



THE HUNTER

NEW SOUTH WALES, AUSTRALIA

A DEFENCE READY REGION

AEROSPACE • LAND • MARITIME • SPACE • CYBER



THE HUNTER REGION

A HUB OF NATIONAL SIGNIFICANCE FOR DEFENCE SUPPORT, SUPPLY AND SUSTAINMENT.

The Hunter is home to Australia's key air combat, battlespace management and missile defence systems. This has driven the development of a sophisticated industry network in advanced aerospace, maritime manufacturing, cyber security, simulation and smart technologies.

UNIVERSITY OF NEWCASTLE

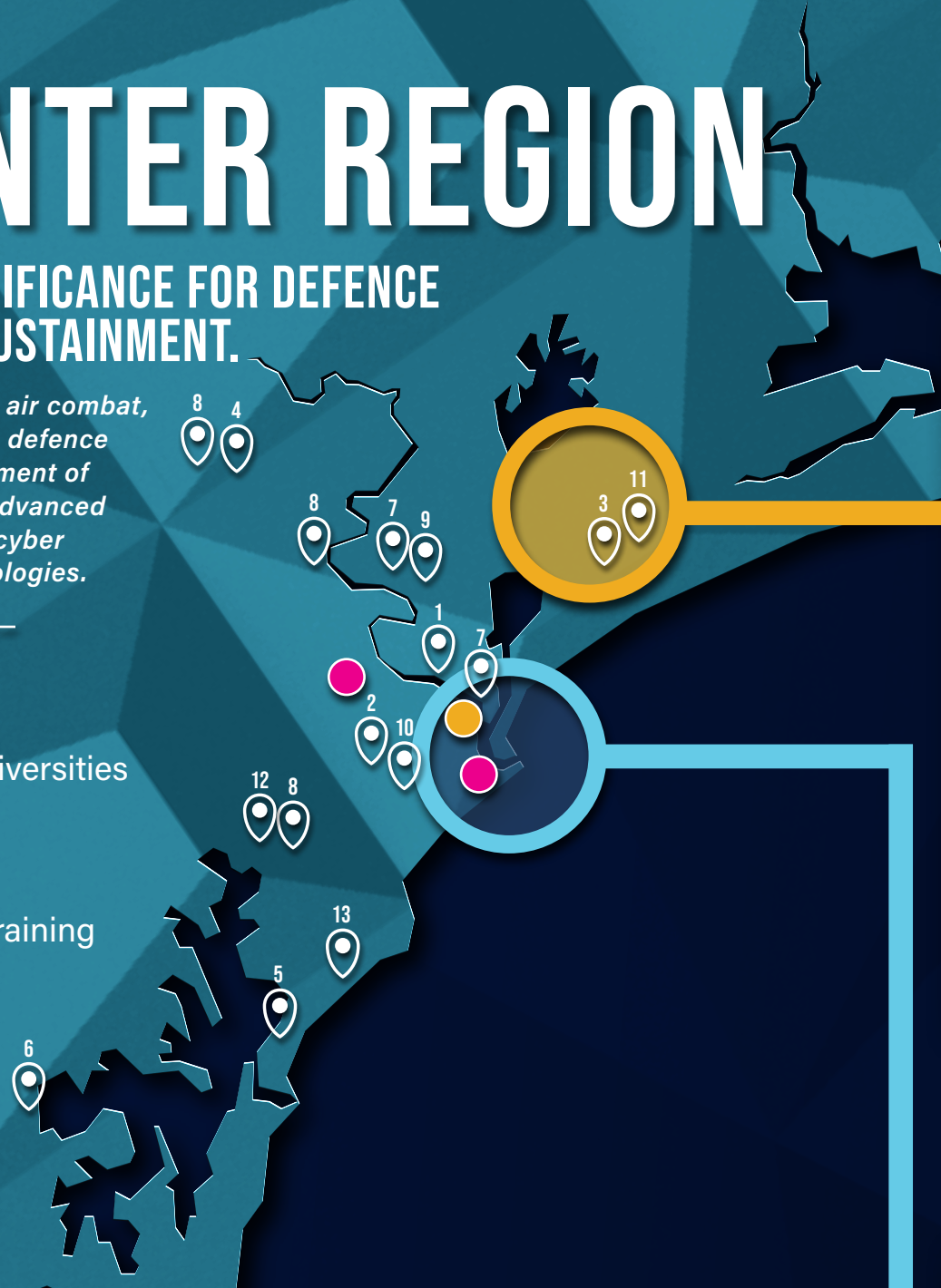
Ranked in top 200 of world's universities

