

THE HUNTER ADVANTAGE

Supporting the Hunter Identity and Positioning Strategy

Hunter and Central Coast Development
Corporation & Department of Regional NSW



Acknowledgement of Country

We acknowledge the Traditional Custodians and First Peoples of this Land and pay our respects to Elders, past, present and emerging.

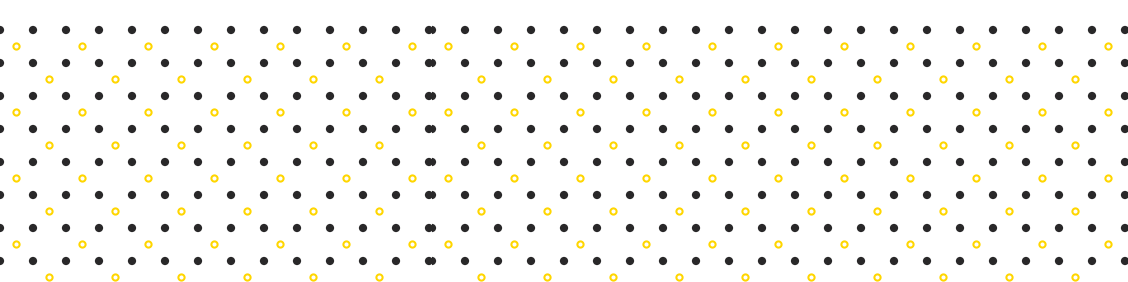
About Astrolabe Group

We create change with empathy.

Astrolabe Group is a change management consultancy delivering strategic services to clients across all tiers of government, industry, universities, and not for profit and peak bodies.

We are recognised experts at helping clients build clarity and consensus across diverse stakeholders in the planning of sustainable and resilient cities.

This report was prepared for Hunter and Central Coast Development Corporation and Department of Regional NSW. In preparing the report, Astrolabe has made every effort to ensure the information included is reliable and accurate. Astrolabe is unable to accept responsibility or liability for the use of this report by third parties.



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Understanding the Hunter's advantage

The **Hunter Identity and Positioning Strategy (HIPS)** is a collaboration between the Hunter and Central Coast Development Corporation (HCCDC) and the Department of Regional NSW (DRNSW) (*the project team*).

This work will fulfil two actions from the *Greater Newcastle Metropolitan Plan 2036*:

6.1) *Hunter [and Central Coast] Development Corporation, in collaboration with Greater Newcastle councils and other major stakeholders, will:*

- *establish the identity and brand of Greater Newcastle as an internationally recognised metropolitan city*
- *promote the competitive advantages of Greater Newcastle to domestic and international markets to enable coordinated growth of health, education and tourism sectors, (page 25).*

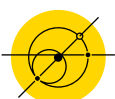
as well as:

5.2) *Hunter [and Central Coast] Development Corporation, the Department of Planning and Environment and Department of Premier and Cabinet will develop a prospectus and market Greater Newcastle to research institutions, innovative business, and national and international universities, with the target of four universities in Greater Newcastle by 2036 (page 24).*

To support the HIPS, the project team required an understanding of the evidence and research about the region to create an alignment of focus with its stakeholders to advance the Hunter.

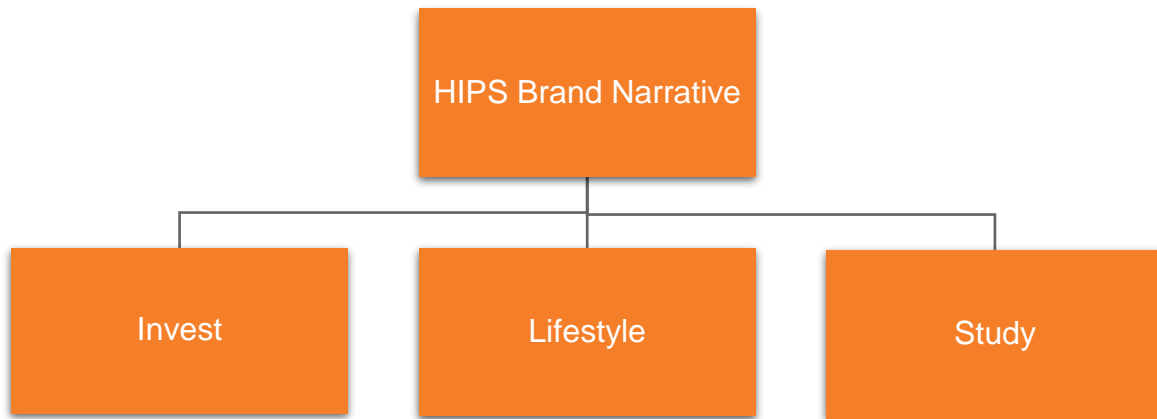
Astrolabe Group were engaged to facilitate stakeholder engagement and produce a report to assess the Hunter's economic comparative advantage. This definition of the economic sectoral inputs will be used by the project team in later phases of the HIPS. This sector validation will support the definition of areas of advantage that can be used to develop a focussed industry narrative for the region.

This report is informed by the outcomes of a workshop facilitated by Astrolabe in December 2020 with over 60 government and industry stakeholders along with desktop research and analysis (see Appendix A and B for methodology and engagement).



Guiding the brand narrative

Initial research by the project team has led to the development of the following three pillars to inform the brand narrative as part of the HIPS, noting the three pillars of focus in developing a Hunter brand narrative. The intent of the brand narrative is to galvanise the Hunter region, attract investment, and promote the region to the world.



Defining the areas of focus: Three pillars for the Hunter Identity and Positioning Project.

Lifestyle

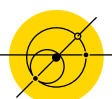
The Hunter enjoys an enviable quality of life, access to services and amenity, transport connections and an exceptional natural environment. These attributes along with an appealing cost of living speaks to the ongoing potential of the region.

Study

Study takes advantage of anchor institutions and seeks to partner with the likes of the University of Newcastle, TAFE NSW, Nihon University, industry specialisations and other education and training providers to attract talent. In addition to the direct benefit of the consumption of education services, this pillar supports research and development and ensures the region's labour market is skilled to deliver for industry and the community and provides a reason to attract and retain a younger demographic.

Invest

Through investment the region can leverage the skills, expertise and infrastructure that can be harnessed to create enterprise, high value jobs, products, and services. Infrastructure, land use and availability, talent, supply chains, access to markets, energy and water security support this pillar. Focus is required to identify which industry sectors to incorporate into the brand, with a bias towards non-population serving sectors where organic growth will occur without intervention.



The Region

The Hunter region¹ is made up of 10 Local Government Areas (Figure 1):

- Newcastle
- Maitland
- Lake Macquarie
- Cessnock
- Port Stephens
- Muswellbrook
- Singleton
- Dungog
- Upper Hunter and
- Mid-Coast Councils

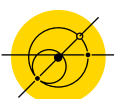
The Hunter's narrative can leverage its existing size, scale and specialisations to achieve maximum impact. The Hunter boasts Australia's largest regional economy – larger than the output of Tasmania, the Northern Territory and the Australian Capital Territory – produces over \$55 billion in annual output and is home to more than 52,000 businesses².



Figure 1. The Hunter region and strategic centres, as identified by the Hunter Regional Plan 2036.

¹ As defined by the NSW Department of Planning, Industry and Environment (DPIE).

² Hunter Business Publications (2020) *Hunter Investment Prospectus*.



The People

The Hunter is one of the fastest growing regions in NSW, projected to grow from 725,000 people in 2016 to approximately 840,000 people by 2036³. The additional 115,000 people will be concentrated in the Lower Hunter – primarily in Lake Macquarie, Newcastle and Maitland (Figure 2). The largest relative population growth will be experienced in Cessnock – anticipated to grow by 36% from 2016 to 2036 – followed by Maitland (28%) and Newcastle (20%).

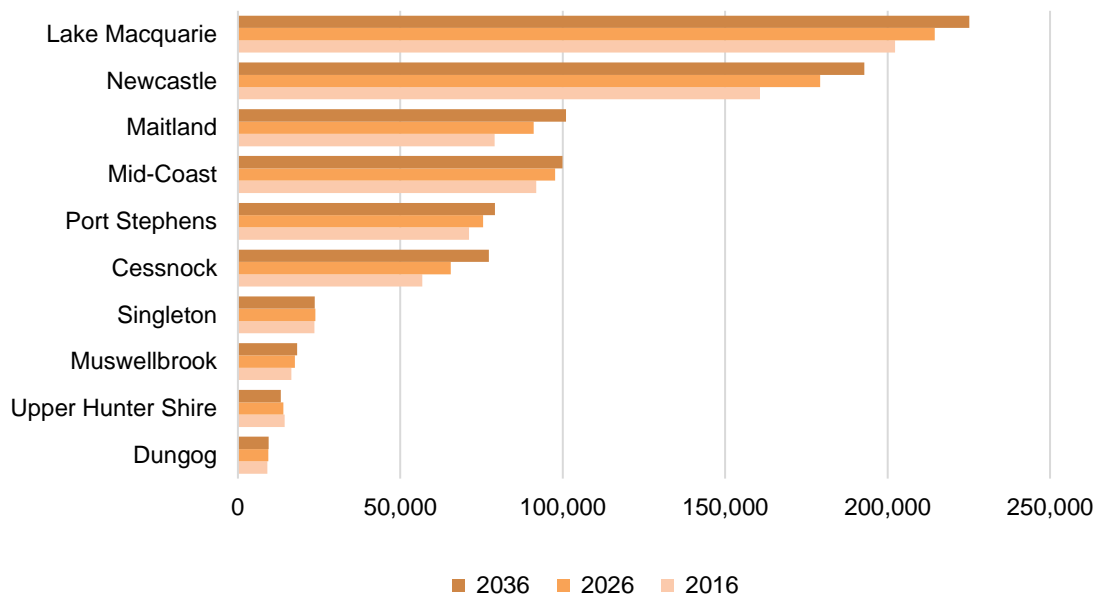


Figure 2. Population growth for Hunter region councils to 2036. Source: Department of Planning, Industry and Environment (2019)

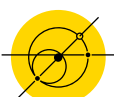
With this growth, the *Hunter Regional Plan* suggests an additional 61,500 jobs and 70,000 homes will be needed by 2036. Some job increases will occur organically such as in population-serving industries, while a concerted effort is required to create more diverse employment opportunities in skilled and specialist industries.

The Hunter is characterised by an older age profile with internal migration driving population growth. By 2036, 25% of the Hunter population will be aged over 65⁴. In Upper Hunter and Mid Coast there are significant increases (proportional and actual) in the over 65 age groups.

This population ageing will increase the demand of services and infrastructure such as health care and aged care jobs, while more diverse housing options will be required to support different needs.

³ DPIE (2019). *Population, Household and Implied Dwelling Projections by DPIE Planning Region*. Note that these projections were released by DPIE in December 2019 and therefore do not factor in the consequences of COVID-19.

⁴ DPIE (2016) *Hunter Regional Plan 2036*, p. 5.



In other areas, such as Maitland and Cessnock, population growth is heavily driven by younger families. The changes in age groups at LGA level should be noted as this has a significant impact on available workforce, skills gaps as well as employment opportunities in those locations.

While we don't yet know the extent to which COVID-19 will impact the rate of projected population change, it is anticipated that population growth will continue in regional NSW⁵.

Like other regional centres in NSW the Hunter is seeing signs of increased housing demand from COVID-19 induced change to working lives and locations. Time will tell if these trends lead to more permanent population shifts, what evidence of current change includes:

- Residential vacancy rates for the Hunter region are currently at 0.7% (January 2021) - half the rate at the same time the previous year⁶.
- The average weekly asking property price is over \$570,000 for the Hunter – a 4.3% increase on the last 12 months⁷.

