



Defence Industry in the Hume Region:

**An Assessment of Value and
Growth Opportunities**

NOVEMBER 2019

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**Regional
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H U M E



An Australian Government Initiative



The Hume Region hosts the largest Australian Defence Force presence in Victoria and is bustling with industry already supporting Defence. There are many more companies with demonstrable potential that are on the verge of expanding into the Defence supply and support chains. There are also some project opportunities that could combine the region's strengths, and leverage existing Defence relationships, to provide world class leading capabilities to Defence. This report was commissioned by Regional Development Australia – Hume for the purpose of economic growth through closer cooperation between Defence, industry and educational institutions in the region.

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All current and future value figures, expressed herein as spend and jobs, are based entirely on the estimates provided by stakeholders interviewed during this project.

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INTRODUCTION

Regional Development Victoria (RDV) is an agency within the Department of Jobs Precincts and Regions (DPJR) of the Victoria State Government. RDV aims to facilitate economic growth and infrastructure development in regional Victoria.

Regional Development Australia (RDA) is an Australian Government initiative. It is comprised of a network of 52 committees with the aim of development of Australia's regions. As agreed between the Federal and State Government, RDV supports the RDA Committees within Victoria.

Victoria's Hume region stretches along the border with New South Wales from the Corryong in the east through Albury/Wodonga and across to Echuca in the West, then dips south to include Wangaratta and Seymour. Population is 294,746 with 112,959 employed.ⁱ



Figure 1: RDA Hume region and surrounds (courtesy: REMPLAN)

There is a significant Australian Defence Force (ADF) presence within the region and the RDA Hume committee considers the Defence sector, which includes the institutions and industry supporting Defence, is of significant economic value.

The committee sought to better understand the current value, challenges and growth opportunities. An issue that has come up in discussions with businesses is that it can take several years for a business to become "Defence ready". RDA Hume sought to explore ways to support business and the region achieve a greater degree of readiness. RDV commissioned this study for RDA Hume to more clearly define the value of the Defence sector in the Hume Region and identify future opportunities.

This report is divided into five chapters. In the second chapter, the current situation regarding the Defence sector in the Hume Region shall be described:

- A summary of the current primes, large industry, small businesses, institutions that are supporting Defence including academic and training institutions

- The ADF footprint from the Albury/Wodonga Military Area (AWMA) to the Puckapunyal base near Seymour
- Existing public sector or alliance organisations that are supporting growth of the Defence sector in the Hume Region
- The impediments that are currently experienced by industry, institutions and local governments in attracting Defence investment. This includes factors such as a lack of understanding of Defence strategy to de-risk investment
- The enablers of the region with respect to supporting Defence industry such as logistic hubs and available areas of land

Based on the enablers, Chapter 3 details four major opportunities that are considered the most feasible, practical and beneficial opportunities, for growth of the Defence sector in the region. Chapter 4 will then table the recommendations against the impediments identified during stakeholder engagements.

To conclude the report, Chapter 5 provides evidence-based advocacy for the Hume Region. It summarises the key points from this analysis which demonstrate the Hume Region is “Defence Ready” and poised for growth of the Defence sector.

About the author: Dr Brendan Kellaway CSC has over 25 years’ experience in Defence and Defence industry. He specialises in project and program management, capability development, technology assessment and strategic planning. Brendan has authored many strategic articles for Army and submissions for Army’s highest value capabilities. A proud ex-Artillery officer and now a Colonel in the Reserves, Brendan resides in the Hume Region on his family’s property near Yackandandah.

Acknowledgements: RDA Hume and Kellaway Management Solutions Pty Ltd would like to thank the stakeholders listed in this report who gave their time to contribute. It is their provision of facts, figures and observations that has enabled a contemporary and accurate report with recommendations based on evidence from their engagement with this project.

1. CURRENT SITUATION

This chapter will provide the definitions and assumptions and then describe the current situation in the Hume Region with respect to the following:

- The total value of the Defence sector combined
- Defence Industry and Defence in the Hume Region and their respective values
- The public sector supporting Defence
- The common impediments and enablers emanating from the engagements with all 35 stakeholders.

Hume Region

The location and span of the Hume Region within Victoria is depicted in Figure 1. The shires and city municipalities are shown below in Figure 2. Albury City municipality and direct surrounds and the Federation Council including Mulwala and Oaklands were included in the scope of this report as they are inseparable from a regional economic and community perspective.

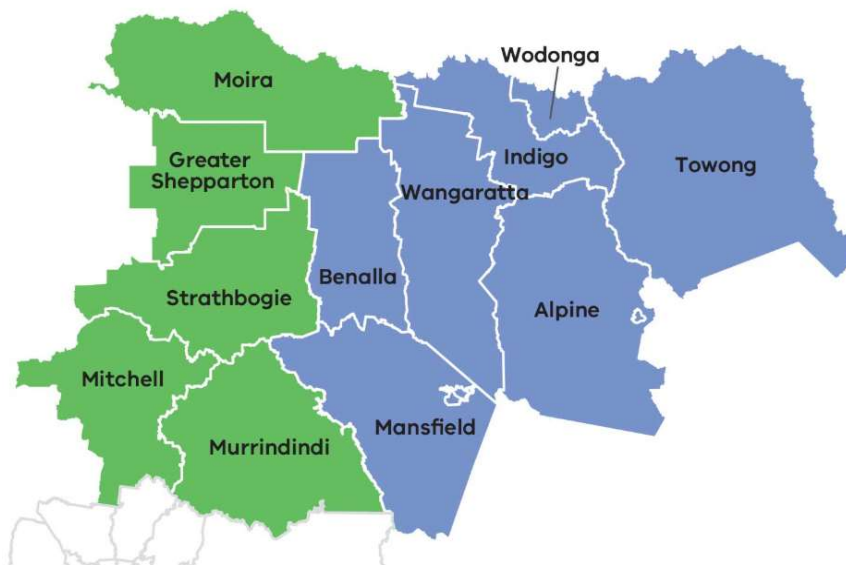


Figure 2: Shires within the Hume Region (courtesy: RDA Hume)

The city municipalities in the Hume Region:

- Benalla Rural City
- City of Wodonga
- Greater Shepparton City
- Wangaratta Rural City

Stakeholders

The stakeholders in the Defence sector in the Hume Region have been divided into the following four groups:

- 1 Prime contractors and vendors or Original Equipment Manufacturers (OEMs) whose main business in the region is Defence
- 2 Contractors, service providers and vendors who have a large Defence account in the region
- 3 The Department of Defence establishments and units or branches
- 4 Government, Agencies and Alliances supporting growth of the Defence sector

Spend

Direct spending is defined as spending on goods and services purchased from, or within the Hume Region, that are directly incorporated into the goods or services that a business produces for Defence. Examples of direct spending are raw materials, ingredients, components, hardware or the subcontracting of manufacturing.

Indirect spending is for goods, services or fees from or within the Hume Region that are not directly incorporated into the products and services being manufactured or provided by the business. Examples are rates, office supplies, cleaning and maintenance of facilities, and furniture. Group 2 stakeholders were required to provide an indirect spend figure attributable to their Defence business.

Spend is expressed in Australian Dollars and stakeholders provided spend to the nearest one hundred thousand dollars (\$100k) or nearest one million dollars (\$1m) based on the size of their business or Defence account as they deemed appropriate.

Spend figures in this report are based on the estimates provided by the industry and Defence stakeholders

Jobs

Jobs is the Full Time Equivalent (FTE) employed or contracted and living in the Hume Region. Part-time and casual employees are summed to an FTE figure. Eg. two part-time employees who work two days per week each and one casual who usually works a day per week sums to a total of one FTE.