TAFE NSW

High-end vocational technical training

SINGLETON ARMY BASE

Complete infantry training facility



TO SYDNEY
150kms



LEADING REGIONAL INDUSTRIES

1. TWW T.W. Woods	6. unitronix THE ENGINEERING GROUP	11. Bohemia Interactive SIMULATIONS
2. UGL	7. VARLEY AEROSPACE & DEFENCE	12. NUPRESS GROUP NEW SOUTH WALESE
3. Nova Systems	8. AMPCONTROL	13. SAUNDERS AEROSPACE
4. blue zone GROUP	9. Westrac EAT	
5. GOAL GROUP	10. AVS FACILITIES	



TO PORT MACQUARIE
250km to further ship building capabilities.



RAAF BASE WILLIAMTOWN

Home to the nation's air combat capability.



The world's most uplifting defence, aerospace and innovation precinct.



New South Wales second international airport.

Primes operating within the precinct

BAE SYSTEMS



NORTHROP GRUMMAN

Raytheon



PORT OF NEWCASTLE

The largest port on Australia's East Coast.

THALES



UGL



Hunter Defence is funded by:

The Hunter Defence Task Force within Hunter Defence is a collaborative taskforce focused on demonstrating the capability of established Hunter defence industry suppliers to CASG, ODIS and primes and upskilling local SMEs to become 'defence ready'.



AIR, LAND, MARITIME, CYBER AND SPACE IN THE HUNTER

The Hunter is home to Australia's key air combat, battlespace management and missile defence systems. This has driven the development of a sophisticated industry network in advanced aerospace, maritime manufacturing, cyber security, simulation and smart technologies.

RAAF BASE WILLIAMTOWN

RAAF Base Williamtown is home to the command, operational and support elements of Air Combat Group's tactical fighter force components operating F-35 Joint Strike Fighter, Hawk and PC-21 aircraft. In addition, the Base is home to Surveillance and Response Group's Air Surveillance and Battlefield Management command and support elements, and the E-7A Airborne Early Warning and Control aircraft.

The Base also accommodates elements of the Air Warfare Centre and a number of Combat support Units.

ASTRA AEROLAB

Adjacent to Newcastle Airport and RAAF Base Williamtown, Astra Aerolab is the world's most uplifting defence and aerospace precinct.

Astra Aerolab is at the heart of the Williamtown Special Activation Precinct, one of six such precincts in NSW. Providing streamlined planning and development approvals, the development will attract significant private and public investment.

Nestled next to NSW's second international airport and having secured agreements with a number of leading defence, aerospace and innovation organisations, Astra Aerolab offers Lots with direct airside access and is set to attract tomorrow's global workforce to the Hunter.

LAND

By increasing the Australian Army's capabilities from its position as the strategic goalkeeper in the defence of Australia, and also placing it front and centre in regional anti-access/area-denial capabilities, the government is radically reshaping the Joint Force and the ADF's capabilities. In that context, a number of projects to revolutionise the Army's role are already underway, with much of that support here in the Hunter. Many of these capabilities are being collaborated on with Hunter-based industry and this will increase significantly in the decade to come. These include high tolerance machining, sub-assembly support, AI development, high end military combat systems development and significant Maintenance Repair and Overhaul capabilities.

