

Reflecting on a
decade of change

Smart Specialisation
Strategy for the
Hunter Region:

Then and Now Reflection



An Australian Government Initiative



HUNTER



Smart
Specialisation
Strategy:

Then and Now

The Smart Specialisation Strategy for the Hunter Region gave the region a framework for identifying its competitive strengths and considering future opportunities. It helped us strengthen relationships, grounded regional conversations about innovation, and introduced a global methodology to an Australian context.

A decade on, this Then & Now Reflection highlights how key aspects of the region's industrial base and innovation culture have evolved. It offers insight into long-term trends and progress, rather than a new vision for the region or an assessment of its current or future economic position.



An Australian Government Initiative



Regional
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Australia

HUNTER

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Introduction

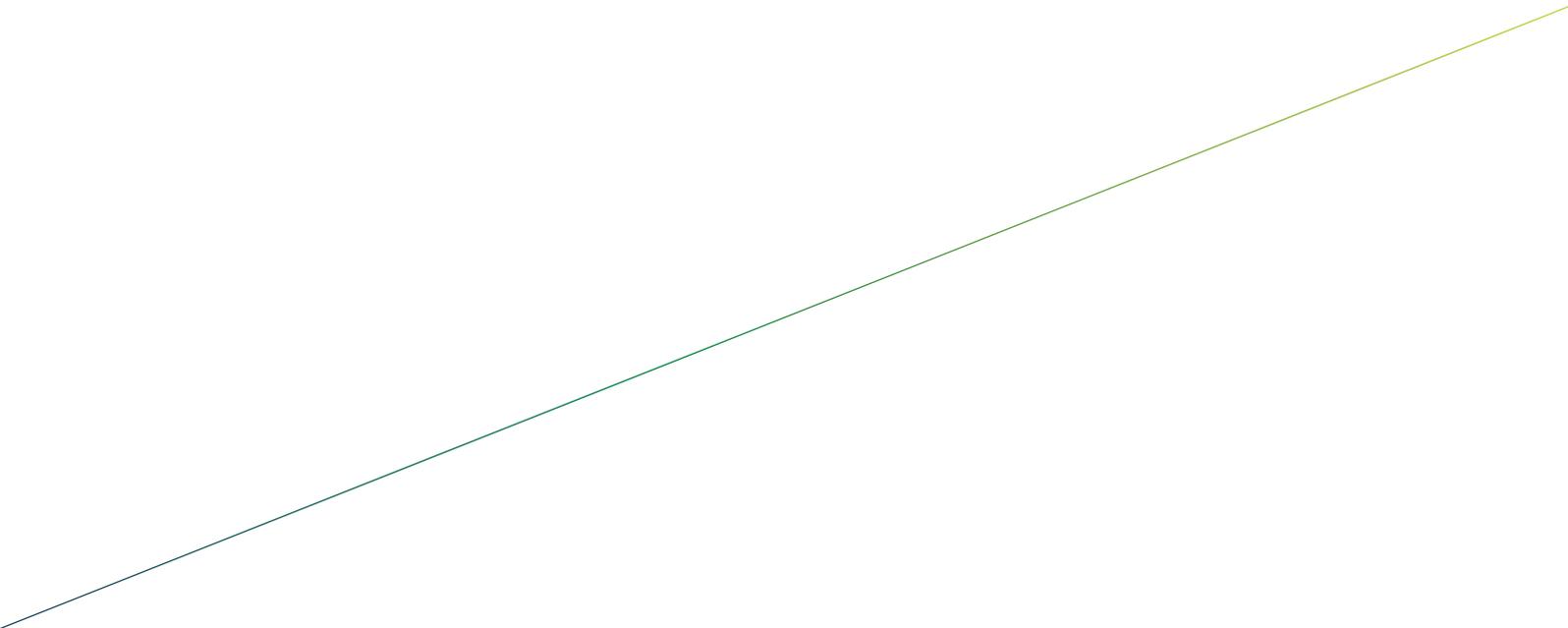
RDA HUNTER'S SMART SPECIALISATION STRATEGY FOR THE HUNTER REGION

Launched in 2016 by Prime Minister of the day, The Hon Malcolm Turnbull, the Smart Specialisation Strategy (S3) for the Hunter Region was an integral part of RDA Hunter's economic development agenda.

Based on the OECD Smart Specialisation framework, which is widely applied across the European Union, the approach focuses on analysing local capabilities and identifying emerging areas of opportunity to guide regional economic transformation. It aims to boost regional innovation, competitiveness, and economic growth by encouraging regions to identify and invest in their unique, comparative strengths.

In the Hunter, the S3 provided a structured method for identifying and promoting the region's smart strengths and the fields with the greatest potential for entrepreneurship and innovation-led growth. The strategy provided guidance on areas of genuine regional advantage to support more targeted and sustainable economic development.

The S3 also offered a broader framework for understanding competitiveness, anticipating future challenges, and encouraging innovation activities that drew on the region's distinctive attributes. It has served as a foundation for discussions about new pathways for economic diversification and resilience.





Kate O'Mara
Chief Executive Officer

RDA HUNTER FOREWORD

When RDA Hunter launched our Smart Specialisation Strategy (S3) in 2016, we did so in a climate of optimism. The forewords that introduced the Strategy clearly reflected this: confidence in the Hunter's assets, belief in our potential for economic transformation, and strong expectations from Australian, European and regional leaders that innovation-led growth could shape the decade ahead.

