Monash University, the centre for CSIRO's materials, manufacturing and engineering research, the Australian Synchrotron and Melbourne Centre for Nanofabrication.

#### Cremorne Digital Hub (CDH)

Cremorne is set to be the heart of Victoria's digital economy, transforming from a manufacturing centre to a magnet for high-tech businesses and innovation jobs. More than 700 businesses and around 10,000 workers are already based in the precinct.

Established in 2023, the CDH brings together industry, universities and investors to enhance collaboration, accelerate research and skills development, build capacity and increase productivity in the precinct and Victorian digital ecosystem.

#### City of Greater Geelong

The regional city of greater Geelong presents significant advanced manufacturing, research and development opportunities for the defence and aerospace sector. This includes ManuFutures – an advanced manufacturing innovation hub located within Deakin University's Future Economy Precinct, the Avalon Airport precinct, Hanwha Armoured Vehicle Centre of Excellence, Point Wilson Wharf, the Advanced Fibre Cluster and Deakin University.

#### Latrobe Aerospace Technology Precinct

The Latrobe Aerospace Technology Precinct (Precinct) is located at the Latrobe Regional Airport, one of Victoria's premier regional airports approximately 150km east of Melbourne, Australia.

The Precinct offers flexible facilities, offices and infrastructure to accommodate various research and development, testing and manufacturing activities, through a partnership's ecosystem approach across start-up and Small-to-Medium Enterprises (SMEs) companies in zero-emissions aviation, traditional aerospace as well as academia.

Other strategic locations in the broader Gippsland and Wellington Shire region include the West Sale Airport, which supports existing operations at RAAF Base East Sale. West Sale Airport will undertake work in the coming months to identify operations to expand support for the Defence sector.



defence and aerospace ecosystem.



# Target 1: Secure Australian and global defence trade and investment

Over the next decade, an estimated \$330 billion of contestable projects will be available across Australia and Victoria is well-placed to secure and deliver outputs as part of this investment.

Victoria's strengths in cybersecurity, artificial intelligence, quantum and hypersonic technologies mean we are well positioned to capitalise on opportunities in the defence and aerospace sector.

Projects such as LAND 400 Phase 3 and LAND 8116, both won by Hanwha Defence Australia (Hanwha), have prompted significant growth in the activities of Victorian-based Prime contractors and supply chain businesses.

Similarly, GWEO and AUKUS Pillar 1 will result in more business for current Victorian suppliers in these domains, while attracting a new or expanded footprint by national and global entities to the State. This growth is being facilitated by Victorian Government agencies to ensure a smooth transition for new market entrants and secure these activities for years to come.

Already home to Australia's highest value defence armoured vehicle procurements, capturing defence investment will accelerate advanced technologies and innovation to foster dual sector applications in areas like renewables, transport and advanced air mobility.

Victoria's defence export programs include:

- BAE Systems Australia's Nulka active missile decoy – Australia's most successful defence export program
- Thales Australia Bushmaster vehicle exports to 8 nations globally from Bendigo
- NIOA ammunition manufacture at Benalla
- SYPAQ exports of drone systems to Ukraine from Fishermans Bend.

Victoria is proud to host to major international defence Primes and Tier 1s, including BAE Systems Australia, Boeing, Hanwha, L3 Harris, Leidos, Lockheed Martin, Moog, NIOA, QinetiQ, Saab and Thales Australia.

In recent years, Victoria has secured major expansions from companies like these, including these projects have helped to deliver thousands of Victorian jobs.

#### Leidos

Software Factory Airborne Search and Rescue Intelligence, Surveillance and Reconnaissance Digital e-Health



#### Lockheed Martin

R&D Hub Advanced Manufacturing Pilot Training



#### Segula

Delivering technology capabilities and services



#### Hanwha

Manufacturing Huntsman and Redback vehicles at \$170M H-ACE in Geelong



#### Babcock

Cutting-edge defence engineering hub AUKUS Pillars 1 & 2

## babcock\*

#### Saab

Sovereign Naval Combat combat systems Deployable health and infrastructure solutions



#### **SYPAQ**

Defence Autonomy Centre of Excellence Delivering world-leading UAS capabilities



#### **Corvus Technology Solutions**

\$100M project to deliver Redback suspension units for Hanwha



#### Diamond Defence

Quantum technologies development for ASCA



#### Arkeus

Autonomous Optical Solutions R&D Hub



# International engagement

Victoria has the largest international trade and investment network of any Australian state or territory with 23 international offices across the globe. This presence delivers significant value to our state through trade, investment, and global engagement, with every \$1 invested in the network returning \$40 to the Victorian economy.