MARITIME

The Hunter Region has a longstanding shipbuilding capability that supports the construction, operation and maintenance of Australia's modern Maritime capability. Companies such as Cvmec, the operator of the former Forgacs operations, Thales Defence, UGL and Varley Group are all housed in the region as well as the high end capability of BAE Systems, Lockheed Martin Australia and others at Williamtown who manage, day to day, the highest degree of technological advancement that is required in modern Maritime combat systems.

CYBER

Cyber capabilities within the Hunter span the full spectrum from research and development (R&D) through to product creation and deployment, with much of the activity spearheaded by the University of Newcastle (UON). UON is uniquely placed to collaborate with the defence industry, driving breakthroughs that will make positive contributions to both global security and modern life. The institution's projects include:

- Addressing the global demand for faster communications by exploring new protocols for data transmission, including novel data encryption and decryption methods
- Eliminating cybersecurity threats before they cause harm, particularly related to distributed systems and network infrastructures
- Developing new way to manage logistics and supply chains during disaster response.

The University has a track record of success working with industry, government and university partners including Defence Science and Technology, BAE Systems Australia, Lockheed Martin, Microsoft, Data61, World Vision, Emergency Management Queensland and more.

The University is also preparing the future workforce with the advanced skills to excel in defence-related industries, with innovative degree programs such as cyber security, aerospace systems engineering and renewable energy.

HUNTER SIMULATION ALLIANCE

The Hunter Simulation Alliance is a consortium of industry organisations established in the Hunter region covering software, hardware, services, research, marketing, integration and training functions in synthetic support of Australian Defence Force (ADF) capability program requirements and general industry requirements. It has been established to enhance the overall opportunities and reputation of the Hunter region as a leading simulation and synthetic environment node across Australia for Government, Prime Defence industry stakeholders and SMEs and to engage with, and for, simulation/training capabilities and services and greatly enhance supply chain opportunities. It has been recognised by Defence as an emerging cluster. While early days, it is proving very successful with alliance members currently negotiating contracts for HLA support with the two Primes selected for Air 6500, the C4 EDGE project and key roles within the Land Simulation Core project.



SPACE

Assured access to Space is critical to enabling the Department of Defence's multi-domain operations, and as such, the Australian Government has committed to significantly increasing investment in Defence's Space capabilities by investing around \$7 billion this decade to ensure access to Space, Space services, and geospatial information. As part of this focus, Defence is establishing a Space Division headquarters within the Royal Australian Air Force to deliver capabilities including Space domain awareness, sovereign controlled satellite communications, and Space-based Earth observation, and navigation.

Many of these capabilities are being collaborated on with industry in the Hunter Region. Recent projects include initial discussions on the viability of responsive horizontal space launch within the region and partnering and manufacturing in the development of situation awareness technology for Low Earth Orbit systems.

DEFENCE CAPABILITIES

The Hunter Region offers a comprehensive range of Defence capabilities spanning:

AIRCRAFT SYSTEMS

Systems, products and services for the design, manufacture, and operation of assets capable of flight, with primary use in the air environment.

- High tolerance machining
- Systems architecture development
- Artificial intelligence systems
- Virtual and augmented reality systems
- Deployable air mission systems
- High end aircraft maintenance and sustainment capability
- Low observable coating support
- Unmanned system development
- Advanced aerospace consultancy
- World class simulation systems development
- Battlespace management and sensor design and support
- High end composite development.

SPACE SYSTEMS

Systems, products or services for the design, manufacture, and operation of assets with primary use in the outer space environment.

- Responsive Horizontal Space launch
- Low earth orbit situational awareness systems development.

UNMANNED SYSTEMS

Systems, products or services for the design, manufacture, and operation of assets, across all domains, that are either autonomous or remotely controlled. These include unmanned (water) surface systems, unmanned air systems, unmanned ground systems and unmanned underwater systems.