Actual Spend and Jobs, Future Spend and Jobs

Actual Spend is the stakeholders current annual estimate of spend and most stakeholders referred to their FY 18/19 reports. For jobs most stakeholders referred

to their current establishment figures at the time of the interview. Future is the mid-term future timeframe of beyond two years and less than five years from 2019.

Forecast growth or decline figures in this report are based on the estimates provided by the industry and Defence stakeholders.

Value

Value is expressed simply in spend and jobs as defined above, directly attributable to the information provided by industry and the Department of Defence stakeholders. Economic Multiplier Effects have not been applied in this report. Some deconflctions were required to ensure the total value (below) was not exaggerated by overlaps between stakeholders.

An example overlap is where a Defence stakeholder includes a services contract in its spend and the contracted staff performing those services within the Contracted Staff FTE. If the spend is to a locally owned company in the Hume Region, then this is best deconflicted by subtracting the relevant Contracted Staff FTE from the total jobs figure.

However, if the contract spend is received by a company located within the Hume Region that is part of a larger national or international company that would be receiving a portion of those funds, then it is considered simplest and more accurate to remove the spend and keep the Contracted Staff FTE within the jobs figure. Also, if the contracted company is an industry stakeholder in this report then the relevant employees of that company must be subtracted from the Contracted Staff FTE of the Defence stakeholder in the calculation of Total Value.

For commercial reasons, as agreed with all stakeholders, the values of individual stakeholders are not presented in this report. A list of stakeholders and the group value is provided in this chapter within the *Industry* and *Defence* sections.

Total Value

For the purpose of this report, the total value of the Defence sector in the Hume Region is the deconflicted sum of industry and Defence (Groups 1, 2 and 3). As shown in Table 1 below, this is \$185m per annum spend and over 5600 jobs with almost 44% increase in spending expected by 2021.

Spend	Actual	Jobs
185	Previous or current FY	5643
266	Future	5668
AUD\$m in Hume	Beyond two years	FTE in Hume

Table 1: Total value of the Defence sector in the Hume Region

Industry

1

There are 14 stakeholders who are prime contractors, vendors or Original Equipment Manufacturers (OEMs) whose main business in the Hume Region is Defence. The company names and main business interest for Group 1 stakeholders are provided in Table 2 below.

Group 1 Stakeholders		Service or Supply
	Broad Spectrum	<ul style="list-style-type: none"> Maintenance Support Services for ground equipment and vehicles. Also Defence Base services
	Meggitt Training Systems	<ul style="list-style-type: none"> Supplier of integrated live fire and simulation weapons training systems supporting defence forces, law enforcement agencies and commercial shooting range owners
	Australian Target Systems	<ul style="list-style-type: none"> Development, assembly and supply of training target technology to Defence and Police
	Pentarch Industrial	<ul style="list-style-type: none"> Recycle the inventory of sensitive storage containers from Defence. Demolition for Army, Navy and Air Force Disposal work for customs and police
	Thales Australia	<ul style="list-style-type: none"> Manufacturing chemicals, propellant and high explosive Ammunition manufacturing Explosives and ammunition packaging
	Hide Away Safe Securities	<ul style="list-style-type: none"> Design and assembly of polycarbonate safes for light and strong secure storage.
	Milspec Manufacturing	<ul style="list-style-type: none"> Design, assemble and supply of patented and unique alternators and portable power solutions
	Nioa Defence	<ul style="list-style-type: none"> Provision and support of weapon systems and integrated soldier systems
	Elbit Systems	<ul style="list-style-type: none"> Training courses on Army's Battle Management Systems
	ESS - Compass	<ul style="list-style-type: none"> Catering and messing services
	BAE Systems Australia	<ul style="list-style-type: none"> Nulka Decoy Assembly



Spotless

- Base services and facilities management



Veolia

- National Defence contract for waste management, disposal and recycling for all Defence Sites



Scientific Management Associates

- Integrated Logistics Solutions (ILS) and technical training

Table 2: Group 1 Stakeholders

All stakeholders identified in Group 1 participated in this Defence sector analysis. The total value of the group is currently more than \$50m in spend and more than 1300 jobs. As shown in Table 3, a 25% growth in spend and 3% growth in jobs is anticipated for Group 1.

Spend	Actual	Jobs
52	Previous or current FY	1323
66	Future	1363
AUD\$m in Hume	Beyond two years	FTE in Hume

Table 3: Group 1 Stakeholder value to the Defence sector in the Hume Region



*Australian Army soldiers with the Rheinmetall Boxer Combat Reconnaissance Vehicle during Exercise Chong Ju at Puckapunyal training area, Victoria, on 16 May 2018
(Courtesy: Defence Media)*

2

There are five key industry stakeholders that are contractors, service providers and vendors who also have a large Defence account in the region. i.e. their main business is non-Defence related. The company names and main business interest for Group 2 stakeholders are provided in Table 4.

Group 2 Stakeholders	Service or Supply
 WODONGA TAFE Building success through learning	Wodonga TAFE <ul style="list-style-type: none"> • Heavy vehicle driver training • Nursing training • Forklift and crane operation training • Technical trades training
 LINFOX	Linfox <ul style="list-style-type: none"> • National warehousing and distribution
 Australian Textile Mills PTY LTD	Australian Textile Mills <ul style="list-style-type: none"> • Provides material for Defence uniforms and personal protective equipment
 Red Barron ALSE	Red Barron ALSE <ul style="list-style-type: none"> • Products and services to Defence in aviation life support equipment in maritime, land and air domains
 AAE AUSTRALIAN AEROSPACE ENGINEERING	Australian Aerospace Engineering <ul style="list-style-type: none"> • Helicopter maintenance, fabrication and distribution of aviation parts

Table 4: Group 2 Stakeholders

All stakeholders identified in Group 2 participated in this Defence sector analysis. The total value of the group is currently \$24m in spend and 440 jobs. As shown in Table 5, a decline of 9.5% spend and 3% jobs is anticipated.

Spend	Actual	Jobs
24	Previous or current FY	440
22	Future	425
AUD\$m in Hume	Beyond two years	FTE in Hume

Table 5: Group 2 Stakeholder value to the Defence sector in the Hume Region

The division of industry into two stakeholder groups was to shape the engagement and data collection towards the gathering of “Defence related” only information (relevant to Group 2). The division also identifies those companies or institutions in the region who are supporting Defence but have a more dominant commercial sector within their business.

The total value of Defence industry, being the sum of Group 1 and Group 2 stakeholders, is shown in Table 6 below. As can be seen, growth in spend is approximately 14% and there is a marginal 1% growth in jobs.

Spend	Actual	Jobs
77	Previous or current FY	1763
88	Future	1788
AUD\$m in Hume	Beyond two years	FTE in Hume

Table 6: Defence Industry total value in the Hume Region

Defence

3

The Defence presence in the Hume Region is predominantly in the Albury/Wodonga Military Area (AWMA) and Puckapunyal. Within these areas are four key Defence stakeholders.

Albury/Wodonga Military Area (AWMA)

Albury/Wodonga Military Area (AWMA) is comprised of five sites. Four of these sites are located near Wodonga; Gaza Ridge Barracks saddles the Murray Valley Highway at Bandiana, and Wadsworth Barracks at East Bandiana. Latchford Barracks is located at Bonegilla.