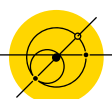
⁵ DPIE (2020). '2020 Population Insights'. <https://www.planning.nsw.gov.au/Research-and-Demography/Population-projections/Insights>

⁶ SQM Research, 'Residential Vacancy Rates Hunter Region' (accessed 16 February 2021).

https://sqmresearch.com.au/graph_vacancy.php?sfx=®ion=nsw%3A%3AHunter+Region&t=1

⁷ SQM Research, 'Weekly Asking Property Prices Hunter Region' (week ending 16 February 2021).

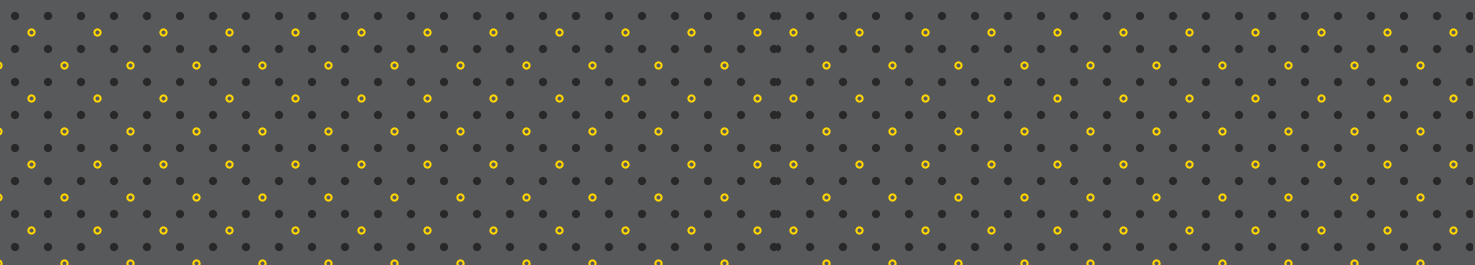
<https://sqmresearch.com.au/asking-property-prices.php?region=nsw-Hunter%20Region&type=r&t=1>





SECTION 1

INTRODUCING THE HUNTER'S REGIONAL ADVANTAGES: LIFESTYLE, STUDY, INVEST



Pillar 1: Lifestyle

With a foundation of enviable quality of life factors and a pristine natural environment, as the Hunter region grows, the lifestyle pillar will be a crucial factor for attracting and retaining talent and enticing investment.

Residents can already take advantage of a variety of lifestyle offerings across the region from coastal towns, villages and centres with a rural lifestyle, supported by a diversity of housing options.

A central location

Greater Newcastle is a global gateway city, enabled by the Port of Newcastle and Newcastle Airport. It has strong connections to Sydney, Central Coast, Northern Coast, New England North West and Central West and Orana⁸.

From Sydney, travel to the region is accessible via road and rail. Traveling from Sydney CBD to Newcastle CBD requires only two hours by road or two and half hours by rail. There is additional investment in transport connections within the region, including the Hunter Expressway and Pacific Highway creating more efficient connections for work and lifestyle travel within the region.

Newcastle City Centre is the Hunter's civic heart and a metropolitan city. The City has an ambitious vision that has created a vibrant centre for the Hunter, supported by a decade of placemaking initiatives and investment in public spaces, including a light rail from Newcastle Interchange to the beach and the installation of smart cities infrastructure.

Access to services and amenity

Education

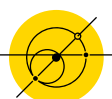
The region's tertiary and vocational education cluster includes the University of Newcastle and specialised education across the Hunter, supported by 13 TAFE NSW campuses (see Pillar 2: Study).

Health

John Hunter Hospital is the region's premier hospital and is the major trauma and teaching hospital outside Sydney. The Hospital plays an important part in the state's network of tertiary services, serving not just its local and regional communities, but people from around NSW⁹.

⁸ Transport for NSW (2018) *Regional NSW Services and Infrastructure Plan*. p. 134

⁹ John Hunter Hospital, Hunter New England Health: <http://www.hnehealth.nsw.gov.au/John-Hunter-Hospital/About-us/Pages/Our-History.aspx> (accessed 22 February 2021)



Environment

The region boasts a unique and outstanding natural environment, highlighted by close proximity to National Parks, State Forests and beaches.

The Hunter has an array of pristine beaches, Lake Macquarie – Australia’s largest saltwater lake, the Hunter River, Manning River, the bays of Port Stephens and the Wallis, Smith and Myall Lakes give residents the opportunity to relax and indulge in water based recreation including sailing, water skiing, surfing, fishing and swimming.

Events and attractions

Supporting the natural environment, the Hunter region also supports extensive events and attractions. From wine tasting in Australia’s oldest wine region to bushwalking in World Heritage wilderness, the Hunter is an appealing escape like no other. The region also thrives with acclaimed restaurants, festivals, beautiful heritage and ancient rainforest in the Hunter Valley, Upper Hunter and Barrington Tops¹⁰.

The Hunter is home to a wide range of events and festivals that attract an increasing number of visitors to the Region. These include the Newcastle Jazz Festival, Mattara Festival, Hunter Valley Food & Wine Festival, Bitter & Twisted International Boutique Beer Festival, Real Film Festival, Hunter Valley Electric Vehicle Festival, Lovedale Long Lunch, This That Festival, Taree Aquatic Powerboat Easter Spectacular, Hunter Valley Steamfest, Dungog Rodeo, Love Sea Food Tastes Port Stephens, Scone and Upper Hunter Horse Festival, Festival of the Fleeces, Blue Water Country Music Festival and many others. A number of regional shows are also held annually.

Comparative affordability

Perhaps one of the most compelling lifestyle attributes for the region is the Hunter’s relative affordability to Greater Sydney, presenting an attractive lifestyle proposition (Table 1).

Greater housing choice is available in existing and new communities. Current priorities are increasing diversity and choice in housing offering across the region.

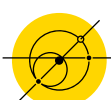
Table 1. Relative affordability measure for the Hunter region.

	Median weekly household income	Median weekly rent	Median monthly mortgage repayments ¹¹
Newcastle and Lake Macquarie	\$1,331	\$330	\$1,733
Hunter Valley (exc. Newcastle)	\$1,286	\$290	\$1,733
Greater Sydney*	\$1,750	\$440	\$2,167

*Greater Sydney Greater Capital City Statistical Area – includes Central Coast

¹⁰ Visit NSW, The Hunter, <https://www.visitnsw.com/destinations/hunter> (accessed 22 February 2021)

¹¹ ABS (2016) Census of Population and Housing



Pillar 2: Study

Education and training a key employment sector in the Hunter, employing over 26,000 people – with Greater Newcastle the largest centre of education employment in Regional NSW¹².

This pillar also supports research and development and ensures the local labour market is equipped to deliver for industry and the community.

The *Greater Newcastle Metropolitan Plan* sets out a vision for Newcastle to become one of Australia's major University cities. This relationship is a great attractor for Newcastle's lifestyle offering, talent attraction, and the foundation of a knowledge and innovation economy.

The University of Newcastle

The University of Newcastle (UON), a top 200 University globally and in the top 8 in Australia for research 'well above world standard'¹³. In 2020, UON was ranked 45 in the world for impact by the Times Higher Education Impact Rankings.

Over 37,000 students were enrolled at the University of Newcastle in 2020 across two campuses at Callaghan, and Honeysuckle. 94.8% of postgraduate students from UON find employment within four months of graduating, above the Australian university average¹⁴.

The Honeysuckle campus in Newcastle City Centre is the beginning of the \$95 million NUspace education precinct. The master planned site for the Honeysuckle City Campus is currently under construction and expected to be completed in the next ten years.

UON is a collaborator and connector with over 450 research and development partners, demonstrating the region's commitment to collaboration and integrated research opportunities.

Health and Innovation Precinct

A health and innovation precinct is being developed in Newcastle – with John Hunter Hospital at its centre, and teaching and research supported by the University of Newcastle and Hunter Medical Research Institute.

International University presence

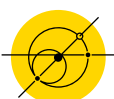
Japan's Nihon University will soon have its first international campus on the site of the former Newcastle Court House. The campus is expected to be completed by the end of 2021¹⁵.

¹² DPIE (2018) *Greater Newcastle Metropolitan Plan 2036*, p. 9

¹³ University of Newcastle, 'Our Uni'. <https://www.newcastle.edu.au/our-uni>

¹⁴ QILT Graduate Outcomes Survey 2017-2019

¹⁵ Kelly, M. (2020) 'Nihon University's Newcastle campus on track for completion next year', Newcastle Herald, August 9 2020. <https://www.newcastleherald.com.au/story/6867839/nihon-newcastle-campus-taking-shape/>



Vocational education and training

Across the Hunter TAFE NSW supports 13 campuses, including a Connected Learning Centre at Scone¹⁶, that provide vocational qualifications for applied trades and creatives.

Education specialisation

Specialised education facilities target regional economic strengths, including:

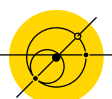
- Energy and resources at the University of Newcastle's NIER facility, and CSIRO's Energy Centre
- Health education and research at the University of Newcastle and John Hunter Hospital
- Creative industries at Hunter Street TAFE in Newcastle
- Advanced manufacturing at Newcastle SkillsPoint TAFE
- Defence at the University of Newcastle
- Hospitality and viticulture at Cessnock TAFE
- Agribusiness, supported by Tocal Agricultural College and UON Upper Hunter
- Equine research at Scone's Hunter Valley Equine Research Centre, and
- Fisheries research at the NSW Government Fisheries Research Centre at Port Stephens.

The challenge for the Hunter region is retaining these skilled people. The region is a net creator of surplus talent: the University attracts more students and creates more graduates than the Hunter can currently retain from an employment vacancy perspective.

Retaining skilled people by facilitating local opportunities is a priority of the Greater Newcastle Metropolitan Plan, and central to the success of City of Newcastle's Smart City agenda¹⁷.

¹⁶ TAFE NSW, 'Places to study: Hunter and Central Coast'. <https://www.tafensw.edu.au/locations/hunter-central-coast>

¹⁷ City of Newcastle (2017). *Smart City Strategy 2017-2021*.



Pillar 3: Invest

The Hunter is Australia's largest regional economy, contributing over \$34.7 billion to the NSW economy¹⁸. Future opportunities should leverage the established factors of production to create enterprise, high value jobs, products, and services. Infrastructure, land use, talent, supply chains, access to markets, energy and water security support this pillar.

Location and Infrastructure

The Hunter has distinct locational and infrastructure advantages that give the region a platform for success, regardless of industry sector.

As the second largest city in NSW Greater Newcastle has the size and scale for growth, particularly in population serving industries. Health care and education are already regional strengths, supported by drawcard institutions in John Hunter Hospital, the University of Newcastle, and TAFE NSW's 13 Hunter campuses. This leadership in health and education supports outcomes north of the region – from the Hunter all the way to the Queensland border.

Investment opportunities in the region can leverage the proximity to Greater Sydney and geographic location on the eastern seaboard, well connected by road and rail infrastructure and the global gateways of Newcastle Airport and the Port of Newcastle – enabling access to local, regional, national and international markets. The Airport and Port present major growth opportunities for export and for developing new industry capabilities.

The Hunter can also draw on its wealth of experience in logistics and supply chains to support growth. For instance, the Hunter's power distribution infrastructure already services the majority of the State and could facilitate the distribution of new energy sources.

Talent – supported by a maturing innovation ecosystem

312,100 people were employed in the Hunter region in November 2020. The largest industries by employment in the Hunter reflect the region's specialisations in health, education, manufacturing and mining, with a growing service and visitor economy supported by a labour force employed in retail, and accommodation and food services (Table 2).