BATTLEFIELD SYSTEMS

Systems and products that provide defensive and offensive warfare capabilities and/or protection to assets across all domains. Includes both detection and protection systems.

- Missile system body development
- Missile seeker head technology
- Missile system integration
- Rocket propulsion systems
- Explosives support, storage and technology development
- Torpedo system development
- Small arms support

LAND SYSTEMS

Systems, products and services for the design, manufacture, and operation of assets with primary use on land environments (*including amphibious environments*).

- High tolerance machining
- Systems architecture development
- Artificial intelligence systems
- Virtual and augmented reality systems
- Unmanned system development
- Advanced land systems consultancy
- Worlds class simulation systems development
- Battlespace management and sensor design and support
- Armour plating systems
- High end composite development.

MARITIME SYSTEMS

Systems, products and services for the design, manufacture, and operation of assets with primary use in a water based (river or sea) environment including:

- Auxiliary Systems
- Combat Systems
- Communications and Surveillance
- Hull Structure
- Naval Vessel Control
- Outfit and Furnishings
- Propulsion Plant
- Ship Assembly and Support Services.

DEFENCE CAPABILITIES IN THE HUNTER REGION ALSO EXTEND ACROSS:

- **Information Systems/Defence Business Systems/Defence Cyber Protection Capability** that relate to Enterprise-wide functionality, processes or services
- **Electronic/Electrical Systems** and their integration with all other subsystems including Communications and Surveillance, Electronic Warfare, Lighting Systems and Power Plant and Supply
- **Common Products and Consumables** that are, in principle, not exclusive to Defence industry (however there may be specific variations exclusive to Defence), but regularly used such as Construction, Assembly and Support, Cybersecurity, Data, Integrated Logistics Support (ILS), Robotics/Cobotics and System Test and Evaluation
- **Common Services and Skills** that are, in principle, not exclusive to Defence industry, but regularly used spanning Business Services, Decommissioning, Engineering, Program and Project Management, Research and Training.

**This list of capabilities has been based on ICN Gateway's list of Defence Capabilities.
ICN Gateway is Australia & New Zealand's largest network of suppliers and projects.**

WWW.GATEWAY.ICN.ORG.AU



WHO IS HUNTER DEFENCE?

Hunter Defence represents over 100 companies in the Hunter region competing for prime and supply chain contracts. It prepares them for these opportunities and helps them articulate their value proposition and capabilities to government and major defence industry players.

The Hunter Defence Task Force within Hunter Defence is a collaborative taskforce focused on demonstrating the capability of established Hunter defence industry suppliers to CASG, ODIS and primes and upskilling local SMEs to become **'defence ready'**.

This work involves understanding regional defence capabilities and capacities, aligning them with opportunities, encouraging SMEs to form advanced capability groups, and synergising broader product offerings via closer collaboration.

GOALS

- *To articulate to Government and major world-wide Defence Primes the value proposition of the industrial capability of the SME base within the Hunter and surrounding regions, and*
- *To educate and prepare regional industry within the Hunter catchment to compete for defence contracts in their own right or as subcontractors to the major primes.*

MAJOR FUNDING PARTNERS

The current governance model for Hunter Defence is via a multi-lateral Partnering Agreement contributed to by the following organisations:



NSW Government: Works closely with the defence industry to attract increased defence investment in the state and help small and medium sized enterprises gain better access to local and global supply chain opportunities.



HunterNet: HunterNet drives growth and success in industry by bringing individuals, SMEs, multinational primes, academia, and government to the same table.



Business Hunter: The largest regional peak business group in Australia, Business Hunter is a not-for-profit member organisation dedicated to connecting people in business with what they need to succeed.



Newcastle Airport: the second busiest airport in the state of NSW, serving a catchment of 1.3million people and the largest regional economy in Australia. Is a significant contributor to the domestic and international growth of business in the Hunter region.



Regional Development Australia (RDA) Hunter: Leads and facilitates collaborations between industry, education, research and government to help deliver a strong local economy.