There are 23 separate Defence units represented in the AWMA. There are two large key elements established in the region which inject most of the Defence spending and jobs in the region. Firstly, the Joint Logistics Unit – Victoria (JLU-V) provides strategic level logistic and maintenance support to the Australian Defence Force. It features more than 28 acres of covered warehousing at Bandiana.

Secondly, the Army Logistics Training Centre (ALTC) provides logistic and trade training for Army and some Navy and Air Force trades. The AWMA is home of the following training establishments:

- Army School of Electrical and Mechanical Engineering
- Army School of Health
- Army School of Logistic Operations
- Army School of Ordnance

The AWMA workforce and trainee population consists of members of the ADF, Australian Public Service (APS) and contractors. This can vary between 2000 and 4000 personnel depending on the number of courses being conducted at ALTC.



Mechanics monitor an engine and gearbox from a ground support station at Joint Logistics Unit - Victoria's heavy vehicle maintenance facility in Bandiana (Courtesy: Defence Media)

Puckapunyal Military Area (PMA)

Puckapunyal is approximately 100km North of Melbourne and adjacent to the town of Seymour. The land mass is 122,000 acres which includes the adjacent Proof and Experiment facility operated by the Defence Science and Technology Group.

Puckapunyal is home to a depot of JLU(V) and the Army School of Transport from ALTC, but the predominant Defence establishment in Puckapunyal is the Combined Arms Training Centre (CATC). This centre groups the Army's combat corps training centres under a single command at CATC's Headquarters in Puckapunyal. The base is also home to two training establishments; the School of Armour and the School of Artillery.

In addition to providing training to Army's combat arms officers and soldiers, the base hosts some of Army's largest and most significant exercises in Australia.

Living on base are 1,200 families and a primary school for 400 students; 50% from Defence families and 50% from the local community. On any given day there will be approximately 1,500 trainees on base and the population can peak to 10,000 during major exercises.



*An Australian Army armed reconnaissance helicopter fires at targets during Exercise Chong Ju at Puckapunyal training area, Victoria
(Courtesy: Defence Media)*

A Royal Thai Army soldier walks past competing teams at the Australian Army Skills at Arms Meeting 2019 held in Puckapunyal, Victoria.
(Courtesy: Defence Media)







Group 3 Stakeholders	Role
	<p>Joint Logistics Unit (Victoria), Albury/Wodonga Military Area (AWMA)</p> <ul style="list-style-type: none"> • Warehousing • National supply network • Land material maintenance
	<p>Army Logistics Training Centre, AWMA</p> <ul style="list-style-type: none"> • Logistic and trade training • Army School of Electrical and Mechanical Engineering • Army School of Health • Army School of Logistic Operations • Army School of Ordnance
	<p>Combined Arms Training Centre, Puckapunyal</p> <ul style="list-style-type: none"> • Combat arms training • School of Artillery • School of Armour
 <p>Australian Government Department of Defence Estate and Infrastructure Group</p>	<p>Estate and Infrastructure Group, AWMA and Puckapunyal</p> <ul style="list-style-type: none"> • Estate and Defence infrastructure management, maintenance and base services contracting

Table 7: Group 3 Stakeholders

All stakeholders identified in Group 3 participated in this Defence sector analysis. As shown in Table 8, the total value of this group is currently \$108m in spend and nearly 4900 jobs. Spending could almost double due to Defence's future investment in the region while jobs are expected to remain constant.

Spend	Actual	Jobs
108	Previous or current FY	4887
179	Future	4887
AUD\$m in Hume	Beyond two years	FTE in Hume

Table 8: Group 3 Stakeholder value to the Defence sector in the Hume Region

Public Sector

There are a variety of Government, Government agencies and Government funded initiatives that are active in the Hume Region supporting Defence sector growth. The role or aim of each stakeholder in Group 4 is summarised in Table 9 below.

Group 4 Stakeholders	Support Role
	<p>Wodonga City Council</p> <ul style="list-style-type: none"> • Pro-active support to Defence and ensuring Defence remains a welcomed and supported industry in the region • Home of AWMA
	<p>Albury City Council</p> <ul style="list-style-type: none"> • Pro-active support to Defence initiatives and ensuring Defence remains a welcomed and supported industry in the region
	<p>Victoria State Government</p> <ul style="list-style-type: none"> • Leads State Government Defence initiatives like the Defence Capture Plan • Funding of RDV and supporting RDA Hume • Can develop regional networks • Responsible for representing Defence industry to Federal agencies.
	<p>Mitchell Shire Council</p> <ul style="list-style-type: none"> • Pro-active support to Defence and ensuring Defence remains a welcomed and supported industry in the region • Revitalise Seymour initiative should enhance the appeal of Seymour to Defence and Defence families • Home of Puckapunyal Military Area
	<p>Centre for Defence Industry Capability</p> <ul style="list-style-type: none"> • Support Australian businesses entering or working in the Defence industry • Specialist advice on improving competitiveness and accessing global markets and facilitates connections with other businesses and Defence • Link to the Defence Innovation Hub and the Next Generation Technologies Fund. • Manages an array of grants: <ul style="list-style-type: none"> ○ Capability Improvement Grant of up to \$250,000 ○ Sovereign Industrial Capability Priority Grant of up to \$1 million ○ Defence Global Competitiveness Grant of up to \$150,000

	Victorian Defence Alliances	<ul style="list-style-type: none"> • Helping Victorian businesses engage with Defence markets by developing, promoting and showcasing Victoria's defence industry supply chain • Is organised into five separate member alliances with free membership that brings together related industries in the Aerospace, Digital, Land Systems, Maritime and Submarine domains
	Defence Murray Riverina Alliance	<ul style="list-style-type: none"> • A regional network of government and industry in the Murray Riverina regions of NSW • Promoting regional capability in the Defence sector • Includes businesses across the border in the Hume Region
	Australian Defence Alliance - Victoria	<ul style="list-style-type: none"> • Networking and connecting Defence Small to Medium Enterprise (SME). Intended to connect supply chain opportunities to local capabilities • Is not funded by Government or Defence - subscription funded
	RDV Cross Border Commissioner	<ul style="list-style-type: none"> • Review cross-border issues that affect Defence and Defence industry • Advocates to resolve these issues

Table 9: Group 4 Stakeholders

Impediments

Impediments are defined as internal and external factors that slow or present challenges to growth. Examples are lack of clarity of customer demands and requirements in the future, delays in the supply chain, insufficient support from Government, and heavy fees and taxes. They are the challenges that are currently experienced by industry, institutions and local governments in attracting Defence investment. For example, a lack of understanding within industry of Defence strategy in order to de-risk investment. From a Defence perspective, impediments are the inhibitors to spending more in the local region, such as Defence key officials not understanding the local capabilities available.

Tabled below are the impediments to industry, listed in order of prevalence, that were expressed by more than two stakeholders.

Impediments to Industry	Prevalence
Skilled workforce shortage. Current demands include mechanics around Seymour, electronical/electronic engineering around Albury/Wodonga, Information Technology around Albury/Wodonga	60%
Challenges of communicating with Defence at an effective level to enter the market, clarify requirements or maintain commercial relationship. Too many points of contact or different advice coming from various departments. Regular change-over of Defence personnel makes relationship building difficult	55%
National, State or local Infrastructure limitations for moving of explosive ordnance (EO) and sensitive exports by rail and sea. Lack of inland port for export or access to a port in Victoria that is suitable for export of EO	40%
Cross-border issues; gun or ammunition licencing, sensitive or dangerous cargo movement	30%
Plethora of well-meaning agencies is confusing, or applications for benefits are too resource intensive with uncertainty of their tangible benefits	30%
Geographic dislocation. The cost and time of commuting from region to cities, especially to Canberra where Defence business requires face-to-face time	25%
Lack of understanding of Defence or Government policies on acquisition, sustainment, infrastructure, including the duration of the acquisition cycle	20%
Difficulties for Australian owned and operated companies to compete with international companies in the Defence sector. Mostly the cost of labour, components, rates and energy in Australia	20%
International and city-based company perceptions that regional companies cannot meet the requirements or demand	15%

Table 10: Impediments to Defence Industry in the Hume Region

As there are only four Defence stakeholders in Group 3, all impediments to Defence growing spend or presence in the Hume Region have been included in this report. They are listed in Table 11 below in priority order based on prevalence and stated potential impacts or importance to the Defence stakeholder(s).