¹⁸ NSW Office of Regional Economic Development, 'Hunter Region', <https://www.investregional.nsw.gov.au/regions/hunter/>

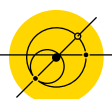


Table 2. Top ten industries by employment for the Hunter region (November 2020)¹⁹

Industry of Employment	Total Employed	Distribution
Health Care and Social Assistance	48,500	15.5%
Retail Trade	35,800	11.5%
Construction	31,900	10.2%
Education and Training	26,300	8.4%
Accommodation and Food Services	23,900	7.7%
Professional, Scientific and Technical Services	23,100	7.4%
Public Administration and Safety	21,000	6.7%
Manufacturing	16,900	5.4%
Mining	15,600	5.0%
Transport, Postal and Warehousing	11,800	3.8%
Administrative and Support Services	11,200	3.7%

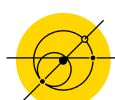
The Hunter's workforce is also talented, with a skills base specialising in Science, Technology, Engineering and Mathematics (STEM). One in four adults have a formal STEM qualification²⁰. The ongoing development of a STEM specialised workforce is supported by a number of targeted programs. The RDA Hunter's Skilled Workforce Initiative²¹ partners with education and industry to develop workforce skilling programs, including:

- ME Program, linking Hunter students with defence industry partners to deliver industry-led careers and pathways, while upskilling students in preparation for STEM jobs, and
- STEMship, a Hunter based vocational education and training (VET) program developed in 2016 in partnership with the Department of Industry and TAFE NSW , promoting job creation and access to training and placements in defence and advanced manufacturing.

¹⁹ Source: ABS Employment by Industry Data (November 2020)

²⁰ NSW Office of Regional Economic Development, 'Hunter Region', <https://www.investregional.nsw.gov.au/regions/hunter/>

²¹ RDA Hunter, 'Skilled Workforce Initiative'. <https://www.rdahunterstem.org.au/>



A maturing innovation ecosystem is emerging in the Hunter, providing opportunities for SMEs, start-ups and scale-ups to test and trial. Highlights²² of this innovation ecosystem are highlighted below. The groundwork is being laid for the beginnings of a distinct regional identity – led by innovation and creativity, as a place to test and trial new technologies.

Hunter Innovation Ecosystem

Regional Startup Support Network

- Startup and early growth support: Slingshot, New Startups, Hunter Futurepreneurs, Lunaticks Society, Hunter Angels
- Makerspaces and co-working spaces, including Dashworks, the industrial prototyping accelerator The Melt at Warners Bay, and Eighteen04
- Regional innovation events - the Hunter Innovation Festival

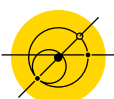
Research-Industry Collaboration

- The University of Newcastle's Integrated Innovation Network (I2N) Hubs at Hunter Street, Williamtown and Upper Hunter
- Williamtown, home to Williamtown Aerospace Centre, Astra Aerolab and the recently announced Special Activation Precinct.
- Research institutes and centres that prioritise industry collaboration and R&D, led by the University of Newcastle's Newcastle Institute for Energy and Resources (NIER) and the Hunter Medical Research Institute (HMRI)
- CSIRO's Energy Centre, which hosts the solar field and energy research hub
- TAFE NSW's Innovative Manufacturing, Robotics and Science SkillsPoint campus, located in Newcastle

Regional Industry Association Support

- RDA Hunter
- Hunter Business Chamber
- Ai Group - Manufacturing Innovation Cluster
- HunterNet Co-Operative - with targeted support for Manufacturing and Defence

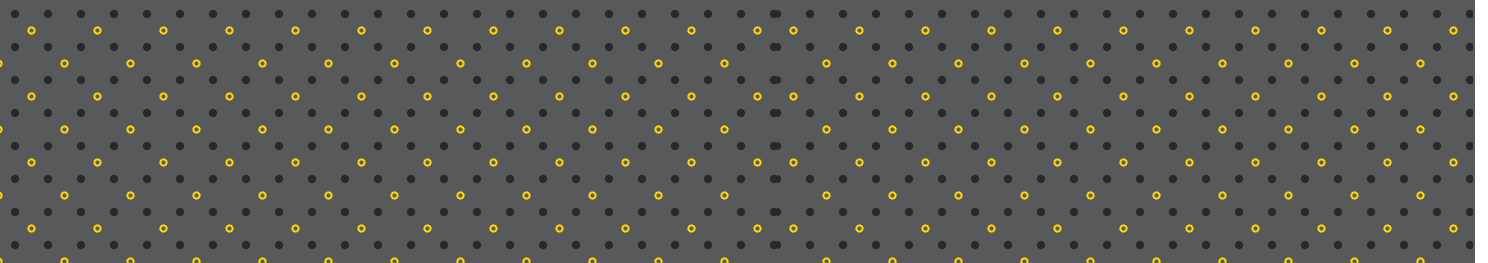
²² HunterIF have catalogued a complete innovation ecosystem map for the Hunter and Central Coast: <https://hunterif.com.au/innovation/hunter-innovation-ecosystem/>





SECTION 2

FOCUSING ON THE INVEST PILLAR: 8 PRIORITY INDUSTRY SECTORS FOR THE HUNTER



Prioritising the Hunter's investment opportunities

The section outlines eight industry sectors that should be prioritised and incorporated into the regional brand – with a bias towards non-population serving sectors where organic growth will occur without intervention. In order of priority:

Established industries with emerging regional opportunities in industries experiencing rapid change.

1. Defence and Aerospace
2. Energy and resources
3. Health

Established industries, which will continue to support regional growth as the sectors adapt and change.

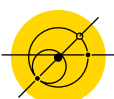
4. Food and agribusiness (including viticulture)
5. Mining equipment, technologies and services
6. Tourism and hospitality

The Hunter's **enabling capabilities**, which support opportunities across the region regardless of industry sector.

7. Advanced manufacturing
8. Creative industries

The co-existence of these sectors within a regional offering is a point of difference for the Hunter, enabling a cross-pollination of skills and capabilities and resilience against economic downturns in single sectors.

A concentration of expertise in industries that dovetail with each other give the Hunter the agility to pivot and innovate. In particular, the regional enablers present opportunities to harness skills in one sector to support the development of another – for example, advanced manufacturing, education and health.



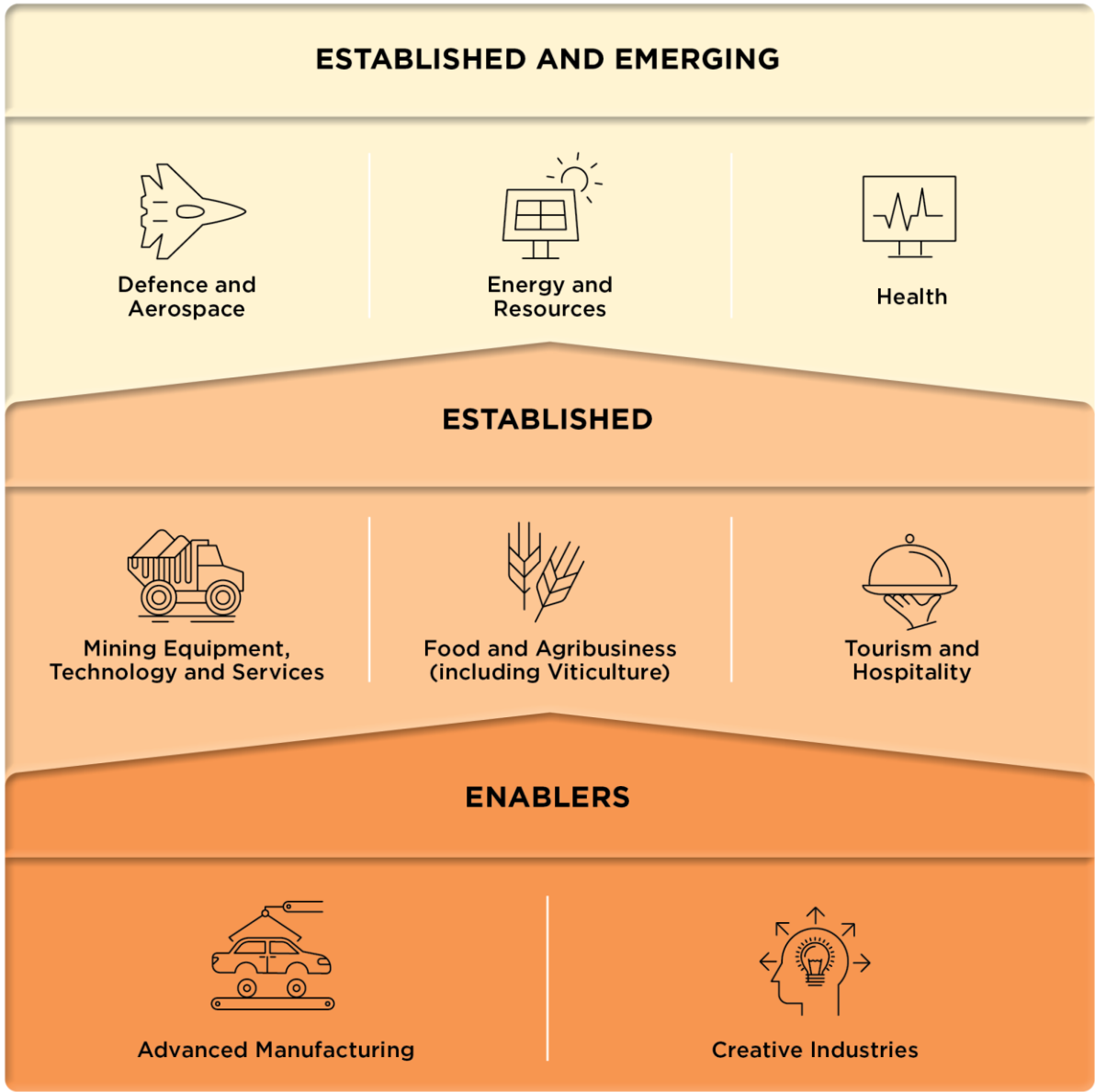
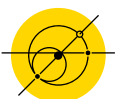


Figure 6. Eight industry sectors identified to support the Hunter's regional brand proposition.



Established Industries with Emerging Opportunities

1. Defence and Aerospace

Snapshot

The Hunter has a long-standing and proud history in supporting Australia’s defence sector, hosting key RAAF and Army bases, with leading capability in the provision of services and maintenance of technologies for the defence and aerospace industries.

- Defence has a billion-dollar presence in the Hunter. In 2014-15 the Hunter’s regional economic contribution for defence was \$1.31 billion – the largest in regional NSW (Figure 7). In the same year 4,630 people were employed in defence and defence industries in the Hunter.
- Williamtown RAAF base is NSW’s largest air force base, directly employing 4,500 people and supporting numerous related industries. It is the home base for Air Combat Group’s tactical fighter element and over 150 aircraft – including F35 Joint Strike Fighters, Hawk 127, and E-7A Wedgetail squadrons²³.
- In May 2020 the NSW Government announced \$5 million to establish a Special Activation Precinct (SAP) at Williamtown – a strong commitment to an ongoing defence presence.