Master Builders Association Newcastle (MBA Newcastle): Provides a wide-range of services, and are a leading expert on matters relating to the Building and Construction Industry in the Hunter region.



The University of Newcastle (UON): A globally recognised education institution – ranked in the top 200 universities in the world – committed to solving the world's greatest problems.

HOW HUNTER DEFENCE CAN HELP

Demonstrating Supply Chain Capability

Hunter Defence's role includes demonstrating Hunter Region Supply Chain Capability to the Capability Acquisition and Sustainment Group (CASG), the Office of Defence Industry Support (ODIS), and Defence Primes. This is done by understanding what defence capabilities are generated regionally, aligning local industry capabilities and capacities with upcoming opportunities, and encouraging small and medium enterprises within the region (SMEs) to form advanced defence capability groupings and synergising roader product offering by closer collaboration.

Government Liaison

The Chair of the Hunter Defence Taskforce and the region's Defence Industry Adviser (DIA) has strong links with all levels of government. For example, an ongoing invitation to the regular Minister for Defence Industry's (MINDI) teleconferences that discuss issues of Defence Prime/Regional SME opportunities, AIC requirements and Defence legislative, project and process changes. The Hunter DIA represents the only regional defence industry organisation included in those meetings.

Industry Forums

Hunter Defence conducts ongoing quarterly SME/Prime defence industry forums, with presentations also conducted on an 'as required' basis by Defence Primes with respect to current project status and emergent opportunities.

Event Attendance and Representation

Hunter Defence also participates on behalf of, and in company with, Hunter SMEs at all key national Defence Trade Exhibitions. These include Avalon, Land Forces, Indo Pacific and the recently initiated Cyber and Space conferences. Hunter Defence also represents Hunter SMEs at international Defence Trade Exhibitions as part of Team Defence Australia.



Visit

WWW.HUNTERDEFENCE.ORG.AU/CAPABILITIES

for more information and to access the Hunter Defence Capability Directory; which highlights the organisations, products and services, as well as the specialist capabilities, that exist within the Hunter region.

DEFENCE PRIMES BASED IN THE HUNTER

The region's defence industry network is spearheaded by a strong presence of prime contractors, including the following:

BAE SYSTEMS

BOEING

LOCKHEED MARTIN

NORTHROP GRUMMAN

Raytheon

THALES

CIVMEC

UGL

Just a sample of businesses with defence capabilities that operate in the region:

TWW
T.W. Woods

Nova Systems

WesTrac **CAT**

SAUNDERS
INTERNATIONAL

unitronix
THE EMBEDDED EDGE

blue zone
GROUP

GOAL
GROUP

APPLIED VIRTUAL
AVS
SIMULATION

VARLEY
EXCELLENCE SINCE 1886

Bohemia
Interactive
SIMULATIONS

AMPCONTROL

NUPRESS
GROUP
FIRST CLASS MANUFACTURING

HUNTER DEFENCE CONFERENCE

Bringing defence primes, NSW SMEs, senior politicians, academia, and the Department of Defence senior capability managers together.

The Hunter Defence Conference attracts over 200 delegates and keynote speakers from the defence sector nationally. It is unique within regional Australia and key to promoting regional defence industry capability - presenting a strong and unified voice that is heard throughout NSW industry, the NSW Government, nationally, and importantly, by Federal Government representatives.

The conference includes an exhibition component, as well as significant networking activities and prime-to-SME relationship development. Defence Primes can have direct access to a wide range of existing and potential suppliers in the one place, and it provides a unique platform for small to medium enterprises (SMEs) - including those who have recently become 'Defence Ready' via the Defence Ready Seminar Series - to directly promote themselves and their solutions to this audience.

The Hunter Defence Conference has become Australia's premier regional Defence event in terms of program quality and value for money.