Impediments to Defence
Transitioning and spouse employment due to employers not wishing to engage Defence spouses, or state regulations for some professions
Heavy vehicle movement restrictions and cumbersome vehicle permit bureaucracy means that it is very difficult to move around the state of Victoria
Difficult to access reliable, contemporary information on what supplies and services are available locally that would be relevant to Defence's needs in the region
Apparent lack of understanding within industry of what Defence does and needs in the region
Apparent lack of understanding of the tender process by SMEs means Defence cannot utilise capable local services
Manufacturing companies are not connected and do not understand each other's capabilities, so a comprehensive regional capability offering is not available
Lack of accessible private high-schooling choice near Puckapunyal makes it difficult to attract some Defence families and highly skilled employees with teenagers who are currently enrolled in private high-schools in other posting locations

Table 11: Impediments to Defence in the Hume Region

Enablers

Enablers are factors about the Hume Region that can support a growth opportunity. Examples could include factors such as ample real estate, large regional logistics hubs or low cost of living for employees. Table 12 lists the enablers to industry in order of prevalence, that were expressed by more than two stakeholders.

Enablers to Industry	Prevalence
Good relationship with Defence and/or good understanding of Defence business. This was most often expressed by companies with senior staff being ex-Defence or long historical relationships with Defence as trusted suppliers	50%
The available workforce suits the nature of the business. E.g. trades, labourers, hospitality or unskilled and low training liability work. Also, where the industry has been in a town for generations.	45%
Quality of life in this region. Beautiful countryside, lots to explore on weekends, good regional community atmosphere. Good cost of living.	30%
Road freight services and access to rail hubs throughout the entire Hume Region	30%
Access to Albury airport	30%
Closely related supporting industries in the region and/or more high-tech supporting industries are becoming available in the region	20%
Skilled workforce, self-raised or recruited from ex-Defence who served in the region and wish to stay or come back to the region	20%
Available land space is good for the industry. E.g. explosive ordnance buffer zones, waste management areas away from population centres, or the security provided by remoteness.	20%
Upcoming large Defence projects and engagements with primes	15%

Table 12: Enablers to Defence Industry in the Hume Region

All enablers to Defence growing spend or presence in the Hume Region have been included in this report. They are listed in Table 13 below in priority order based on prevalence and stated potential impacts or importance to the Defence stakeholder(s).

Enablers to Defence
Never difficult to get qualified trades and new apprentices that can provide service and support. Primes rarely have issues attracting employees in the trades
The Hume Region is a great place to live, explore and raise a family
The significant advantage of the region containing, or being so close to major freight corridors and direct access to two states
Albury/Wodonga has a welcoming approach to Defence personnel
Land mass available and opportunities to increase land area or real estate if required

Table 13: Enablers to Defence in the Hume Region

2. OPPORTUNITIES

Several excellent opportunities were identified during stakeholder engagement and the subject of further investigation. The following four opportunities are considered feasible, practical and are supported by the parties mentioned herein. Not only would each opportunity provide tangible economic growth in the Hume Region, but also offer secondary benefits to other important initiatives like road safety, environmental protection, and community development.

1

Heavy Vehicle Driver Training. Establish a comprehensive training capability in the Hume Region for operators of heavy vehicles, including Defence and industry.

2

Waste Management Facility. Establish a cluster of waste management capabilities that can cater for all waste and recycle and repurpose waste.

3

Collaborative Business Growth. Focus on a few businesses with demonstrable potential, ideally a two-state collaboration

4

Workforce and Community Building. Build the workforce and integrate Defence more into the community through spousal, veteran and resettlement regional employment initiatives

This chapter will provide a synopsis (the 'what') of each identified opportunity and the justification (the 'why'). Practical steps (who, where and when) shall be tabled for progressing beyond this report.














*Australia's Federation Guard (AFG) members took part in an eight-hour Legacy fund raising event at Gaza Ridge Bandiana South Army Barracks in Albury/Wodonga
(Courtesy: Defence Media)*

Heavy Vehicle Driver Training

Opportunity 1

Concept (what)

A project to develop a Heavy Vehicle Driver Training Capability would deliver a comprehensive driver facility and training for Defence and Industry heavy vehicle operators. As depicted in Figure 3, the facility would emulate all traffic controls, scenarios, gradients and simulated weather and road conditions that a heavy vehicle driver could encounter, including skid pans and vehicle roll-over simulation. The Heavy Vehicle Park would also include an off-road training area for 4WD training.

-  Unsealed and rough roads
-  Tight manoeuvring and reverse
-  Shared and congested zones
-  Off-Road 4WD terrain
-  Emergency Drills
-  Vehicle Simulators
-  Secure Vehicle Storage
-  Office space, classrooms
-  Skid pans and roll-over
-  Gradients
-  Complex Intersections