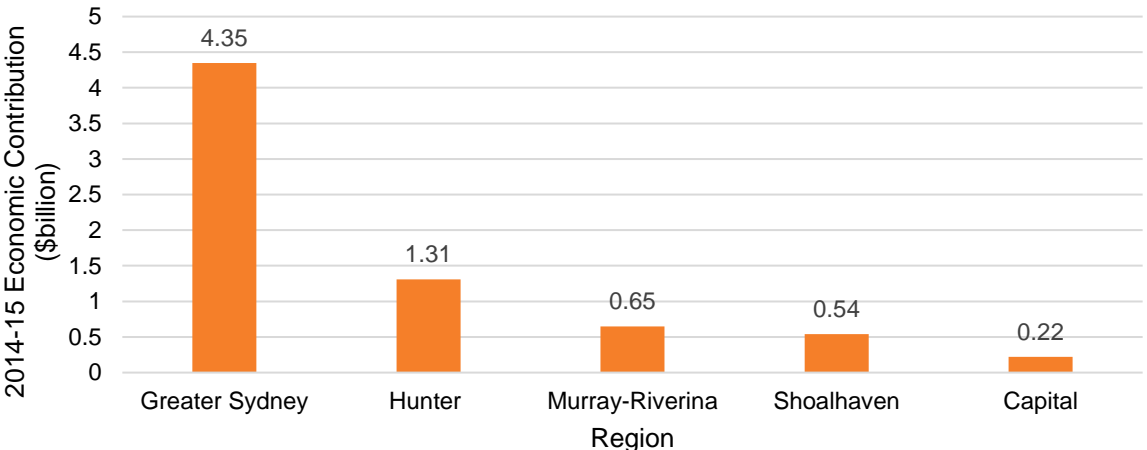


Figure 7. Regional economic contribution of Defence (2014-15). Data Source: New South Wales: Strong, smart and connected The NSW Government Defence and Industry Strategy 2017.

²³ Royal Australian Air Force, 'RAAF Base Williamtown'. <https://www.airforce.gov.au/about-us/bases/new-south-wales/raaf-base-williamtown>



Current Ecosystem

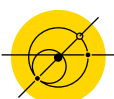
- It is the Air Force's intent that Williamtown remains the nation's main fighter pilot training base²⁴. The relative importance of Williamtown to RAAF operations is strengthened by the arrival of the F-35 Joint Strike Fighters in 2018. Sustainment activities for the F-35 squadron is anticipated to create approximately 400 jobs over the next 10 years – which will be sustained throughout the 30 year duration of the contract²⁵.
- Existing network of global defence prime contractors, including Thales, BAE Systems, Boeing Defence, Lockheed Martin, Varley Group, Northrop Grumman, Airbus/Hensoldt, Raytheon.
- Defence research in the region is championed by UON. UON's research capability is nationally significant, specialising in aerospace systems, autonomous systems, cyber security, energy and power storage and generation. Innovation and research capacity is strengthened by partnerships with defence primes and a competitive cluster of advanced manufacturing SMEs.
- Education and training that specialises in skills and capabilities supporting the defence sector. RDA Hunter's ME program provides local secondary students with an awareness of defence industry careers and upskills students in preparation for STEM jobs. UON and Hunter TAFE both specialise in courses that prepare students for jobs supporting the defence sector. UON is one of 7 Universities in the NSW Defence Innovation Network.
- The defence sector has strong regional representation, headlined by the Hunter Defence Task Force. The Task Force is unique in the country at a regional scale, and is focused on demonstrating the capability and value proposition of Hunter industry suppliers, supporting industry to win contracts, and preparing SMEs to be 'defence ready'.
- The Hunter has maritime capability, with a naval ship repair facility at Carrington. In 2017 Thales Australia began renewal of the Fitzroy Street shipyard precinct at the Port of Newcastle, with potential to reactivate the Hunter as a major marine ship repair and maintenance precinct for the East coast of Australia²⁶.
- The Lone Pine Army Barracks, located at Singleton Military Area base, is a training base for infantry and Special Forces.

²⁴ Royal Australian Air Force, 'RAAF Base Williamtown'. <https://www.airforce.gov.au/about-us/bases/new-south-wales/raaf-base-williamtown>

²⁵ BAE Systems, 'F-35 Program'. <https://www.baesystems.com/en-us/feature/joint-strike-fighter>

²⁶ NSW Government (2017) 'Newcastle to be revitalised with new maritime hub', Media release, 29 June 2017.

<https://www.industry.nsw.gov.au/media/releases/2017/2017-media-releases/newcastle-to-be-revitalised-with-new-maritime-hub>

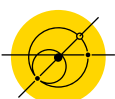


New Opportunities

- The announcement of the Williamtown SAP in May 2020, supporting the growth of the aerospace industry around Newcastle Airport and the Williamtown RAAF base and bringing more than 5,000 direct jobs to the region.
- Research, development and innovation clustering at Williamtown. The Astra Aerolab technology park, funded by the NSW Government, is Australia's newest defence and aerospace precinct. With airside access to the RAAF base, Astra Aerolab offers space to size and scale, and is a competitive relocation value proposition for primes and SMEs. UON's Integrated Innovation Network (I2N) Hub in Williamtown will advance discovery, innovation and commercialisation in the defence sector.

The Hunter's platform for Defence and Aerospace:

- Nationally significant RAAF operations – Williamtown the headquarters and nerve centre for Australia's air combat capability.
- The Hunter has specialisation and expertise across the defence value chain. Clustering of key defence primes (including BAE Systems and Lockheed Martin) with an emerging SME base supported by the Hunter Defence Taskforce. This specialisation is given a larger platform by the announcement of the Williamtown SAP.
- The Hunter has leading research capabilities in defence and aerospace with strong industry collaboration, headlined by the University of Newcastle and Williamtown Aerospace Centre.
- Specialised study opportunities at the University of Newcastle and Hunter TAFE, offering courses preparing the next generation of defence and aerospace.
- Lifestyle opportunities support the relocation of defence families, with comparative affordability and an attractive amenity offering.



2. Energy and Resources

Snapshot

The Hunter has globally renowned expertise in the energy and resources sector, and extensive energy and power distribution networks that service the region and the state. With targeted investment and support for the transition to alternative energy, the Hunter is well positioned to cement its comparative advantage in energy and resources.

- The Hunter generates over 44% of New South Wales' power needs²⁷, with significant coal-fired power stations operated by Origin Energy and AGL. The Hunter Valley coal chain remains nationally significant for energy creation and power generation.
- The Port of Newcastle is the world's leading coal export port, exporting 158 million tonnes of coal in 2020 – valued at \$18.5 billion²⁸. The coal supply chain is well connected to regional, national and international markets – through road and rail, Port of Newcastle and Newcastle Airport.
- Australia's energy supply is gradually diversifying from traditional sources to renewable sources. The Hunter can position itself as the bridge between past and future of energy generation, driven by industry-leading research at the CSIRO Energy Centre and the University of Newcastle's Newcastle Institute for Energy and Resources (NIER).
- The Hunter is quickly moving to the forefront of the transitioning energy and resources market. In early 2021 plans to build two of the largest battery projects in the world were announced at Eraring and Kurri Kurri, and the Hunter region was selected to develop Australia's hydrogen supply chain.
- Power generation is a key employer in the Hunter, directly employing approximately 2,200 people²⁹. The Hunter also has an existing talent pool in energy processes and procedures, with experience in operating environments and managing high voltage assets, and existing client bases and sales channels for power generation.

Current Ecosystem

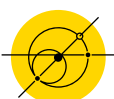
- Currently, coal-fired power and electricity generation is a significant contributor to employment in the Hunter. The Upper Hunter is one of three major coal-fired generating regions in the State, alongside the Central Coast and Lithgow. Origin Energy's Eraring Power Station in Lake Macquarie is the largest power station in Australia and has a capacity of 2,880 MW. AGL Macquarie in the Upper Hunter is one of Australia's major electricity generators, providing approximately 35 percent of the State's electricity needs. This equates to approximately 15,000 GWh of electricity a year³⁰ - enough energy to power two million average Australian family homes.
- The Hunter region is positioning itself as a leading global innovator in power generation. The Hunter is the location for the CSIRO Energy Centre, which hosts the solar field and energy research hub. The Newcastle Institute for Energy and Resources (NIER) located at the

²⁷ DPIE (2016) *Hunter Regional Plan 2036*, p. 34

²⁸ Port of Newcastle (2020) *December 2020 Monthly Trade Report, Year To Date*.

²⁹ Hunter Business Chamber (2019) *Submission – Inquiry into the Sustainability of Energy Supply and Resources in NSW, September 2019*, p. 7.

³⁰ AGL, 'AGL Macquarie'. <https://www.agl.com.au/about-agl/how-we-source-energy/agl-macquarie>



University of Newcastle was established in 2010. NIER has almost 150 active industry partners and undertakes research that advances resource sustainability and new energy technologies – including hydrogen production, storage and utilisation³¹.

- NIER also hosts the only national centre of excellence for the eco-efficient beneficiation of metals – leading the new energy economy, based in the Hunter’s existing strengths in Mining Equipment, Technology and Services (METS). Improving the worth of resources in the Hunter, while delivering water and energy efficiency.
- The Hunter’s existing energy generation and transmission infrastructure is part of the National Electricity Market, which services most of Eastern Australia. Established distributions networks include high voltage transmission lines and associated grid infrastructure and gas infrastructure, which can be pivoted to renewable energy.
- A highly nimble and skilled workforce is supported by specialised education offerings at the University of Newcastle and TAFE NSW.

New Opportunities

- Coal-fired power stations are reaching the end of their technical lives. All five operating coal-fired power stations in NSW are scheduled for retirement between 2022 and 2043³². AGL Macquarie’s coal-fired power generation plants in Liddell and Bayswater will be shut down in 2023 and 2035 respectively, potentially displacing some 600 jobs
- In response to the closure of the Liddell plant in 2023 AGL is proposing to replace power generation with a mix of high-efficiency gas power stations, renewables – including a pumped hydro project, and battery storage. The first stage is a \$400 million gas-fired power station, which is anticipated to be operational in 2022³³.
- In February 2021, National Energy Resources Australia (NERA) selected the Hunter region as a location for the development of the hydrogen supply chain. The Hunter Hydrogen Technology Cluster, as the only Regional Cluster for NSW, is supported by several local industry associations, businesses, TAFE and The University of Newcastle, and spans the Hunter, Central Coast and Orana regions of the state³⁴
- The Hunter is a testbed for large scale battery projects. Origin Energy has announced plans for a large-scale battery on the former Eraring site, with an overall capacity of up to 700MW³⁵. CEP Energy secured a 30-year lease to install a 1200MW battery at Kurri Kurri, which would be the world’s largest battery and eight times more powerful than the Hornsdale battery in South Australia³⁶.
- Economic diversification of the *Upper Hunter Diversification Action Plan* relies on drought proofing the Hunter. If water resources can be managed more effectively, there is significant

³¹ NIER (2020) Annual Report 2019-2020. <https://www.newcastle.edu.au/research/centre/nier/publications/annual-report>

³² NSW Government (2019). *NSW Electricity Strategy*.

³³ AGL, ‘Newcastle Power Station: Fact Sheet’. <https://www.agl.com.au/-/media/aglmedia/documents/about-agl/how-we-source-energy/newcastle-power-station/factsheet--newcastle-power-station-project.pdf?la=en&hash=CAEF257D01F235D3A2E432475CB3A698>

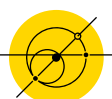
³⁴ University of Newcastle (2021) ‘Hunter region nominated as a hydrogen technology cluster’.

<https://www.newcastle.edu.au/newsroom/featured/hunter-region-nominated-as-a-hydrogen-technology-cluster>

³⁵ Origin Energy (2021) ‘Origin progresses plans for nation’s largest batter at Eraring Power Station’.

https://www.originenergy.com.au/about/investors-media/media-centre/origin_progresses_plans_for_nations_largest_battery_at_eraring_power_station.html

³⁶ Farquhar, L. & Bryce, B. (2021). ‘Plans unveiled for world’s biggest battery in the Hunter Valley’, *ABC News*, 5 February 2021. <https://www.abc.net.au/news/2021-02-05/plans-unveiled-for-worlds-biggest-battery-in-hunter-valley/13124814>



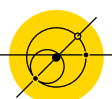
potential for jobs creation in agribusiness production in the Upper Hunter. Water security is one of NIER's research roadmap priorities.