THE ANNUAL HUNTER DEFENCE CONFERENCE AND EXHIBITION GIVES ORGANISATIONS THE ABILITY TO PRESENT THE CAPABILITY OF THEIR BUSINESS TO THE DECISION MAKERS IN DEFENCE.



For the latest information on the upcoming Hunter Defence Conference please scan this code.

HUNTER DEFENCE IN ACTION

Hunter Defence has enabled a wide variety of projects across the Hunter since its inception. Below are just some examples of recent collaboration in action.

VARLEY GROUP



Through connections facilitated by Hunter Defence, Hunter-based business Varley Group has developed the first of type maintenance gantries for the Boeing 737 P8 maritime control aircraft and the Deployable Secure Mission Planning Facility for Lockheed Martin.

The Varley Deployable Secure Facility

The Varley Deployable Secure Facility is a ruggedised expandable shelter designed to provide a secure and environmentally protected workspace. It was chosen by Lockheed Martin Australia as the product of choice for the deployment of Information and Communications Technology (ICT) equipment to support the secure operation and through life support of the Australian fleet of JSF F-35 aircraft. These facilities are intended for off-board mission planning activities to support the deployment of fifth generation aircraft platforms such as F-35A Lightning II JSF, F/A-18F Super Hornet, E/A-18 Growler and P-8A Poseidon and for mobile operation of 5th generation C4ISR capability in a highly secure and robust deployed configuration.



P8 Maintenance Docking System

The P8 Maintenance Docking System has been specifically designed and built by Varley to facilitate scheduled deeper maintenance activities on the P-8A Poseidon aircraft and comprises fixed and mobile access and work platforms providing 240V Ac and 32V DC power and lighting, compressed and breathing air, air conditioning and fuel tank ventilation ducting, and integrated fall arrest and fall prevention.



R&R MURPHY

BAE Systems Australia were facing a challenge when it came to training their teams and manoeuvring their equipment. Enter R&R Murphy - via an introduction from Hunter Defence - who were able to design and develop a series of bespoke lifting and rotating solutions.



RAAF Confined space training rig platform, developed in conjunction with the RAAF, designed and purpose built to carry out training for the confined space entry to the fuselage for the F 35 fighter jet.



BAE Systems CBLS work stand, designed by R & R with BAE, purpose built for the multi position requirements for the maintenance of the under-fuselage pan on the Hawk training jets.



Boeing Defence-F 18 wing component storage racks designed and purpose built for the storage of certain wing components during maintenance for the F 18 Program.



NUPRESS GROUP

Nupress Group is a manufacturer of precision machined parts and components. When Nupress commenced machining of Aluminium braised chassis for a sub-prime aerospace company supplying into the F35 global supply chain the program was experiencing high scrap rates and delivery constraints due to the quality issues.

As an AS9100 certified company, Nupress applied it's 'first class' approach to these complex parts. Features of the chassis required accuracy to 5 micron tolerances (0.005 of a millimeter), added to this the large Aluminium chassis would expand and contract in temperature variations due to its thermal coefficient meaning parts could go in and out of tolerance as the temperature changes throughout the day.

Applying Process Failure Mode Effects Analysis (PFMEA) and machining in an environmentally controlled environment Nupress was able to develop their process to ensure not just reliability of manufacture but repeatability of the process. As a result, the scrap rate of the chassis was reduced to less than 3% as well as allowing for 24 hour manufacture allowing for consistent delivery of parts. A first class solution to a complex problem.



GOAL GROUP

A group of Hunter-based businesses including Goal Group, Advitech and Power Control Engineering have teamed up to undertake significant maritime engineering and capability transition studies for the Australian Navy, through multiple Maritime Program Offices. Collaboration has been key to this approach, with a view to supplying resources particularly to the Destroyer Capability Enhancement program, SEA 4000, SEA 2200, JP 2048, Sea 1770 and SEA 3030 PH2. This significant successful regional involvement continues to build the Maritime capability of the Hunter's defence industrial base.