### **Export facilitation**

Victoria's nation-leading advanced manufacturing capabilities and defence-related research and development expertise has meant Victorian companies have a strong history of exporting into major defence projects worldwide.

Over the past decade, Victorian companies including AW Bell, Marand and Rosebank Engineering have secured 65% by value of all contracts awarded within Australia for the F-35 project. Thales Australia's Bushmaster Protected Mobility Vehicles, manufactured in Bendigo, have been successfully exported to eight countries.

The Victorian Government, through Global Victoria, provides defence companies with one-on-one trade facilitation to support exporters onshore and offshore trade specialists. This support also includes encouraging and supporting local companies to participate in Australian Department of Defencefunded programs, such as the Team Defence Australia (TDA) initiative. TDA supports Australian companies to exhibit at major international defence shows and is a cost-effective option for companies looking to export their products and services.

Through our international network, and along with counterparts from the Department of Defence and Austrade, Victorian Government staff support the companies to exhibit and grow their export opportunities at these major global trade shows.

#### **ARKEUS**

The Victorian Government has been an outstanding partner to support ARKEUS' audacious ambition. To disrupt the world of AI and autonomy, providing support quickly is critical to our success.

The Victorian Government has consistently been on the front foot - from grants to establish a world leading development hub for autonomous optical systems; to on-theground connections with key customers in the US and Europe; to providing access to key trade shows and events; and advice and support for traversing export challenges, cyber security and Government compliance.

ARKEUS could not be more grateful for this assistance and is excited to create large numbers of world leading high technology opportunities and jobs in Victoria.



#### Making global connections at home

Trade expositions are a vital opportunity for Victorian companies to engage key Australian and global businesses, military personnel and other stakeholders in the defence, aerospace and space sectors – providing opportunities for Primes, Tier 1s and SMEs alike.

Victoria is the only state to host two of the Asia-Pacific's largest defence expositions:

- Australian International Airshow and Aerospace and Defence Exposition (Avalon Airshow); and
- Land Forces International Land Defence Exposition (Land Forces).

In addition to hosting these events, the Victorian Government runs a Pavilion, which facilitates delegations, business-to-business matching and provides meeting rooms, booths and other amenities for Exhibitors.

Bringing senior decision makers from Australia and overseas to one place serves as a catalyst for business development opportunities for established industry players and new market entrants.

#### **AVALON 2023**

794 exhibitor companies

248,000 visitor attendances

281 official delegations from 38 nations

#### **LAND FORCES 2024**

995 exhibitor companies

25,675 visitor attendances

240 delegations from 41 nations

### **Export Case Study**

#### Marand

Marand is a precision engineering firm that designs and manufactures complex equipment, series production of platform structures, tooling and bespoke solutions for the defence, aerospace, automotive, rail and energy industries.

The company employs over 300 people and has hundreds of Australian companies in its supply chain and operates manufacturing sites in metropolitan Melbourne and regional Victoria, as well as operations in the UK and US.

Marand supplies major defence companies, including Lockheed Martin, BAE Systems Australia, Boeing, Kongsberg, Rolls Royce and Rheinmetall. The company's reputation as an export success story is exemplified by successes across multiple domains of defence including exporting:

- Rheinmetall's global Boxer Combat Vehicle programs
- the Vertical Tail and Engine removal and installation trailer for Lockheed Martin's F-35 Joint Strike Fighter
- critical aerospace tooling and production systems for Aerospace manufacturers.

### **Export Case Study**

#### **SYPAQ Defence Autonomy Centre of Excellence**

In 2021, with Victorian Government support, SYPAQ established a new Defence Autonomy Centre of Excellence (DACE) in Fishermans Bend to innovate and manufacture small to mediumsized autonomous systems for the defence sector. The DACE will also support complimentary adjacent sectors such as cybersecurity, artificial intelligence, electronic warfare and counter-UxS technologies.

The DACE has been instrumental in SYPAQ's efforts to develop a range of sovereign autonomous systems, including the Corvo Precision Payload Delivery System (PPDS).

Developed in Melbourne in partnership with the Australian Army, the Corvo PPDS is a highly innovative and low-cost cardboard drone solution that can deliver supplies and equipment to areas unreachable by traditional logistics systems. More recently, SYPAQ announced the export of the Corvo PPDS to support Ukraine.

"It is an honour to be supporting the Ukrainian Armed Forces."

Amanda Holt CEO SYPAQ



"This capability is the result of an innovation journey with Army and the Defence Innovation Hub and demonstrates the importance of collaboration between Defence and industry on capability development."