- The NSW Government is in the early stages of feasibility for establishing Renewable Energy Zones in the Hunter-Central Coast and Illawarra regions of NSW, as set out under the *Electricity Infrastructure Investment Act 2020*.
- Leading Edge Data Centres are investing almost \$20 million to build a regional data centre campus in Mayfield, delivering local cloud-based services and storage for Hunter enterprises – reducing the reliance on metropolitan infrastructure. The data centre in Mayfield will be the first of 14 planned for Regional NSW³⁷

The Hunter's platform for Energy and Resources

- The Hunter can be the engine room of the energy transition. Its long-standing expertise in energy generation position it to be a leader in energy transition, if this expertise is used wisely.
- Research capability in the Hunter, led by CSIRO's Energy Centre and NIER, position it well to be a leader in the development of renewable energy technology and power generation, including hydrogen.
- The region has the requisite solar, wind and geothermal resources to experiment and research alternative energies. Showcase, industry-leading demonstration projects are under development in the Hunter that will deliver large-scale alternative energy production – utilising solar, wind and biofuel.
- Existing distribution networks, which can be pivoted with relative ease to distribute alternative energy sources and support energy transmission from neighbouring regions

³⁷ NSW Office of Regional Economic Development, 'Leading Edge Data Centres', <https://www.investregional.nsw.gov.au/success-stories/leading-edge-data-centres/>



3. Health

Snapshot

- Health Care and Social Assistance is the largest provider of jobs in the Hunter region, comprising 15.5 percent of the Hunter's total workforce in 2020³⁸. Health Care and Social Assistance is projected to have the largest growth by industry in the Hunter in the short-term: 12% growth projected to May 2024³⁹.
- The impacts of population ageing will be felt more strongly in the Hunter region. The cohort with the largest growth rate in the Hunter is the 65+ age group, projected to grow by 37% to 2041⁴⁰. While this will bring challenges to health provision, it also makes the Hunter a living lab for the innovative delivery of health services and medical technologies for ageing populations.
- Research and innovation, led by the Hunter Medical Research Institute (HMRI), research expertise at the University of Newcastle and the Hunter's National Centre of Excellence for Health and Education position the Hunter to be a fast mover in medical technologies and pharmaceuticals.

Current Ecosystem

- John Hunter Hospital is the principle referral centre and tertiary hospital for the Hunter region, and has a pivotal role in supporting regional health outcomes north of the Hunter to the Queensland border. The close relationship between the UON and John Hunter enables industry-driven research and the development of a skilled workforce.
- The NSW Government has committed \$780 million in establishing the John Hunter Health and Innovation Precinct, which includes upgrades to John Hunter Hospital and John Hunter Children's Hospital⁴¹.
- The Hunter Medical Research Institute (HMRI) was established in 1998 and is the second largest medical research institute in New South Wales. HMRI supports the Hunter's internationally recognised health and medical research, education and training focusing on six research streams: brain and mental health, cancer, cardiovascular, pregnancy and reproduction, public health, and viruses, infections/immunity, vaccines and asthma. HMRI facilitates 1500 medical researchers, students and support staff, and received \$22 million in funding in 2019⁴².
- The Hunter is also a national leader in equine health, with the Hunter Valley Equine Research Centre at Scone Equine Hospital supporting the world's second largest thoroughbred horse breeding industry and delivering innovative equine reproduction methods.

³⁸ Australian Government Labour Market Information Portal, 'Labour Force Survey, four quarter average (November 2020)' <https://lmip.gov.au/default.aspx?LMIP/EmploymentRegion/NewSouthWalesACT/Hunter/EmploymentDistributionbyIndustryvsState>

³⁹ Australian Government Labour Market Information Portal, 'Regional Projections – five years to May 2024'. <https://lmip.gov.au/default.aspx?LMIP/GainInsights/EmploymentProjections>

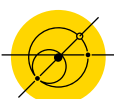
⁴⁰ DPIE (2019) Population, Household and Implied Dwelling Projections by DPIE Planning Region.

⁴¹ Hunter New England Local Health District, 'John Hunter Health and Innovation Precinct'.

<http://www.hnehealth.nsw.gov.au/Our-building-projects/Pages/John-Hunter-Health-and-Innovation-Precinct.aspx>

⁴² HMRI (2020) *2020 Research Update*.

https://hmri.org.au/sites/default/files/hmri_research_impact_2020_v2_dps_060720.pdf



New Opportunities

- The Hunter has the platform to develop a nationally significant health and education precinct. The Hunter New England Local Health District is one of the largest in the State, supported by a high-quality research University, and a well-established Medical Research Institute.
- The Health sector can co-design and co-deliver innovation alongside the other industry sector specialisations in the Hunter. In a rapid response to need COVID-19, Hunter engineering company Ampcontrol developed Ventasys, a low-cost back-up ventilator solution. Ventasys has since progressed to full manufacturing of up to 100 units⁴³
- An ageing population supports greater investment in the medical technology and health care sectors. The Hunter's population is an opportunity to leverage innovation and smart cities infrastructure to provide specialised healthcare. Opportunities also exist to partner with the private health care providers.
- Growth is occurring in population serving health services as the region grows. It is a State government priority to supporting allied health facilities across the Hunter, such as the Manning Rural Referral Hospital at Taree. A health precinct will be established around Metford⁴⁴ - the new Maitland hospital on track to open in early 2022⁴⁵.
- Emerging opportunities exist in Medical Technology and Pharmaceuticals – one of the Federal Government's Industry Growth Centres. Medical Technology and Pharmaceuticals added \$5.2 billion GVA to the Australian economy in 2019⁴⁶. The Hunter has the makings of an advantageous medical technology and pharmaceuticals value chain, with key components already in place – including a University, a leading medical research institute in HMRI, an anchor institution in John Hunter Hospital – strengthened by the John Hunter Health and Innovation Precinct, and enabling capabilities in advanced manufacturing⁴⁷
- Another opportunity for the Hunter to lead is digital health solutions. The Hunter can play a leading role in telehealth and telediagnosics, testing and trialling technologies to support regional NSW across distance.
- Local leadership in MedTech is also emerging – in June 2020 RDA Hunter and Ai Group formed the MedTeCCH industry network, with a goal to lead the development of a sustainable, commercially successful MedTech ecosystem in the Hunter and Central Coast⁴⁸.

⁴³ Ampcontrol Group (2020), 'Ampcontrol unveils its fully developed life-saving ventilators', 9 September 2020.

<https://ampcontrolgroup.com/ampcontrol-unveils-ventilator/>

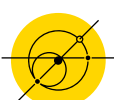
⁴⁴ DPIE (2016) *Hunter Regional Plan 2036*, p. 29 (Objective 8.5)

⁴⁵ NSW Health, 'New Maitland Hospital Development'. <http://newmaitlandhospital.health.nsw.gov.au/>

⁴⁶ MTP Connect (2020) *Sector Competitiveness Plan (2020 Update)*.

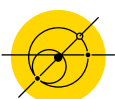
⁴⁷ MTP Connect (2020) *Sector Competitiveness Plan (2020 Update)*, p. 7

⁴⁸ MedTeCCH Industry Network, <https://www.medtecch.org.au/>



The Hunter's platform for Health

- Skilled labour force pool, supporting a growing and ageing population
- With leading health and education expertise the Hunter can be a living lab for healthy ageing and the testing and trialling of innovative health solutions
- The component parts are already in place for a nationally significant health and education precinct, with the size and scale of the Hunter Medical Research Institute, Hunter New England Local Health District, University of Newcastle and John Hunter Hospital
- Opportunities to build out medical technology capabilities, supported by established components of a regional medtech value chain, and advanced manufacturing



Established Industries

4. Food and Agribusiness (including viticulture and equine)

Snapshot

- The Hunter produced \$628 million of regional produce in 2017-18, primarily from cattle, milk and poultry (Table 3). The Hunter leads the State in regional output of commercial fisheries and aquaculture, eggs, milk and cultivated turf.
- The Hunter supports a wide variety of agribusiness. In 2016 there were over 3,500 agricultural businesses in the region, delivering more than \$946 million in wholesale value⁴⁹.
- The Hunter has a clustering of significant players in agribusiness research, training and industry collaboration, including UON, NIER, CSIRO, NSW Department of Primary Industries, TAFE, and Tocal Agricultural College.
- The Hunter's differential in agribusiness is its contribution to tourism and lifestyle amenity value. While only producing 2 percent of the State's grapes, the region is internationally renowned for the Hunter Valley wine industry. The Hunter Valley has more wineries and cellar doors than any other wine region in Australia creating a significant tourism, function and hospitality economy which supports business diversity and resilience⁵⁰.

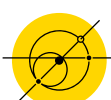
Table 3. Hunter 2018-19 Regional Output Gross Value⁵¹

Commodity Name	Gross value (\$)	Proportion of State Total (%)	Regional Industry Rank
Cattle and calves	\$214,324,161	8%	10
Milk	\$128,104,089	22%	4
Poultry	\$93,239,975	12%	5
Eggs	\$72,156,452	30%	2
Commercial fisheries and aquaculture#	\$58,227,658	32%	2
Nurseries	\$16,132,238	5%	6
Cultivated turf	\$6,222,051	5%	4
Grapes - Wine production	\$5,050,679	2%	5
Wool	\$4,666,488	0%	10
Sheep and lambs	\$4,067,323	0%	10
Total primary industries	\$628,545,548	5%	10

⁴⁹ DPIE (2016) *Hunter Regional Plan 2036*, p. 30

⁵⁰ Destination NSW, 'Hunter Valley'. <https://www.visitnsw.com/destinations/hunter/hunter-valley>

⁵¹ Source: Department of Primary Industries. #Estimated



Current Ecosystem

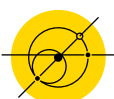
- The Hunter has a wide-ranging and diverse agriculture offering, spanning beef cattle farming, poultry farming, dairy cattle farming and commercial fisheries and agriculture as State significant agricultural outputs. The advantages for the Hunter include ready access to markets, secure water, skilled labour, advanced technology service providers, affordable energy, and affordable fertilizer. While the Riverina, North West NSW and Murray regions lead the State in agriculture output, agribusiness is a regionally significant employer, especially in the Upper Hunter.
- The Hunter's business advantage lies in critical industry clusters in viticulture in the Lower Hunter, and equine in the Upper Hunter⁵² The Hunter Valley is Australia's oldest wine growing region, with a strong visitor economy and functions and events across Cessnock and Singleton Councils.
- The world's second largest Thoroughbred Horse breeding industry is located in Scone in the Upper Hunter and hosts globally significant equine breeding and training facilities. The total value-added economic impact of the breeding industry in the Hunter Valley is worth over \$500 million– almost half of Australia's entire contribution – and supports more than 3,350 direct and indirect FTE jobs⁵³.
- Specialised education opportunities at the University of Newcastle, the NSW Government Fisheries Research Centre at Port Stephens, Scone Research Centre, Tocal Agriculture Centre in Maitland (Centre of Excellence within NSW Department of Primary Industries offering specialised training to rural industries), and the Kurri Kurri campus at Hunter TAFE, specialising in viticulture.
- NIER specialises in research advancing the resilience of regional communities, and has developed research roadmaps targeting innovation in food and agribusiness, and regional water security and resilience⁵⁴ UON is involved in two agribusiness Cooperative Research Centres (CRCs): related to High Performance Soils and Food Agility.
- The Hunter has competitive advantages in the agriculture supply chain due to its proximity to Greater Sydney, and export capabilities via the Port of Newcastle and Newcastle Airport. The Hunter connects regions in the North and West of the State to the South, while also exporting produce overseas. In 2020 the Port of Newcastle exported over 310,000 tonnes of agricultural produce (meals and grains, wheat)⁵⁵ to Australia, New Zealand, Japan, and Singapore.