GUARDWARE



GuardWare Australia is an Australian startup collaboration between e-Safe Systems™ Australia and the Goal Group based in the Hunter region. GuardWare's three cyber products uniquely address critical cyber security issues which arise when businesses share sensitive data.

GuardWare™ products enable SMEs to simply and affordably govern all data within their business. Defence Primes and IP owners can distribute data throughout their supply chain while retaining complete oversight and ongoing control. Ultimately they can retract access at anytime.

GuardWare Intel for SMEs is delivering value to over one million users. GuardWare Protect and Oversight is in the late stages of development for release in 2022.

THE HUNTER REGION

Covering an area of nearly 33,000 sq km, the Hunter is located north of the Sydney metropolitan area and is home to over 747,000 people making it the most populous regional area in Australia.

The Region is embracing innovation as a major economic driver, with industries in the Hunter characterised by “can do” attitude that is fuelling sustained economic growth and a secure future. These factors, combined with the Hunter’s numerous other competitive advantages, have seen billions of dollars invested in recent years by a host of companies, including major national and international corporations.

The Hunter economy’s increasing focus on innovation and intellectual resources is making existing industries more efficient, gaining new global markets, and creating new industries that will hold the Hunter in good stead for the future. Increased levels of cooperation between industry, government, educational institutions, and other organisations are helping to increase levels of local innovation and driving growth.

THE HUNTER REGION IS SITUATED ON AUSTRALIA’S MAIN EAST COAST TRANSPORT CORRIDOR



Over 1.2 million annual passenger movements through Newcastle Airport



The Port of Newcastle is one of Australia’s largest ports with \$37 billion of cargo in 2021



Comprehensive rail network with passenger and freight train services, linked to the Port of Newcastle



Situated on a major freeway and close proximity to major Australian markets

THE HUNTER COMBINES AN INNOVATIVE ECONOMIC AND BUSINESS ENVIRONMENT WITH A HIGH STANDARD OF LIVING



Australia’s largest regional economy with over \$47 billion gross regional output and over 53,000 businesses (June 2021)