Amanda Holt CEO SYPAQ



# Target 2: Grow defence supply chain ecosystem

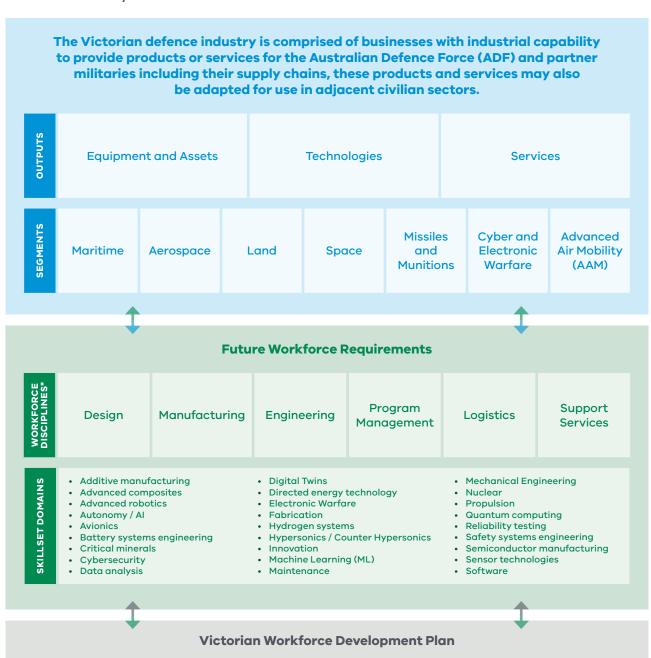
Defence and aerospace SMEs form a backbone of Victoria's broader advanced manufacturing ecosystem, and our State has over 2,500 businesses capable of providing goods and services for defence-related projects. Innovation and technology development in the defence sector is a critical enabler to improve Victoria's industrial competitiveness and provides dual-use capabilities with broad applicability for adjacent industries in the State's advanced manufacturing ecosystem. This provides positive flow-on effects for zero-emissions and emerging aviation, medical, renewables, mining, rolling stock, cybersecurity and other digital technologies.

While the Department of Defence sets Australia's national strategy and capability acquisition priorities, proactive leadership by states, territories and industry partners can lock in thousands of secure, highly skilled jobs and billions of dollars of capital expenditure over the coming decades.

Regional Victoria has a significant ADF presence which offer significant economic and social benefits to local businesses, educational institutions and communities. For example, the Hume Region hosts Victoria's largest ADF presence, incorporating a wide range of businesses with demonstrable potential in servicing the Defence supply and support chains.

There are also opportunities to grow and enhance the sector, leveraging existing Defence footprints, assets and relationships to provide world class Defence capabilities.

#### **Defence Industry and Workforce**



<sup>\*</sup> As per the Defence Industry Skilling and STEM Strategy.



#### Hanwha and the Victorian Land Systems Fund

Hanwha has seen significant growth in its defence capabilities and investment opportunities in Victoria due to its participation in key Defence programs, including:

- LAND 8116 Program (\$1 billion): to procure the 'Huntsman' Self-Propelled Howitzers and Armoured Ammunition Resupply Vehicle, announced on 13 December 2021
- LAND 400 Phase 3 Program (\$5-7 billion): to deliver 129 'Redback' Infantry Fighting Vehicles (IFVs) for the Australian Army's largest ever acquisition program, announced on 26 July 2023.

Hanwha's LAND 8116 and LAND 400 Phase 3 contracts are the largest defence deals with an Asian nation and resulted in Hanwha's \$170 million Armoured Vehicle Centre of Excellence (H-ACE) being established at the Avalon Airport Industrial Precinct in Geelong.

A key consideration that influenced Hanwha's decision to invest in Victoria was the availability of a skilled workforce, nation-leading supply chain and connections with university and TAFE providers - demonstrated by the company's reaching Memoranda of Understanding with Gordon TAFE and Deakin University.

These strategic assets – which continue Victoria's legacy as a leader in land systems – will help position Hanwha to build cutting-edge platforms for the Australian Defence Force and future alobal customers.

This result follows long-term engagement by the Victorian Government to identify how Hanwha can invest and grow in the State, including by introductions to supply chain partners, site selection and targeted stakeholder engagement, liaison and coordination across government, universities, and other training providers.

Under the Victorian Land Systems Fund Supply Chain Uplift Program (SCUP), Victorian businesses can apply for grants to improve their defence capabilities. The SCUP provides 1:1 co-funded grants to support Victorian businesses to expand, innovate, test new products and increase their chances of winning defence contracts.