⁵² DPIE (2016) *Hunter Regional Plan 2036*

⁵³ AgriFutures Australia (2019) *Measurement of economic impact of the Australian thoroughbred breeding industry*. <https://www.agrifutures.com.au/wp-content/uploads/2019/12/18-046.pdf>

⁵⁴ NIER, 'Research Roadmaps'. <https://www.newcastle.edu.au/research/centre/nier/research/research-roadmaps>

⁵⁵ Port of Newcastle (2020) *December 2020 Monthly Trade Report, Year To Date*.



New Opportunities

- The Hunter has land and space to scale up agricultural production. As outlined in the *Upper Hunter Economic Diversification Action Plan*, emerging opportunities for the Upper Hunter include the diversification of agribusiness production – expanding existing industries (dairy, beef, cereals, oil seeds, wine and equine), and exploring emerging (industrial hemp, protected cropping) and new (processing plants) industries⁵⁶. The diversification will be supported by the availability of vast amounts of land through the mining transition – more than 40% of the valley floor as buffer land and rehabilitated land becomes available.
- Food and agribusiness is one of the Federal Government’s six Industry Growth Centres. The FIAL Sector Competitiveness Plan identifies growth of the consumer classes in Asia as a market opportunity Australia is well placed to capitalise on⁵⁷ – the Hunter has locational and infrastructure advantages. Collaboration between research, government and industry is also noted as crucial, in the Hunter encouraged and fostered by NIER and the University of Newcastle’s Integrated Innovation Network (I2N) hubs.
- The Hunter has particular capacity to strengthen its role in agribusiness logistics, with existing advantages in commodity exports and existing economic agreements with Asian markets. The Port of Newcastle is the closest port to agricultural activity in Northern and North-West New South Wales. Planned upgrades over the next five years to the Newcastle Bulk Terminal at the Port of Newcastle will expand existing channel, berth and land capacity⁵⁸. New possibilities for agribusiness logistics will emerge in response to the development of Inland Rail, and the opening of the Nancy Bird-Walton Western Sydney International Airport in 2026.
- The Hunter also has an opportunity to play a larger role in intensive agriculture and food processing for the Greater Sydney market. With connections to food innovation in the Central Coast, the Hunter has an opportunity to produce value added outputs, hosting supply chains close to major local markets.

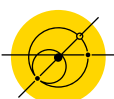
The Hunter’s platform for Agribusiness

9. Niche agribusiness innovation – especially in viticulture and equine, but growth opportunities in Upper Hunter as the region transitions from coal-fired power generation
10. Economic diversification in the Upper Hunter is a pivotal opportunity for agribusiness – the space to size and scale will enable the Hunter to respond to new and emerging market opportunities, such as intensive agriculture and food processing.
11. Competitive advantage in logistics – with freight proximity to local markets, and access to national and international markets via the rail network, Port and Airport.
12. Leading research seeking to secure resilience of regional agriculture in the region, outlined by NIER’s research roadmaps.
13. High brand recognition for quality produce based on reputation of existing industries.

⁵⁶ NSW Government (2018) *Upper Hunter Economic Diversification Action Plan*, p. 4.

⁵⁷ FIAL (2020) *Sector Competitiveness Plan 2020*.

⁵⁸ Port of Newcastle (2019). *Port Master Plan 2040*.



5. Mining Equipment, Technology and Services

Snapshot

The Hunter's mining ecosystem can help to overcome mining sector challenges – a place to scale and size, to innovate and translate research into impact.

- Today's mining industry is knowledge intensive with rising rates of R&D and innovation. As the region divests from coal-fired power generation, knowledge and skills can be transferred to the broader energy sector and other industries. The Hunter's Mining Equipment, Technology and Services (METS) sector is worth \$15 billion and is the third largest in Australia – behind the Pilbara (WA) and Bowen-Surat (QLD) regions⁵⁹.
- The Hunter region has significant research capability in METS, led by NIER, a national METS innovation hub. NIER supports innovative research in minerals and mining, addressing issues concerned with next generation energy, energy storage, energy management, smart energy integration and resources production and distribution.

Current Ecosystem

- Greater Newcastle was the first location for coal mining and export in Australia. Mining is the economic foundation of the Hunter region, and accounts for 30 percent of output in the Hunter region⁶⁰.
- Muswellbrook and Singleton in the Upper Hunter are key locations for Australia's coal mining activity. The Hunter has a significant talent pool to draw upon, mining making up 5 percent of the Hunter's workforce, compared to 1 percent for the rest of NSW⁶¹.
- Research by the NSW Minerals Council shows more than 14,000 people are employed in the Hunter by mining companies, which inject about \$4 billion in direct expenditure into the regional economy and an estimated \$9 billion in total economic benefit⁶².
- Significant research capability in METS, led by NIER. UON's Upper Hunter Energy Research Hub in Muswellbrook is one of four Integrated Innovation Network (I2N) Hubs in the region, supporting diversification and innovation in the Upper Hunter.
- NIER also hosts the Energy and Resources Knowledge Hub, funded by the University and the NSW government. The Hub supports business by sharing knowledge and expertise to overcome challenges in the energy and resources sector and enabling collaboration between research and industry⁶³.

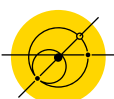
⁵⁹ METS Ignited, 'METS in Australia'. <https://metsignited.org/australian-mets-sector/>

⁶⁰ NSW Office of Regional Economic Development, 'Hunter Region'. <https://www.investregional.nsw.gov.au/regions/hunter>

⁶¹ Australian Government Labour Market Information Portal, 'Employment Distribution by Industry vs State, November 2020'. <https://lmip.gov.au/default.aspx?LMIP/EmploymentRegion/NewSouthWalesACT/Hunter/EmploymentDistributionbyIndustryvsState>

⁶² NSW Mining Industry Expenditure Impact Survey 2017/18, Lawrence Consulting
<http://www.nswmining.com.au/industry/industry-expenditure-impact-survey-2017-18>

⁶³ NSW Government, 'METS – mining equipment, technology and services'. <https://www.business.nsw.gov.au/industry-sectors/industry-opportunities/mining-and-resources/mets-mining-equipment-technology-and-services>



New Opportunities

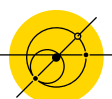
- Coal mining will remain a major export industry in the short term driven by strong demand for coal in overseas markets for power generation.
- The *Upper Hunter Economic Diversification Action Plan* outlines steps towards a continuing mining and engineering services sector as the ecosystem responds to alternative energies, including productivity improvements, investment in clean coal technologies, and support for research and development.
- METS is one of six Industry Growth Centres identified by the Federal Government. METS industries include mining support services, chemical manufacturing, telecommunications, computer systems design, equipment manufacturing and transport.
- The Hunter is a place with agglomeration, with an ecosystem in place to innovate, and SMEs that can start up and scale up. The Energy and Resources Hub's Innovation Launchpad creates opportunities for SMEs to collaborate with NIER researchers and test and trial new technologies for industrial innovation⁶⁴. METS Ignited supports mining businesses pivot and transition and have a collaborative relationship with RDA Hunter.
- Supporting ecosystem of skills and talent across the value chain – including extraction, logistics, and site rehabilitation. The advanced manufacturing capability in the Hunter will develop technology to drive sustainability and innovation in the mining sector. Ai Group's Hunter Manufacturing Innovation Cluster⁶⁵ and HunterNet provide support for industry and help facilitate competitiveness and innovation.
- While the mining sector is exposed to shocks and macro trends that are out of the region's control - dependent on export markets, investment, and government policy – the Hunter is a leader in mining expertise and skills. The world comes to the Hunter to seek out Australian expertise in mining technologies, and Hunter businesses provide expertise supporting other markets where there is more confidence about mining activity continuing.

The Hunter's platform for METS

14. In the short-term mining will remain the most important contributor to the Hunter economy, buoyed by strong international coal demand for power generation.
15. The Hunter has a supporting ecosystem of skills and talent across the METS value chain – including extraction, logistics, and site rehabilitation – enabled by the region's advanced manufacturing capability.
16. Locational advantages, supported by an industry-leading export chain. The Port of Newcastle is the premier coal port in the world, with expertise in logistics and distribution.
17. Skills and talent world leading expertise – exporting knowledge, preparing the local workforce for new opportunities in METS.

⁶⁴ Energy & Resources Knowledge Hub, 'Innovation Launchpad'. <https://www.energyinnovation.net.au/project/innovation-launchpad>

⁶⁵ Ai Group, 'Hunter Manufacturing Innovation Cluster'. <https://www.aigroup.com.au/contact/hunter/manufacturing-innovation-cluster/>



6. Tourism and Hospitality

Snapshot

The Hunter can leverage the region's assets – including the natural environment – to increase visitation and reinforce study and migration campaigns.

- Tourism injected nearly A\$3.0 billion of visitor spend into the region in the year ending June 2019, with a 4.2% annual increase on average in visitor numbers since the year ending June 2010⁶⁶.
- The proximity of Hunter to Greater Sydney makes it a top location for daytrips, and there is room to grow this group. In 2019, the Hunter was ranked second in Regional NSW for international visitors, second for domestic overnight visitors and second for domestic daytrip visitors⁶⁷.
- The Hunter Valley is the region's premier tourism destination. It is the most visited wine region in Australia and is ranked second for leisure tourism destinations in NSW. The Hunter offers a variety of visitor experiences, including environmental tourism at Port Stephens, lively and historical Newcastle City Centre, surf beaches along the coast, and eclectic villages across the region's rural landscape.
- Major annual events include the Hunter Valley Food and Wine Festival, V8 Supercars in Newcastle city centre, Surfest in Newcastle, live music events at Hunter Valley wineries, supported by a busy conference and wedding offer and boutique festival experiences such as Kurri Kurri's Nostalgia Festival.
- Global gateways to the Hunter offer significant potential for tourism growth, via increased capacity at Newcastle Airport and cruise ships at the Port of Newcastle.

Current Ecosystem

- Tourism directly employs around 18,000 people in the Hunter, attracting around 12.5 million visitors annually and well over \$3 billion in visitor spend⁶⁸. In 2019, the visitor economy in the City of Newcastle was valued at \$945 million in economic output and supported close to 5,000 jobs⁶⁹.
- The Hunter Valley wine region is one of Australia's leading tourism destinations. The Hunter Valley is the oldest continuous commercial wine region in Australia. The annual value of the sector was \$631 million in 2019, and employs 2,994 people across the Cessnock and Singleton Local Government Areas – representing \$151 million in wages annually⁷⁰. The Hunter Valley is ranked first in Regional NSW for business events and conferencing, and second as a leisure tourism destination.
- Port Stephens is a leading regional tourism destination in NSW specialising in coastal and marine tourism, Stockton sand dunes, surf beaches. National parks include Manning Valley, Cessnock's connection to Yengo National Park and Dungog's connection to the Barrington Tops National Park.

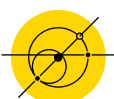
⁶⁶ NSW Office of Regional Economic Development, 'Hunter Region'. <https://www.investregional.nsw.gov.au/regions/hunter>

⁶⁷ Destination NSW, 'Regional Tourism Statistics'. <https://www.destinationnsw.com.au/tourism/facts-and-figures/regional-tourism-statistics>

⁶⁸ DPIE (2016) *Hunter Regional Plan 2036*.

⁶⁹ City of Newcastle (2021) *Draft Newcastle Destination Management Plan 2021-2025*, p. 68.