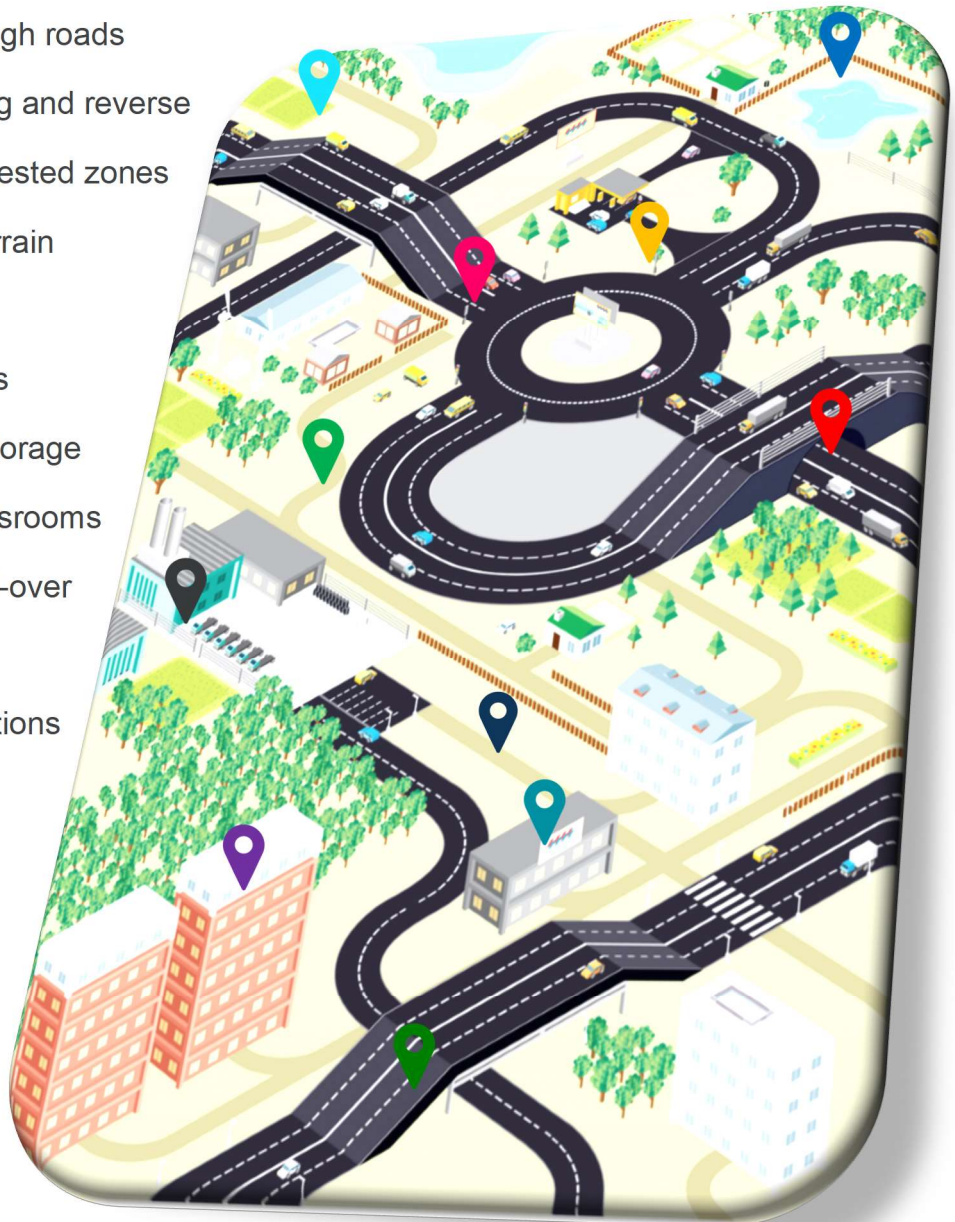


Figure 3: Vision of Heavy Vehicle Driver Training Facility

Justification (Why)

The Hume Region saddles national road freight corridors, it hosts many national and local heavy vehicle freight companies and is home to the Army School of Transport for Defence heavy vehicle training. Within the Hume Region, Wodonga TAFE and the Army Logistic Training Centre have demonstrated an outstanding Defence and Industry partnership in delivering Army's technical and trade training.

Wodonga TAFE has delivered Heavy Vehicle driver training to Defence nationally for a decade and in October 2019, won the new Defence Heavy Vehicle Driver training contract. This contract is for the next five years, with two 2-year extensions, and is worth up to \$100m. Wodonga TAFE is also providing complete packages (accommodation, car hire, training and certification) to several privately-owned national companies that operate large fleets of heavy vehicles.

Heavy Vehicle Driver training and road safety is a critical issue to Defence, industry and the public. Recent statistics demonstrate that it is one of national importance and improvements to heavy vehicle operations and safety have the potential to save lives.

"During the 12 months to the end of June 2019, 183 people died from 162 fatal crashes involving heavy trucks. These included 95 deaths from 85 crashes involving articulated trucks, 94 deaths from 82 crashes involving heavy rigid trucks and 6 deaths from 5 crashes involving both a heavy rigid truck and an articulated truck."

Bureau of Infrastructure, Transport and Regional Economicsⁱⁱ

Defence's Heavy Vehicle training facilities in Shepparton and Puckapunyal need maintenance and development. Wodonga TAFE operates a Heavy Vehicle Driver training facility at Logic Park (15km from Wodonga), which is modern but only a single circuit. None of these facilities can provide a full range of traffic, traffic control, weather and road condition experiences to the trainee. The facility in Puckapunyal is also not readily accessible to the public or industry.

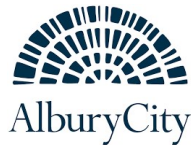
Linfox's Australian Automotive Research Centre (AARC) is a privately owned and independently operated automotive testing facility near Anglesea, 125km south-west of Melbourne.ⁱⁱⁱ Although it provides an excellent array of road conditions, it is, as the name suggest, designed to be a proving ground and not a training facility with traffic and controls for training.

Defence and Industry need a comprehensive training facility operated by a qualified and experienced institution like Wodonga TAFE to deliver the Heavy Vehicle safety courses and certifications. The automotive and autonomous road technology industries would also benefit from such a facility available for private lease to conduct proofing and experimentation in privacy and without risk to the public.

Practical Steps (where, who and when)

Table 14 provides practical steps on progressing the opportunity to develop a Heavy Vehicle Driver Training Capability in the Hume Region.

Where?	Pros	Cons
Logic Park Recommended based on consultation with Defence and Industry stakeholders.	<ul style="list-style-type: none"> Existing modern facility Already operated by Wodonga TAFE Proximity to JLU(V) (for testing of deep maintenance on heavy vehicles) Albury airport access is very beneficial to industry customers More accommodation options in Albury/Wodonga for industry customers Public and industry access Trainer/instructor workforce is available in Albury/Wodonga 	<ul style="list-style-type: none"> Existing capability is limited Requires 100 – 200 more acres Would need infrastructure for secure storage of Defence fleets
Puckapunyal	<ul style="list-style-type: none"> Existing large comprehensive facility (including roads on base) Defence trainees have accommodation at Puckapunyal near School of Transport 	<ul style="list-style-type: none"> Driver training facility needs upgrade Not readily accessible to public or industry No local airport for industry Trainer/Instructor workforce is not available in Seymour and Wodonga TAFE operates weekly FIFO work force.
Who?		
 <p>WODONGATAFE Building success through learning</p>	Wodonga Institute of TAFE (WIOT)	<ul style="list-style-type: none"> Project Management Scope requirements and planning Seek investment and grants Design, Deliver and Operate Provide training to Defence and Industry Heavy Vehicle Operators Manage private hire to automotive and autonomous technology companies
 <p>CITY OF WODONGA VIC</p>	Wodonga City Council	<ul style="list-style-type: none"> Subject to council approval, could negotiate favourable land sale to Wodonga TAFE Advocate and lobby for funds from Federal and State contributions Incorporate into City/Regional Deal with Albury/Wodonga as a “game changer” for the region and assist with scoping the supporting infrastructure City/Regional Deal could act as the hub to bring Wodonga TAFE, Vic Roads and Defence and Council bodies together on the project.



Albury City
Council

- Support through the City/Regional Deal
- Supportive of Albury based Defence industry



RDA Hume

- Advocacy of the potential capability
- Support with networking to other organisations like Wodonga Innovation Hub
- Support to networking with other industries that may utilise or furnish the facilities

When?

Scoping from Jan – Jun 2020 should allow for initiating in by FY 20/21 and the scheduling of Defence and Industry consultation between now and initiation.