Businesses interested in participating in SCUP can apply here: business.vic.gov.au/scup.

Funding is also available to larger suppliers to Hanwha under the Victorian Land Systems Fund, who are looking to create jobs in Victoria and expand their activities.

#### **Corvus Technology Solutions**

Corvus Technology Solutions (CTS) deliver sovereign, innovative, end-to-end services to defence customers. Their Melbourne based facility delivers localised manufacturing, precision machining, precision assembly and integration, testing capabilities, project management all with the reach and depth of their extensive Corporate Global Supply Chain.

CTS were awarded a Victorian Government grant under the SCUP program to help improve their security posture and regulatory compliance. These accreditations helped them engage more meaningfully with Hanwha as a trusted and reliable supply chain partner.

In July 2024, CTS secured the Hanwha contract to manufacture nearly 2000 suspension units for the Redback IFV. Valued at \$100 million this contract makes CTS one of Hanwha's top suppliers for the LAND 400 Phase 3 project.

# Supporting Adjacent Sector Supply Chains

### Space

Victoria has approximately 250 space-related science and technology companies based here, supported by world-class research and development expertise.

Many Victorian commercial and research and development organisations have established relationships with international space agencies such as NASA, the UK Space Agency, the Japanese Space Agency, Italian Space Agency and the German Aerospace Centre.

Victoria's defence sector offers significant capabilities to support growth of the national space sector. This includes capabilities to support:

- manufacturing of satellite and rocket componentry, lunar rovers, and other ground and space mission equipment
- design, development and manufacture of space instrumentation
- complex data processing for analysis of earth observation, sensing and other scientific data
- development of advanced materials and coatings
- testing and modelling capabilities for satellite missions
- space technology commercialisation and highly skilled workforce.

## Advanced Air Mobility (AAM)

The defence sector is a critical enabler for other adjacent sectors, such as AAM, that will unlock zero-emission capabilities across logistics, service delivery, emergency services, regional connectivity and passenger transport. As a zero-emission transport mode, AAM will also support the decarbonisation of our society and support Victoria's Climate Change Strategy target of net zero by 2045.

The Victorian Government is committed to unlocking AAM ecosystem development opportunities in Victoria that will deliver economic, societal and environmental benefits to Victorians, consistent with the AAM Industry Vision Statement (2022) and AAM Action Plan (2024).

Defence sector investment will contribute to the uplift of critical technologies required to support AAM industry development, including:

- manufacturing, design, components and industrial capability
- clean energy & hydrogen fuel cell development
- lightweight materials, carbon fibre and composites
- battery systems and storage
- electric motors, generator and electronics
- avionics, digital hardware, software and data services
- communications, navigation and surveillance systems and services.



# Target 3: Training, skills and research and development

Training and skills development is essential to ensure Victorian workers and businesses can participate in critical upcoming projects including AUKUS and GWEO.

Most of these skills can be delivered by existing Australian tertiary and vocational education providers. However, a significant investment and commitment across the sector and from these institutions is required to deliver these national undertakings.



#### **Defence Science Institute**

In 2010, the Victorian Government established the Defence Science Institute (DSI) in partnership with the University of Melbourne, and the Defence Science and Technology Group. The DSI supports the development of Australia's defence technology and national security industry, facilitating connections and relationships between industry, universities, funders and Defence researchers.

Taking a regional and multi-disciplinary approach to the defence and national security sector, DSI focuses on fostering defence research engagement by:

connecting defence and industry to research and development expertise

- promoting and showcasing research and development and innovation capabilities in the public and private sectors
- identifying defence-relevant research and technology development opportunities
- providing advice on the local and international defence research and development environment.

Since its establishment in 2010, DSI has secured over \$150 million in research and development funding to create a cutting-edge defence and science community in our State.

# Victoria's dynamic and innovative TAFE Network

Victoria TAFE Network comprises of 12 standalone TAFEs and 4 dual-sector universities, located across metropolitan and regional Victoria.

The Victorian TAFE Network brings deep expertise in partnering with industry, and universities, around the design and delivery of emerging skills, training and applied research. The Victorian Government has invested more than \$4.6 billion in skills over the past decade in support of TAFE and higher education. In addition, the Victorian Budget 2024-25 will invest another \$555 million in TAFE to extend Free TAFE access and train more apprentices and trainees.

The TAFE network also has a track record in supporting access for diverse and underrepresented Victorians into jobs – including First Nations communities, people with disability, and women in non-traditional trades. The TAFE Network has existing partnerships with the defence sector, and can bring emerging specialisations in engineering, advanced manufacturing to future collaborations.