⁷⁰ Hunter Valley Wine and Tourism Association



- The Australian Cruise Association estimates the economic benefit of cruise shipping to the Hunter’s business and tourism sectors is \$11 million per year⁷¹. Cruises starting from the Hunter, support broader regional destinations via the economic benefits of being the first port of call.
- Prior to COVID-19 disruption to the airline industry, Newcastle Airport set a calendar record in 2019 of 1.284 million passengers. The Airport offers direct flights to and from ten locations, including to New Zealand⁷².
- Compelling regional identity. Over 150 years, the Hunter is has developed into a blend of old and new. Aboriginal, colonial and industrial heritage is in balance with revival of creative industries, visitor economy experience and coastal lifestyle.
- Significant government investment in the public realm from all three tiers– social infrastructure, transport (Hunter Interchange, Newcastle Interchange, Newcastle Light Rail), smart cities initiatives
- Major annual events including: Hunter Valley Food and Wine Month, Newcastle 500 V8 supercars in November, Newcastle Jazz Festival in August, Sculptures in the Vineyards, Newcastle Knights (NRL) and Newcastle Jets (A-League) home games at the 33,000 capacity McDonald Jones Stadium in Broadmeadow.

New Opportunities

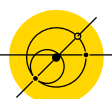
- Responding to COVID-19 disruption, the aim of the *NSW Visitor Economy Strategy 2030* is for the state to be the premier visitor economy of the Asia Pacific by 2030. Until international travel resumes, the domestic market is the primary focus – with emphasis on day trips and overnight stays.
- Despite disruption to the tourism sector during COVID-19, in the year ending June 2020 the Hunter was ranked third in New South Wales for overnight domestic travel by the number of visitors, number of nights, and expenditure (Table 4). With proximity to Sydney and drawcard visitor economy experiences such as the Hunter Valley, the Hunter is well positioned to lead the recovery.
- Increased regional visitation through infrastructure upgrades, including the Hunter Expressway the multi-modal Newcastle Interchange, and faster links to the Hunter via NorthConnex to the south and upgrades to the Pacific Highway in the north.
- Upgrades to Newcastle’s global gateways will further increase visitation (as international travel resumes). By 2036, it is projected that Newcastle Airport will fly a minimum of 2.6 million passengers annually⁷³. Over the next five years, upgrades at the Port of Newcastle will increase cruise ship traffic and support tourism growth in the Hunter via the Newcastle Cruise Terminal and Maritime Precinct⁷⁴
- Greater connection between and within places in the Hunter – creating a ‘package’ experience. The Hunter can benefit from the strength/pull of the Hunter Valley brand. The *Greater Newcastle Metropolitan Plan 2036* highlights new opportunities to develop tourism experiences: including the recreational amenities of Lake Macquarie and the coastline, national parks, and cultural

⁷¹ Port of Newcastle (2019) *Port Master Plan 2040*, p. 55

⁷² Newcastle Airport (2016). *2036 Newcastle Airport vision: Delivering the Airport the region deserves*, p. 13.

⁷³ Newcastle Airport (2016). *2036 Newcastle Airport vision: Delivering the Airport the region deserves*, p. 13.

⁷⁴ Port of Newcastle (2019) *Port Master Plan 2040*



tourism in the historic river and mining towns of Maitland, Cessnock and Raymond Terrace, and villages such as Morpeth, Wollombi and Catherine Hill Bay⁷⁵.

- Increasing visibility and recognition of Aboriginal heritage and culture will create new opportunities for Aboriginal empowerment and employment. In October 2020 it was announced a cultural hub and museum would be developed in Lovedale, through a \$6.3 million NSW Government grant to the Wonnarua Nation Aboriginal Corporation. This Hub and Museum will host a significant collection of local cultural artefacts⁷⁶.

Table 4. The Hunter is well-placed to increase its share of regional tourism during COVID-19 disruption to the industry⁷⁷

Number of visitors	Number of nights	Expenditure
1. North Coast (5.1 million)	1. North Coast (19.3 million)	1. North Coast (\$3.2 billion)
2. South Coast (3.7 million)	2. South Coast (12.6 million)	2. South Coast (\$1.7 billion)
3. Hunter (3.5 million)	3. Hunter (9.5 million)	3. Hunter (\$1.6 billion)
Total Regional NSW: 21.4 million	Total Regional NSW: 71.2 million	Total Regional NSW: \$11.3 billion

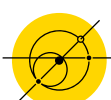
The Hunter's platform for Tourism

- Natural environment, convenient proximity to greater Sydney catchment.
- Transport connections to local, regional, national and international markets.
- Investment in public infrastructure, including transport, has increased connectivity and ease of experience for visitors.
- Inter/national drawcard locations – headlined by the Hunter Valley wine region.
- Workforce is already in place supporting tourism and hospitality sector, and local employment opportunities will continue as tourism numbers increase.

⁷⁵ DPIE (2018) *Greater Newcastle Metropolitan Plan 2036*, p. 25

⁷⁶ Australasian Leisure Management (2020) 'Wonnarua Indigenous Cultural Hub and Museum to be established in Hunter Valley'. <https://www.ausleisure.com.au/news/wonnarua-indigenous-cultural-hub-and-museum-to-be-established-in-hunter-valley/>

⁷⁷ Source: Destination NSW, 'Regional Tourism Statistics'. <https://www.destinationnsw.com.au/tourism/facts-and-figures/regional-tourism-statistics>



Enabling Capabilities

7. Advanced Manufacturing

Snapshot

Advanced manufacturing priorities for the Hunter include improving engagement with international markets and access to global supply chains and increasing engagement between research and industry.

- Advanced manufacturing in the Hunter contributes \$2 billion to the NSW economy – almost a third of regional output, second only to Greater Sydney. The Hunter’s advanced manufacturing sector comprises almost 2,000 businesses, employs 19,656 people and hosts companies across mining, defence, chemical processing, construction and energy generation and distribution⁷⁸.
- Maturing innovation and research ecosystem, supported by specialised University and vocational education offerings, leading research facilities in NIER, the HMRI, and CSIRO’s Energy Centre, smart cities infrastructure, and robust support from the Hunter Business Chamber, HunterNet, Hunter iF and Ai Group.
- The 2018 *NSW Advanced Manufacturing Industry Development Strategy* lists emerging industry sectors in NSW that will require advanced manufacturing capabilities, including construction, defence, aerospace, medical technologies, food and beverage manufacturing, transport and mobility, energy technology and creative industries⁷⁹. With its current ecosystem, the Hunter is well placed to build leading capability across a number of these sectors.

Current Ecosystem

- An advanced manufacturing sector is emerging from the Hunter’s long-standing clustering of manufacturing. Manufacturing is the second largest output generating sector in the Hunter Region, supporting an estimated annual output of \$15.9 billion dollars – second only to mining⁸⁰.
- Advanced manufacturing is closely aligned with the defence and aerospace industry in the Hunter. Developing advanced manufacturing, defence and aerospace hubs is one of the key directions of the *Hunter Regional Plan 2036*. The *Hunter Regional Economic Development Strategy 2018–2022* notes advanced manufacturing as a key opportunity for growth, building on existing strengths that include the local labour force in STEM, educational institutions, linkages with defence sectors⁸¹.
- Innovation hubs and precincts supporting advanced manufacturing start-ups and scale-ups are emerging across the Hunter, including The University of Newcastle-supported Integrated Innovation Network (I2N) hubs in Newcastle (Three76 Hub), Williamstown (DSA-18 Hub), Charlestown (Dantia Smart Hub (DaSH)) and Muswellbrook (Upper Hunter Hub). Other sites across the Hunter include industrial prototyping space The Melt at Warners Bay, Astra Aerolab

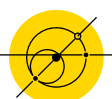
⁷⁸ NSW Office of Regional Economic Development, ‘Hunter Region’. <https://www.investregional.nsw.gov.au/regions/hunter>

⁷⁹ NSW Department of Industry (2018) *NSW Advanced Manufacturing Industry Development Strategy*, p. 10.

⁸⁰ REMPLAN (2020) City of Newcastle Economy, Jobs and Business Insights.

<https://app.rempln.com.au/newcastle/economy/industries/output?state=gZ5wFk!Abq5UergoH06e6ktv3vrQhPu8fJL8lwZvZjf0WYWPfNfoPFKHYHAHm2ZUEk0>

⁸¹ NSW Government (2018) *Hunter REDS 2018-2022*



within the recently announced Williamstown Special Activation Precinct, and the Eighteen04 co-working space in Newcastle.

- The region has a strong track record in industry-research collaboration. NIER has a very high rate of private sector engagement and almost 150 active industry partners, with a research priority to develop advanced materials for industrial innovation, including nanotechnology and organic electronics.
- Many SMEs are supported by industry associations, including HunterNet – a nationally recognised manufacturing network of more than 200 manufacturing, engineering and specialist services companies⁸², Ai Group's Lean Manufacturing and Innovation Cluster, and Hunter iF – supporting the Hunter and Central Coast innovation ecosystem.⁸³ These connect businesses to education and research, nurture start-ups and entrepreneurs and assist with grant funding.
- There are leading State examples of advanced manufacturing success stories in the Hunter including Varley Group who provide a diversified offering across defence and aerospace, health, and energy sectors, and Ampconnect, who pivoted their offering in 2020 to produce ventilators to meet demand during COVID-19.
- Specialised education for advanced manufacturing, building talent and regional capability. The RDA Hunter's ME program is held up as a model for training the advanced manufacturing workforce in the *NSW Advanced Manufacturing Industry Development Strategy*⁸⁴. Newcastle is the location of TAFE NSW's Innovative Manufacturing, Robotics and Science SkillsPoint – offering vocational training for the planning, design and production of goods including machinery and equipment, vehicles, textiles, fashion and clothing⁸⁵.

New Opportunities

- Advanced manufacturing is one of the Federal Government's six Industry Growth Centres. The *AMGC Sector Competitiveness Plan* identifies opportunities for Australia's advanced manufacturing sector in lifting cost competitiveness, increasing value differentiation and shifting market focus to higher potential markets. The Hunter's current ecosystem, industry support and knowledge clusters provide a strong base for a competitive advanced manufacturing sector, through existing regional strengths in defence and aerospace, health, agribusiness and mining, and extending strong industry-research collaboration.
- Advanced manufacturing strengths and opportunities identified for the Hunter by the NSW Government include: Defence systems and equipment, Aircraft maintenance, Crew training systems and Mine disposal⁸⁶.
- The challenge for the Hunter is to host advanced manufacturing supply chains. Opportunities will stem from industry-research collaboration at NIER and the CSIRO Energy Centre. The Hunter offers the potential to scale and make things that are invented here, supported by as industry leading export and logistics.

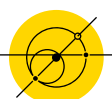
⁸² HunterNet, 'About Us'. <https://hunternet.com.au/about-us/>

⁸³ Hunter iF, 'The Hunter Innovation Ecosystem'. <https://hunterif.com.au/innovation/>

⁸⁴ NSW Department of Industry (2018) *NSW Advanced Manufacturing Industry Development Strategy*, p. 27

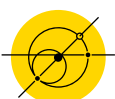
⁸⁵ TAFE NSW, 'SkillsPoints'. <https://www.tafensw.edu.au/enterprise/for-industry/skillspoints>

⁸⁶ NSW Department of Industry (2018) *NSW Advanced Manufacturing Industry Development Strategy*, p. 17.



The Hunter's platform for Advanced Manufacturing

- Manufacturing value chain is an existing strength, including R&D, production and logistics.
- The Hunter can be a knowledge centre for advanced manufacturing – concentration of specialised education offerings, research facilities, industry associations, and local talent.
- Smart city initiatives and enabling technologies rolled out across the Hunter maximises opportunities for advanced manufacturing
- Advanced freight, logistics and distribution networks.