Table 14: Practical steps towards Opportunity 1

Waste Management Facility

Concept (What)

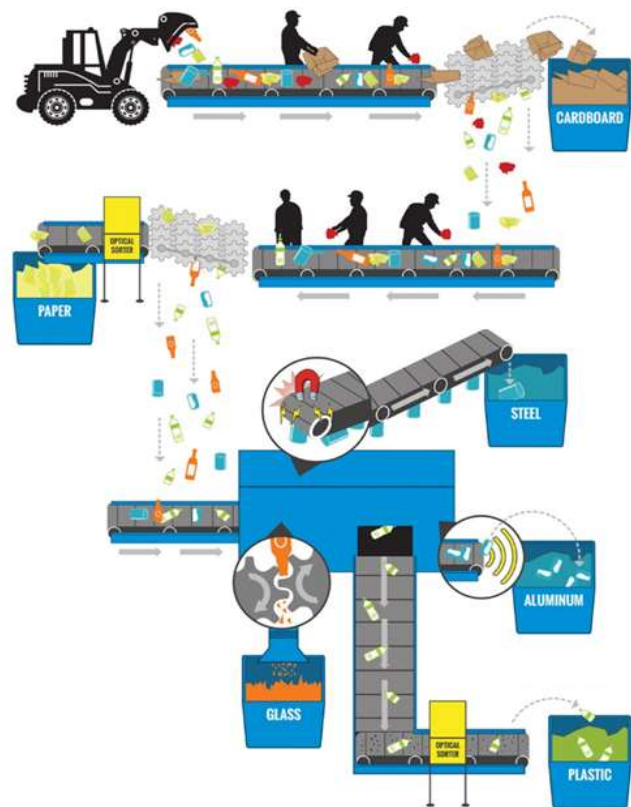
A cluster of waste management facilities managed in concert to sort, destroy, recycle or repurpose all types of waste from Defence, Industry and kerbside collection. The cluster would consist of a Material Recovery Facility, Organic Waste Treatment Facility and a Dangerous Goods Disposal Facility.

Material Recovery Facility A MRF would process kerbside recyclables from Victorian and NSW councils in the region. Veolia owns an MRF in Echuca that has a capacity of 20,000 tonnes per annum. It can process mixed recyclables that are collected throughout the region.

Recovered materials can be sorted and on-sold. Most of these commodities remain onshore including the supply plastics to local re-manufacturing businesses.

Veolia also provides on-site resource recovery solutions for commercial customers.

Figure 4: MRF Sorting Process (Courtesy: Veolia)



Organic Waste Treatment Facility

The Hume Region has a large volume of organic wastes which are generated from commercial activities and government operations in the region. For example, the pet food and abattoir businesses produce large amounts of by-products which could be treated and repurposed for energy generation. Other plentiful waste types in the region are agricultural crop waste, manures, biosolids and garden organics.

The outputs of the process, depicted in Figure 5 overleaf, are:

- Combined heat and power
- Carbon dioxide
- Compressed biogas
- High quality humus fertiliser in solid and liquid forms

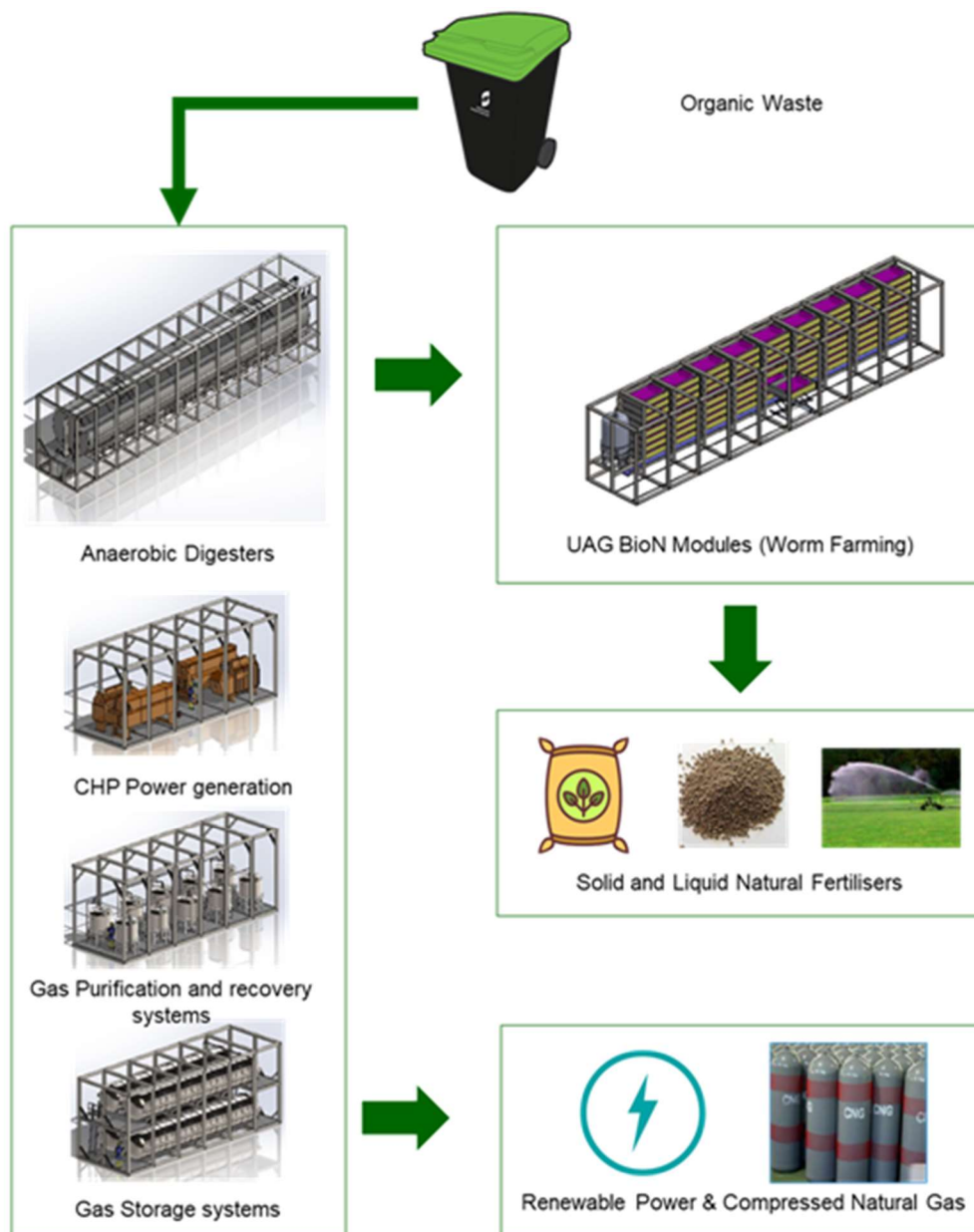


Figure 5: Energy recapture process (Courtesy: UAG Bio Nutrients)

UAG Bio Nutrients is establishing itself in the Hume Region and is a world leader in sustainable waste management using low risk, proven and natural waste-to-energy technology.

Dangerous Goods Disposal Facility. Pentarch Industrial already performs the following services in or near the Hume Region:

- Ammunition disposal tasks for Defence, from pistol to artillery munitions
- Disposing of many forms of pyrotechnics, smoke-generating products, anti-personnel sprays and clandestine laboratory materials
- Ammunition packaging production and refurbishment

Disposals of explosive ordnance requires a lot of space and capital investment. For some natures, approximately 5000ha of secure land is required. Defence traditionally utilises Woomera, SA for bulk product open burn and open detonation.

The US Department of Defence and Environment Protection Agency have agreed to no further open burning and open detonation by 2023. The Australian Defence Forces has also expressed interest in more environmentally responsible methods of disposal. Pentarch has costed a complete facility for environmentally friendly mechanical methods of all Defence explosive disposal and has identified some real-estate options in the vicinity of the Hume Region.

Justification (Why)

This opportunity is based on solid project foundations:

- Excellent subject matter expertise between the three companies
- Strong relationships
- Valuable contracts with Defence
- Readily accessible employment base in the region

Veolia and Pentarch have a strong presence in the Hume Region and currently handle all of Defence's waste. Veolia holds the national Defence Contract for most types of waste and Pentarch handles Defence explosive ordnance and packaging waste. The Oaklands facility near Mulwala, NSW receives Defence sensitive explosive waste from Defence nationally. UAG Bio Nutrients has established a relationship with Veolia and Pentarch and is ready to confidently invest in the Hume Region.