#### **Wodonga TAFE**

A decade-long partnership between Wodonga TAFE and the ADF is a prime example of Victoria's leadership in defence-related skills development. As the ADF's largest vocational educational provider, Wodonga Institute plays an important role in supporting the defence sector within the region and across Australia, providing technical trades, heavy vehicle and plant machinery and medic training.

In 2023, Wodonga TAFE secured a new contract with the ADF (valued at \$300 million over 5 years) to expand its training offerings to include both Navy and Army. This will enable thousands of sailors and soldiers to extend their skills in technical trades in the locations where they work and live.

A National Technical Education Network has been set up which includes training providers across Australia, and Wodonga TAFE is leading delivery of over 100 accredited and non-accredited courses across construction, engineering, mechanical, electrical and electronics trades to more than 2,000 defence students per year.

## Victorian Skills Plan

The annual Victorian Skills Plan (VSP) provides important data, insights and advice to help meet Victoria's current and future workforce needs.

Defence and supporting sectors such as advanced manufacturing and information technology rely on a wide range of skills for occupations such as mechanics, welders, engineers, IT specialists, truck drivers, and medical practitioners.

Rapid technological advancements in these sectors mean that skilling and upskilling in areas such as cybersecurity, robotics and data analytics will also be important to foster sovereign capability.

Victoria's VET sector, led by its TAFE network, plays a fundamental role in training people for the broad defence sector.

The series of Skills Plans include several recommendations to train a highly skilled workforce who is adaptable to changing skills needs in sectors like defence, including:

- re-designing VET qualifications so graduates can transition between sectors like defence, advanced manufacturing and other supporting industries
- strengthening recognition of prior learning to enhance worker mobility and formal accreditation of existing skills and experience
- expanding training opportunities through skill sets and micro-credentials
- responding to rapidly changing digital skills needs, including building advanced cybersecurity skills to protect sensitive information and national interests
- embedding applied research in TAFE education to support R&D in emerging industries
- boosting participation in VET for women, First Nations peoples and people with disability.

# Australia's top universities

Victoria is home to 9 public universities, including 2 universities in the top 50<sup>5</sup> - the University of Melbourne, Australia's highest ranked university, and Monash University.

In addition, 4 of Australia's 6 dual-sector universities (delivering higher education and VET) are based in Victoria: RMIT University, Victoria University, Federation University and Swinburne University of Technology.

Victoria is Australia's most highly skilled state and a hub for innovation and specialist defence knowledge. Its skills base is a key competitive advantage and will help address the global challenge of providing new skills and workers required to deliver upcoming defence projects.

Over half of all Victorians aged 20-64 hold some form of post-secondary qualification, with over 43% of Victoria's labour force holding a university degree – higher than any other state in Australia.

We generate approximately one-third of Australia's graduates from critical disciplines, including:

- a rapidly growing digital technology sector in Australia, with over 279,000 tech professionals and 30% of the national technology workforce
- the most skilled professionals in manufacturing in Australia and the second highest number of engineering professionals in advanced manufacturing.

5. QS World Rankings 2025



# Research & Development

One of the key pillars supporting the state's defence sector is Victoria's strength in research and development. Victoria's defence industry invests over \$210 million in R&D annually, with \$75 million in defence R&D being undertaken at Victorian universities each year.

With internationally recognised research institutes and organisations supported by a world class tertiary education sector including:

- Centre for Advanced Defence Research and Enterprise in Operating in Chemical, Biological, Radiological and Nuclear Environments (CADRE-OCE) at the University of Melbourne
- The Sir Lawrence Wackett Centre at RMIT University
- Australian Nuclear Science and Technology Organisation (ANSTO) Synchrotron
- DSTG's Maritime and Aerospace Divisions in Fishermans Bend
- DMTC Ltd
- ManuFutures at Deakin University's Waurn Ponds campus
- Swinburne University's AirHub.





#### **BAE Systems Australia's Victorian Operations**

In Victoria, BAE Systems Australia designs, develops, integrates, and tests advanced products and complex systems, delivering critical defence capabilities for air, land and sea domains employing hundreds of engineers across multiple disciplines.

BAE Systems' Victorian team contributes to key defence projects, including Hunter anti-submarine warfare frigates, air warfare destroyer, Jindalee Operational Radar Network, Nulka and Evolved Sea Sparrow Missile.

Recently the teams have launched disruptive autonomous platforms including the ATLAS CCV uncrewed ground vehicle, the STRIX TM uncrewed aerial system and the Razer low-cost, air-launched, precision-guided munition