8. Creative Industries

Snapshot

- Newcastle's post-industrial transition is anchored by creative industries and the innovation economy. Major government investment in the city centre – \$650 million is being invested in the revitalisation of Newcastle City Centre
- A major 2019 study into creativity and cultural production in the Hunter identified 6,500 people employed across the arts, design, the media and information technology sectors. Creative industries are conservatively estimated to contribute close to \$1 billion to the Hunter's gross regional product⁸⁷
- The unified Hunter brand will rely on creative industries to create a compelling and distinct lifestyle and tourism offering. Creative industries are important contributors to vibrant communities, the expression of Hunter values and essential for sustainable economic diversification.
- New opportunities are emerging following smart cities and innovation agenda in the Hunter, driven primarily by Newcastle and Lake Macquarie Councils, providing supporting infrastructure and growth for high tech SMEs

Current Ecosystem

- Renew Newcastle, which began in 2008 as a strategy to revitalise empty shopfronts in Newcastle City Centre, is now a national best practice example for regional place activation⁸⁸ and has provided a platform for a diverse regional creative sector. Darby Street, for instance, is a renowned street precinct for creative, innovative small businesses.
- The Hunter has the largest concentration of people employed in the creative industries in regional NSW – one in four working in this sector are based in the Hunter⁸⁹. This talent pool is spread across SMEs in a number of creative sectors, including music, radio, publishing, advertising and design, fashion, visual arts, performing arts, film, television, electronic games and interactive content, architecture, and education and training⁹⁰
- University of Newcastle's School of Creative Industries⁹¹ was launched in 2017. New facilities for the School are planned as part of the University's City Campus development. TAFE NSW's Hunter Street campus specialises in fine arts training and is home to the Newcastle Art School and Newcastle Film School⁹².
- There are pockets of strength in creative industries across the region. Newcastle has a strong history of music and live music. Screen Hunter is a recognised centre for TV and film. Artistic visitor experiences include the eclectic Wollombi and over 60 outdoor murals as part of Kurri Kurri's Town of Murals.
- Annual events that showcase the arts sector, including Sculpture in the Vineyards festival at Wollombi, Dungog Festival, Sculptures at the Farm, the Newcastle Jazz Festival, large music events hosted at Hunter Valley Gardens and other wineries, and the annual Groovin The Moo regional music festival hosted in Maitland.

⁸⁷ McIntyre et al. (2019) *Hunter Creative Industries: Final Report*, p. 12

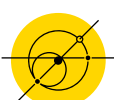
⁸⁸ Renew Newcastle. <https://renewnewcastle.org/>

⁸⁹ DPIE (2016) *Hunter Regional Plan 2036*, p. 26

⁹⁰ For sector-by-sector analysis, see: McIntyre et al. (2019) *Hunter Creative Industries: Final Report*.

⁹¹ University of Newcastle, 'School of Creative Industries'. <https://www.newcastle.edu.au/school/creative-industries>

⁹² TAFE NSW, 'Newcastle, Hunter Street', <https://www.tafensw.edu.au/locations/hunter-central-coast/hunter-street>



- A robust cultural infrastructure ecosystem, including 75 museums, 54 galleries, 52 libraries, and 11 theatres⁹³ – including the Newcastle Regional Art Gallery, Newcastle’s Entertainment Centre and Civic Theatre, and Cessnock’s IPAC Theatre.
- Newcastle was identified by a recent Regional Australia Institute report as a creative ‘hotspot’ for software and digital content⁹⁴.

New Opportunities

- Infrastructure investment supporting creative industries: including the renewal of Newcastle’s West End to become a digitally connected innovation precinct, the expansion of the Newcastle Regional Art Gallery precinct, and the installation of IoT and LoRaWAN networks in Lake Macquarie and Newcastle.
- Through the City of Newcastle’s *Newcastle After Dark Strategy 2018-2022*, Council is creating an enabling environment to restore the night time economy in Newcastle city centre. Steps to restore the cultural and economic value of night life, including identification of unique precincts, opportunities and challenges of each.
- As identified in the *Greater Newcastle Metropolitan Plan*, Greater Newcastle has a competitive advantage in terms of brownfield sites for creative industries, leveraging legacy assets left behind by industrial and heavy manufacturing past⁹⁵.
- Industry associations such as Hunter iF foster the creative and innovation economies through support for SMEs and startups. Artists are supported locally through Hunter Arts, Arts Upper Hunter, and the Wollombi Valley Arts Council. The newly formed Independent Creative Alliance Newcastle (ICAN) advocates for arts and culture in the Hunter region.
- The Hunter Research Foundation is currently undertaking research to measure the impact of COVID on Newcastle artists creatively and financially, and will also collect vital information about the sector such as levels of employment, income, outlook, and future intentions.

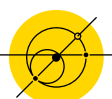
The Hunter’s Platform for Creative Industries

- Major Local and State Government investment in public realm, place activation and enabling smart cities infrastructure
- The creative industries are an essential building block for the relative strength of a place’s liveability and visitor economy. Growing the creative industries sector gives people another reason to come and stay and supports a place that is nicer to live and stay.
- Opportunity to grow industry in line with other places in NSW – liveability and lifestyle offering is strong and investment in public spaces, policy, events, cohesive promotion/marketing campaigns relies on cultural industries.

⁹³ Create NSW (2019) *NSW Cultural Infrastructure Plan 2035*, pp. 88-89.

⁹⁴ Regional Australia Institute (2018), ‘Whose town is the most creative? Hot spots of creativity in regional Australia’. <http://www.regionalaustralia.org.au/home/whose-town-creative-hot-spots-creativity-regional-australia/>

⁹⁵ DPIE (2018) *Greater Newcastle Metropolitan Plan 2036*, p. 26



Closing remarks

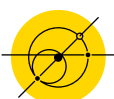
This report has had regard to the industry sectors that should be prioritised and incorporated into the Hunter's regional brand – with a bias towards non-population serving sectors where organic growth will occur without intervention.

When considering a regional branding narrative, comparative economic advantage must reflect what is happening within the region and how that compares to other regions.

Areas of comparative advantage to elevate include:

- Comparative advantage in **defence and aerospace** is immediately apparent – the RAAF base at Williamtown the nerve centre of Australia's air combat capabilities, supported by a concentration of prime defence contractors, an established value chain, and the announcement of the Williamtown Special Activation Precinct.
- The **energy and resources** story for the Hunter has multiple options – this flexibility in part based on non-resource related advantages (infrastructure, logistics, customers, talent). The Hunter has the platform to help drive the nation's energy transition – already leading the research, testing and trialling of alternative energy sources, including solar, wind, biofuels and hydrogen.
- The **health** sector can lead outcomes for regional NSW – with similar building blocks as Sydney's health and education precincts in a comparatively cheaper and easier location.
- The region has established a compelling reputation for innovation – fostering and supporting the enabling capabilities of **advanced manufacturing** and **creative industries** is central to this narrative, and will support ongoing competitiveness in the **mining** and **agribusiness** sectors.
- The region's **tourism** platform is varied, with the Hunter Valley an internationally revered destination. Newcastle Airport and the Port of Newcastle offer an international and domestic gateway, with their potential for tourism yet to be fully realised.

In addition, the crossover between these industry sectors in the Hunter is a prerequisite for future region-wide success, creating working parties and support for interdisciplinary approaches. The co-location of like industry specialisations will help break down silos between disciplines and encourage people to work together towards common goals.



Appendix A: Methodology

Identifying the Hunter’s industry sector strengths

The Hunter’s industry sector strengths were identified through a horizon scan of relevant Government policy and strategy documents, including regional advocacy documents (Figure A1).

The industry sector strengths identified for the Hunter were also cross-referenced alongside the Federal Government’s Industry Growth Centres – in particular, using the Sector Competitiveness Reports produced by each Industry Growth Centre to assess the level of preparedness for the Hunter to excel in each industry sector.



Figure A1: Guiding policy and strategy framework for the Hunter region



Appendix B: Engagement

Validating through stakeholder engagement

The December 2020 workshop with 60 government and industry stakeholders helped to identify which industry sectors should be prioritised for investment (Figure A2), using the sectors identified in the Hunter RDA's *Smart Specialisation Strategy* as a base.

Live digital polling provided an assessment of the Hunter's relative advantage across the identified sectors, and additional context on strengths and opportunities for the four highest ranked options.

Workshop participants told us – Which four sectors in the Hunter have the most competitive advantage? [pick four]

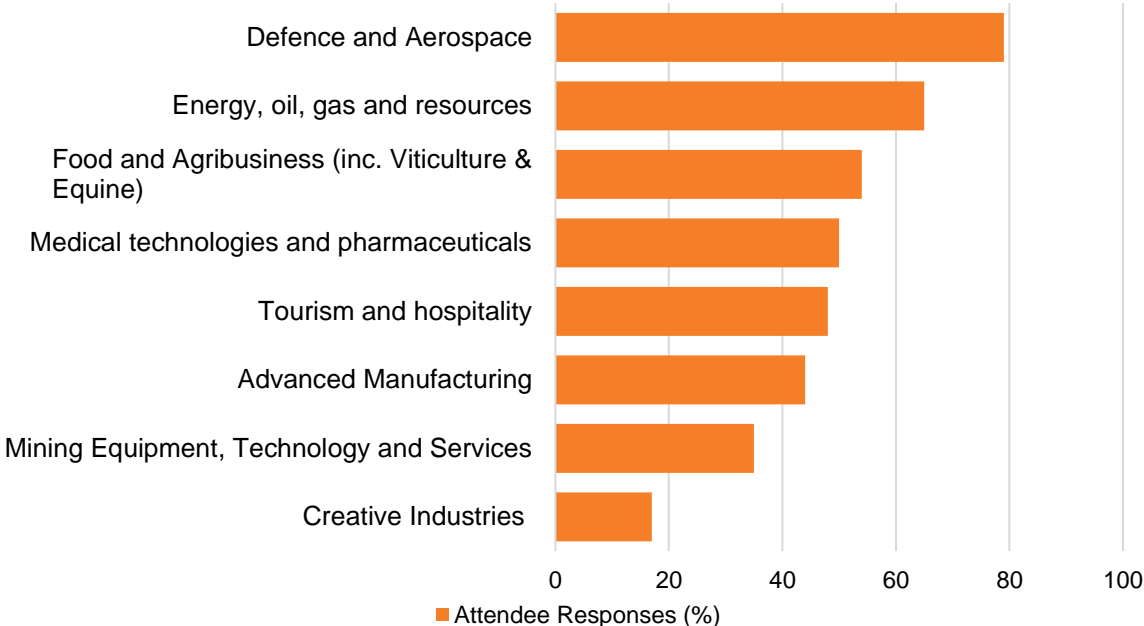
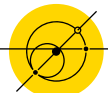


Figure A2. Outcomes of poll question, December 2020

During the development of the paper additional comment and validation was provided by:

- Mining, Advanced Manufacturing: Hunter Business Chamber
- Agribusiness: Regional NSW; Crown Lands, Cordina Chickens
- Defence: Hunter Defence Taskforce/HunterNet
- Health: UON/HMRI; Hunter New England Local Health District
- Energy and Resources: UON/NIER
- Tourism: Hunter Valley Wine and Tourism Association



List of Acronyms

ABS	Australian Bureau of Statistics
DPI	NSW Department of Primary Industries
DPIE	NSW Department of Planning, Industry and Environment
DRNSW	Department of Regional NSW
FER	Functional Economic Region
HCCDC	Hunter and Central Coast Development Corporation
HIPS	Hunter Identity and Positioning Strategy
HMRI	Hunter Medical Research Institute
I2N	Integrated Innovation Network Hubs
METS	Mining Equipment, Technology and Services
NIER	Newcastle Institute for Energy and Resources
NSW	New South Wales
RAAF	Royal Australian Air Force
RDA	Regional Development Australia
REDS	Regional Economic Development Strategy
SAP	Special Activation Precinct
UON	University of Newcastle





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