All waste types would therefore be covered and managed between these companies within the Hume Region or immediate surrounds. This could include capacity to support adjacent regions thus allowing reach into both states. This would be an environmentally world class leading project.

Where?

- Initial discussions are indicating towards three sites noting the existing facility at Oaklands
- Consultation with local government is required
- Public consultation is also essential to determine a suitable location

Who?



Veolia

- Material Recovery Facility
- All of Defence conventional waste

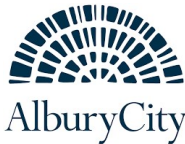


UAG Bio
Nutrients

- Organic Waste Treatment Facility
- Regional and interstate organic waste conversion



PENTARCH
INDUSTRIAL



Pentarch
Industrial

- Dangerous Goods Disposal Facility
- Expansion and modernisation of current role

Albury City
Council

- Demonstrate support for integrated waste reuse and the concept of the circular economy.
- Continue to set a positive tone for integrated sustainability in commercial and residential applications
- Subject to Council approvals, negotiation of favourable land acquisition
- Support public consultation
- Advocate and lobby for funds from Federal and State contributions
- Incorporate into City Deal with Albury/Wodonga as a “game changer” for the region and assist with scoping the supporting infrastructure



Wodonga City
Council

- As above if Wodonga area is available and preferred or work in collaboration with Albury City Council under the City Deal



RDA Hume

- Initiate a waste project round table between the above stakeholders
- Investigate and identify a suitable appointee to initiate and coordinate the joint effort, publicity, and support to explore feasibility and investment required

When?

Veolia and Pentarch are well established and ready to expand. UAG Bio Nutrients is yet to establish a facility and the next step is to submit a Works Approval (Victoria) or equivalent in NSW pending consultation with local Governments.

Table 15: Practical steps towards Opportunity 2

Collaborative Business Growth

Concept (What and Why)

There is the opportunity to focus on a few small businesses with demonstrable potential, ideally in a two-state collaboration. The exemplar business identified is Australian Aero Space Engineering (AAE). It is a highly qualified and capable business that is ready to expand from its current facility. AAE is already proving supplies directly into Defence aviation and has a strong commercial sector.

“AAE specialises in helicopter airframe, tail boom and composite structures and has the appropriate fixtures, tooling, craftsmanship and workshop capabilities to deliver a premier MRO service.”

Colin Johnson, CEO AAE^{iv}



Figure 6: AAE Service streams (Courtesy: AAE)

For the service streams pictured in Figure 6, AAEs potential is demonstrated through its high level of certification:

- Two Licenced Aircraft Maintenance Engineers (LAMEs) in the region
- CASA Part 145 (Approved maintenance organisation for airworthiness) notably the only supplier that has this accreditation in Australia
- CASA Part 21 (Certification and airworthiness requirements for aircraft parts)
- ISO9001 2015 + AS9100D / AS9110C / AS9120

Collaborative support would be a strong demonstration of cross-border cooperation growing a regional Australian family owned high-tech business.




Where?		
		<ul style="list-style-type: none"> AAE has acquired land and has development approval at Albury Airport.
Who?		
	Australian Aerospace Engineering	<ul style="list-style-type: none"> Leads the initiative
	RDA Hume	<ul style="list-style-type: none"> Provides or facilitates introductions to stakeholders including local Government for Council Support Support/facilitate attendance and capability display at Defence trade shows Monitor progress of this opportunity
	Defence Murray Riverina Alliance	<ul style="list-style-type: none"> Introductions to Defence and aerospace primes to Defence Support and advocate for NSW State Government grants for Albury airport facility
When?		
This opportunity is already progressing. Development and construction will need to be in accordance with AAE's business plan.		

Table 16: Practical steps towards Opportunity 3

Workforce and Community Building

Opportunity 4

Concept (what and why)

A common impediment to industry growth in the Hume Region is access to a skilled work force. Ironically, a common detraction of a posting to the Hume Region is worthwhile employment opportunities for service spouses within ADF families. The opportunity exists to build the workforce and integrate Defence further into the community through spousal, veteran and regional resettlement employment initiatives.

Other countries, like the US, have databases that can be used to connect prospective employers and spouses of service personnel, veterans or even serving members looking to resettle locally.

The Information Technology (IT) infrastructure could support this on the Defence, Reserves and Defence Veteran Association with very little effort. If an organisation like DFA and the various Defence industry alliances agreed, it would not be difficult to create the side of the database that contained the “ADF Family Friendly” industry partners.

Where?

- This would be an on-line project
- The Hume Region is a suitable location for piloting such a project due to the blend of industry and Defence in the region across two states

Who?



Business Wodonga and Mitchell Shire Council

- Project Wodonga together with Mitchell Shire Council could initiate this proposal.
- Commence with consulting the initial concept for business case development
- Seek Defence support for a trial in Wodonga
- Scope requirements for IT services for the pilot
- Seek support and grants from the relevant Defence or Government agencies.



Defence Families of Australia

- This opportunity is in line with a similar initiative from DFA and should be a collaborative effort with Business Wodonga facilitating the pilot program in the Hume Region



Prime Minister's Veterans' Employment Program

- The Prime Minister's Veterans' Employment Program raises awareness with employers, both private and public sector, of the value and unique experience of our veterans
- Potential source of funding and exposure through the awards scheme

When?

A similar concept is already progressing with DFA. Business Wodonga should seek DFA agreement to facilitate AWMA becoming a selected region for a pilot program as soon as possible. and then commence seeking funding to manage this project.

Table 17: Practical steps towards Opportunity 4

3. RECOMMENDATIONS

There are three major recommendations intended to address the most significant Defence sector growth impediments and findings made during stakeholder engagement and analysis. They will be outlined below and then the other recommendations will be provided against impediments not already addressed.

Major Recommendation 1: Build supplier networks.

Many SMEs in our region cannot afford to be a prime contractor to Defence. The tender process for joining a panel or making an offering can take years of planning and developing a compliant proposal for a competitive tender is resource intensive. There is also the cost of certification requirements which are lengthy and expensive processed.

Furthermore, Defence already has a very comprehensive network of primes for all major projects for the foreseeable future, arguably the next ten years. There are of course many open tender opportunities but SMEs in our region must carefully consider the likelihood of return when competing for such opportunities.

The strength in our region is SME providing general supplies, maintenance and construction services, manufacturing of components and parts. Despite this, local Defence units in our region do not currently have comprehensive information on all supplies and services that businesses in the Hume Region can offer.

Instead of attracting or supporting a company to become a “big” prime contractor to Defence, it is recommended that the focus be on building supplier networks and growing their support to Defence and supplies for manufacture to the primes. Below are some recommended enablers for this to occur.

A tiered Supplier registry

Information on companies who can support Defence should be listed in a single registry. This would allow Defence to acquire more supplies and services in our region by knowing what is available.

- The registry population should commence with existing data held by the ‘Defence Alliances’ including Victorian Defence Alliance, Australian Defence Alliance and Defence Murray Riverina Alliance
- The registry may be maintained by a cooperative engagement between the two local Defence alliances and access provided to local Defence Contract manager, E&IG and Central Procurement.
- The registry may also be used as a means database of contact details for communicating Defence related activities like workshops.

- “Registration” opportunity for “could be” suppliers is published in local media (newspaper and radio) which refers business to the alliances web page that specifies criteria. Following a brief interview (check) by an Alliance rep, the business may join the registry.

Useful Workshops that enable introductions

Published to the registry are perhaps two events per year that are attended by representatives from the “big eight” primes.