Greater Newcastle is Australia’s 7th largest city



Global top 200 university



Highly skilled workforce



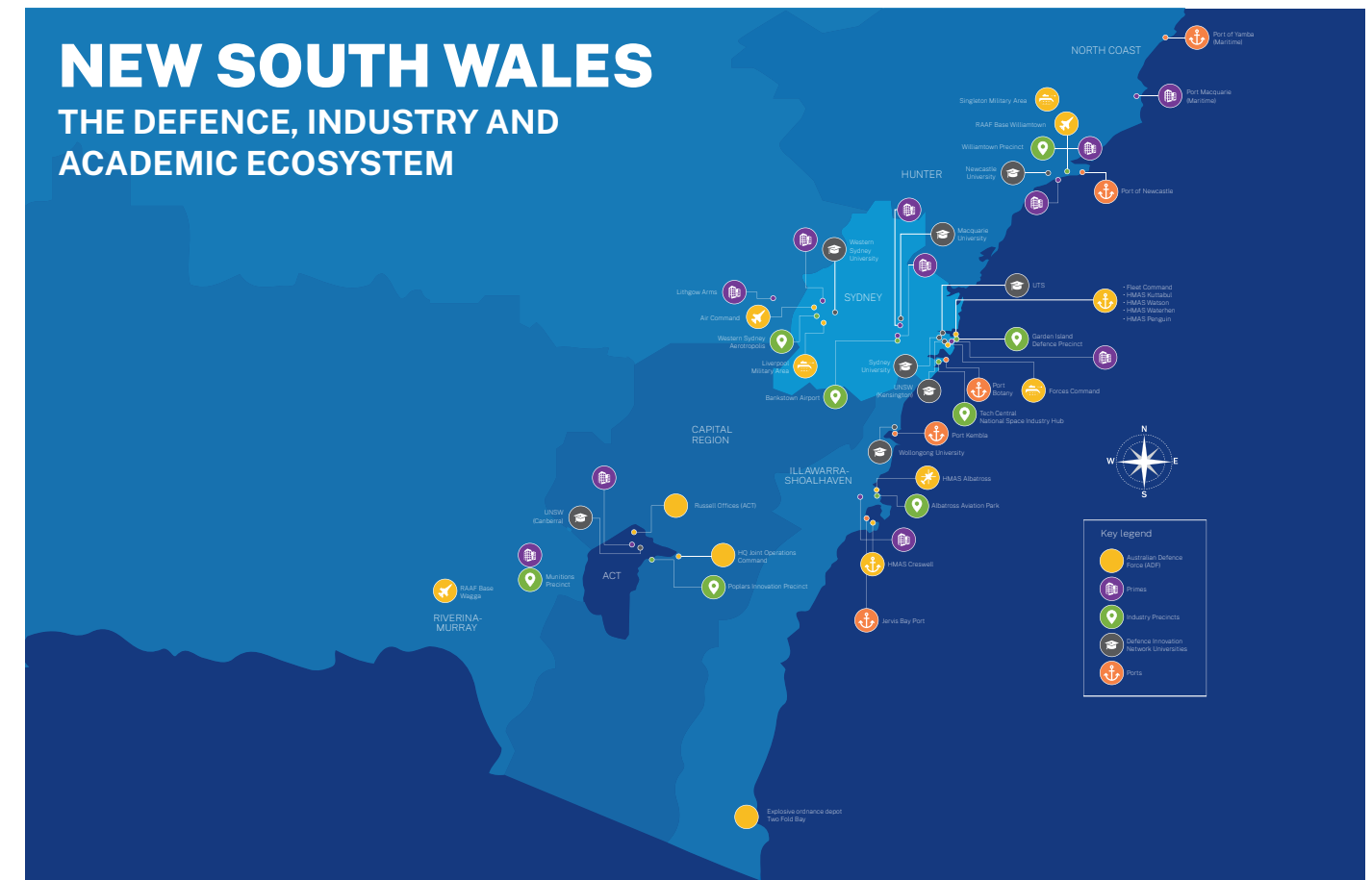
Population of 774,587 (ABS June 2021 ERP)



Enviably lifestyle

Source: 2023 Hunter Investment Prospectus available at www.rdahunter.org.au

NEW SOUTH WALES THE DEFENCE, INDUSTRY AND ACADEMIC ECOSYSTEM



SOVEREIGN DEFENCE & AEROSPACE MADE IN NSW

NSW is Australia’s economic, education and research powerhouse. Home to more than a quarter of Australia’s defence personnel, its vibrant cities, regional centres and world class precincts offer a business base and lifestyle envied throughout the world.

The NSW advantage



Defence expenditure in NSW exceeds \$12.5b annually



Highest number of defence and space industry skilled employees



Majority of Australia’s leading tertiary education and research institutions



41% of all Australian space businesses are based in NSW

Defence & Aerospace NSW

Defence and Aerospace NSW is a dedicated team in the NSW Government, responsible for creating the conditions for sustainable, technologically advanced, and globally competitive defence and aerospace industries.

Find out why NSW is such a great place for defence and space and to learn more visit

www.investment.nsw.gov.au/defence-and-aerospace

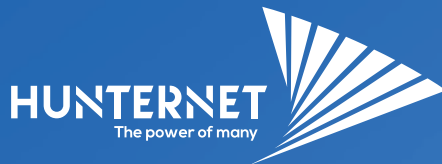
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Hunter Defence acknowledges that it operates on the grounds of the traditional country of the Awabakal, Darkinyung, Geawegal, Wonnarua, and Worimi peoples. We recognise and respect their cultural heritage, beliefs and continuing relationship with the land, and that they are the proud survivors of more than two hundred years of dispossession.

Hunter Defence is proud to provide continued assistance to charities in support of local veterans.