- The event must facilitate introductions
- A useful demonstration or tech talk should draw local attendance. For example, a new welding technique or technology
- Workshops includes a “Defence 101” introduction to Defence delivered by Defence Consultant or expert Government/Defence employee

Help Businesses understand and utilise the support and funding that is available

Rationalise the plethora of agencies in a web-based information platform. For example, a decision flow chart that leads the user to the correct alliance, government agency or grant scheme. The company is then provided a list of Government endorsed or supported user (industry) pays business growth support consultancy service.

- From the published list, companies can access junior consultants at a reasonable hourly rate who are conversant with grant schemes and applications.
- The “Defence Business Support Consultant” list is established by RDV and a firm or consultancy company can be listed by demonstrating the consultant is trained or experience in the various grant schemes

Major Recommendation 2: Address road network issues

Army recently commissioned a Vic Roads capability assessment against Army's new vehicle specifications and planned routes. The report returned:

- 953 restrictions within the State for the specified routes
- 103 restrictions include a reduction in speed to 10kph
- 458 restriction include straddle centreline

The ADF's Joint Logistics Command has confirmed that this is the most restrictions of any state. It is directly attributable to the hilly terrain requiring many bridges and the age of many bridges. Defence seeks to work with Vic State to actively manage the issue.

The following steps are recommended to assist in addressing this issue:

- At level engagements – RDA Hume employees with Defence representatives at senior management (Colonel to Brigadier) level to maintain current awareness of the issue and progress and senior engagements when required
- Regional participation in Defence and Vic Gov Consultative forum
- RDA Hume engage Defence to prioritise restrictions and then champion those priorities to the appropriate funding level; local, state or federal government depending
- RDA Hume initiates discussion on inland rail options for movement in Victoria until high priority restrictions are removed. This could include seeking Victoria Government support for access for Defence movement to required areas
- If Defence pursues telemetric vehicle monitoring (regulation of point axel point loads) then Vic Roads reassess priority restrictions with the aim of reducing or removing the restriction if is safe to do so

Major Recommendation 3: Address the cross-border issues

There are several cross-border hindrances that are expensive to Defence and Defence Industry. These include:

- Freight and heavy vehicle load permits
- Explosive ordnance freight permits
- Operation and manufacture of explosive
- Gun licencing for manufacture and testing

Also, some spousal employment trades and professions make postings to AWMA challenging for some families. For example, school teaching which is state regulated.

It is recommended that RDA Hume continue engagement with the Cross-Border Commissioners and advocacy to both State Government for Defence and Defence industry. Any progress in resolving these issues should be published to industry networks through the alliances and Defence.

Other Recommendations

The following recommendations address that remainder of impediments raised by stakeholders that are not addressed through the identified opportunities or major recommendations.

- An inland port with customs and quarantine facilities at Logic Park would greatly enhance the export potential for companies in Victoria that are having to freight to interstate seaports
- An inland port would also greatly increase export potential for those companies in the Hume Region that are manufacturing and/or distributing sensitive or controlled stores
- Mitchell Shire Council initiates a communications infrastructure analysis for Puckapunyal to establish the available internet bandwidth, cellular phone coverage and whether investment is required to meet Defence's future needs in Puckapunyal
- Mitchell Shire initiates a meeting between the Senior ADF Officer (SADFO) at Puckapunyal and CEO St Mary's College private school. The meeting aim should be to identify whether Puckapunyal and local population could justify the extension of the school from year 10 to year 11 and 12 classes
- The SADFO and CEO Mitchell Shire council meet to identify and discuss projects in the Seymore area that would improve community integration
- Further analysis is required on the quantity and effectiveness of all agencies and organisations with a remit to support Defence industry

4. CONCLUSION

RDA Hume is pro-actively supporting Defence

- The Victorian Hume Region stretches along the border with New South Wales from the Corryong in the east through Albury/Wodonga and across to Echuca in the West, then dips south incorporating Wangaratta and Seymour.
- RDA Hume seeks for the region to become more “Defence Ready”.
- This year RDA Hume commissioned a report on the current Defence and Defence Industry presence and feasible growth opportunities.
- All members of industry in the Hume Region who support Defence in some way or another, participated in the analysis report. RDA Hume is delighted by industry’s enthusiasm for growth in the Defence sector and wishes to thank the industry stakeholders.
- RDA Hume is particularly grateful for the outstanding participation and support from Army Headquarters and Joint Logistics Command for this regional Australia initiative and wish to thank the local senior Defence representatives in the Hume Region who all enthusiastically took part.

There is an important Defence presence in the Hume Region

- There is a significant Defence presence in the Hume Region.
- Firstly, logistics and logistics training from the four bases around Wodonga.
- The Army Logistics Training Centre provides training in logistics, health, and electrical and mechanical engineering.
- Joint Logistics Unit Victoria provides maintenance of armoured vehicles and warehouse supply as a part of the Defence’s national network.
- Secondly, Army’s training establishments at Puckapunyal near Seymour. This includes the Army School of Transport, for Defence’s driver training, and the Combined Arms Training Centre; home to the School of Armour and School of Artillery.
- The Department of Defence currently injects \$108m per annum into the Hume Region economy and employs 4885 ADF personnel, public servants or contractors living in the region

Industry in the region is already supporting, ready to support or can be ready

- There are 14 companies in the region whose business is support to Defence in the Hume Region or nationally and contract with Defence directly, such as Thales and Broad Spectrum.
- There are approximately five companies who have a presence in the region with significant Defence accounts, but most of their business is outside Defence. For example, Wodonga TAFE and Linfox.
- In the Hume Region there are over 100 small-to-medium enterprises (SMEs) providing supply and support services directly to Defence or its primes.
- Defence industry spends \$77m per annum in the Hume Region and provides the full time equivalent of 1763 jobs.
- **The total value of the Defence sector in the Hume Region is currently an annual spend of \$185m and 5643 jobs**

To become more “Defence Ready” there are six key focus areas for the coming years:

1. Build supplier networks, business to business relationships
2. Establish two primary projects for the region that are a collaboration between industry, state governments and Defence: Waste Management Facility and a Heavy Vehicle Driver Training Facility. Defence will be the primary customer for both.
3. Focus on a few businesses with demonstrable potential that are providing unique and high-tech services or products to Defence and connect them with the established prime contractors to Defence
4. Build the local workforce through regional spousal, veteran and resettlement employment initiatives
5. Develop a strategy to address road network issues to ensure Defence’s ongoing presence
6. Fix Cross-border Issues for Industry and Defence Spouse Employment

The relevant local councils, cross-border commissioners, industry and Defence representatives have all confirmed their enthusiasm and support for these projects.

References:

- i. *Economic Profile – RDA Hume*, REMPLAN economy, <https://www.economyprofile.com.au/humeregion/>, accessed 28 Oct 19. Figure 1 courtesy of REMPLAN
- ii *Fatal Heavy Vehicle Crashes Australia*, Quarterly Bulletin, Bureau of Infrastructure, Transport and Regional Economics, Australian Government, Jun 19, ISSN 1835-0240
- iii *AARC Automotive Proving Ground Australia*, (brochure), Linfox, www.aaronline.com, accessed 10 Oct 19
- iv <https://www.austaerospace.com.au/>, accessed 10 Oct 19



*Team Army represents the Australian Defence Force with their street machines 'Armygeddon'. Based at Army Training Logistics Centre in Bandiana, Team Army is a voluntary program for trainees undertaking apprenticeships as motor mechanics, electricians, electronic technicians and fitters.
(Courtesy: Defence Media)*