Those messages acknowledged that our region had internationally connected gateways, established industries, growing knowledge capabilities and the ambition to build a more resilient, high-value economy. They also recognised the broader policy settings of the time – a national innovation agenda, interest from international representatives in sharing regional development methodologies, and a desire among state and federal governments to see regional Australia diversify and thrive.

A decade on, this Then & Now Reflection highlights how key aspects of the region's industrial base and innovation culture have evolved. It offers insight into long-term trends and progress, rather than a new vision for the region or an assessment of its current or future economic position.

The Smart Specialisation Strategy gave the Hunter a framework for identifying its competitive strengths and considering future opportunities. It helped us strengthen relationships with partners here and overseas, grounded regional conversations about innovation, and introduced a global methodology to an Australian context.

These are foundations that continue to matter today as we deepen our regional collaboration and build the intelligence needed to guide informed decision-making.

At the same time, the region's progress over the past decade has been shaped by forces that were not fully visible in 2016 – shifts in energy markets, changing global trade dynamics, a pandemic, new and different workforce pressures, and the accelerating pace of technological transition. The rapid emergence and adoption of artificial intelligence, in particular, is reshaping industries, jobs and skills requirements at a speed few anticipated. These realities influenced what the Strategy was able to achieve, where momentum grew, and where outcomes were harder to deliver. They have also sharpened our focus on economic sustainability and the need to ensure that future prosperity is anchored in homegrown capability and a skilled regional workforce.

Having worked on the Smart Specialisation Strategy from 2014, I return to it now with familiarity and fresh enthusiasm. The experience reinforces for me how important evidence-based, collaborative regional development continues to be. Guided by what we have learned over the past decade, RDA Hunter will remain focused on work that builds on our strengths – strengthening regional collaboration, enhancing economic sustainability, and supporting the development of a skilled workforce – while preparing for the opportunities and challenges ahead.

Recap:

Smart Specialisation Strategy for the Hunter Region

WHY THE SMART SPECIALISATION FRAMEWORK?

RDA Hunter's Smart Specialisation Strategy (S3) set out to strengthen the region's competitiveness by focusing on innovation, investment and infrastructure as drivers of economic development. Building on the Hunter's existing research, industry insights and innovation initiatives, the Strategy applied the OECD smart specialisation framework to identify the region's distinctive strengths and the areas with the greatest potential for knowledge-led growth.

Through extensive consultation, the S3 highlighted seven priority sectors with strong local capability and future opportunity:

- > **Advanced Manufacturing**
- > **Creative Industries**
- > **Defence**
- > **Food and Agribusiness**
- > **Medical Technologies and Pharmaceuticals**
- > **Mining Equipment, Technology and Services (METS)**
- > **Oil, Gas and Energy Resources.**

These sectors were identified as the Hunter's most promising platforms for targeted investment, collaboration and innovation focused activity.

ACTIONS RECOMMENDED IN THE S3

The Smart Specialisation Strategy outlined a set of actions designed to support innovation-driven growth in seven priority sectors in the Hunter.

The Strategy's key actions focused on:



1. Building Inclusive Innovation Leadership

- Establish a Hunter Innovation Network to connect businesses, educators, researchers and entrepreneurs
- Form a representative board and secure ongoing government funding to support its operations



2. Encouraging Entrepreneurship

- Promote entrepreneurship education across schools, TAFE and universities
- Map and make visible the region's entrepreneurship training and support offerings



3. Developing Skills for Innovation

- Create partnerships between industry, education providers and community organisations to deliver integrated skills programs
- Attract specialised training providers from outside the region



4. Strengthening University-Industry Collaboration

- Help businesses identify research collaboration opportunities with the University of Newcastle
- Expand work-based learning pathways for students



5. Establishing an Innovation Investment Fund

- Develop guidelines and stakeholder partnerships for a Hunter Innovation Initiatives Investment Fund



6. Supporting Policy Alignment and Communication

- Promote coordinated policy development across government levels
- Develop a comprehensive communication plan to build awareness and commitment to the S3



Then and Now: The Hunter Innovation Ecosystem

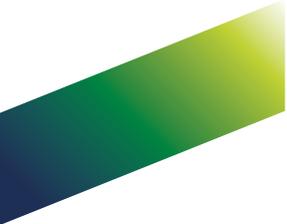
Over the past decade, the Hunter's innovation system has evolved and grown. The region continues to benefit from strong foundations: a world-class university, respected research institutes including the Hunter Medical Research Institute (HMRI) and Newcastle Institute for Energy Resources (NIER), high-quality vocational and school systems, and a diverse industry base. These institutions and industries remain central to generating knowledge, skills and the talent that underpins innovation.

Government involvement across all levels has become more aligned and place-based, with recent regional strategies emphasising coordination, cross-agency policy support, and preparation for a net-zero economy.

The innovation ecosystem itself has become more connected and active. Regional networks now play a stronger role in linking entrepreneurs, researchers, investors, and industry participants, helping position the Hunter as a growing centre of knowledge-based and technology-enabled activity. Collaboration, better investment pathways, and stronger mechanisms for supporting emerging sectors and innovation-driven businesses remain important.

One of the Hunter's greatest assets remains its people. Over the past decade, the region has doubled down on the notion that investment in human capability is the foundation of innovation-driven growth. The region's education and training ecosystem, anchored by a world-class university and strong vocational and school systems, continues to supply the skilled workforce needed for an economy shifting toward cleaner industries, advanced technologies, and knowledge-intensive jobs.

Targeted initiatives aimed at building entrepreneurial capability and supporting emerging skills have strengthened the workforce pipeline, helping the region secure new opportunities and industry transitions. A focus on collaboration, innovation culture, and talent development continues – helping position us for knowledge-led industry growth.



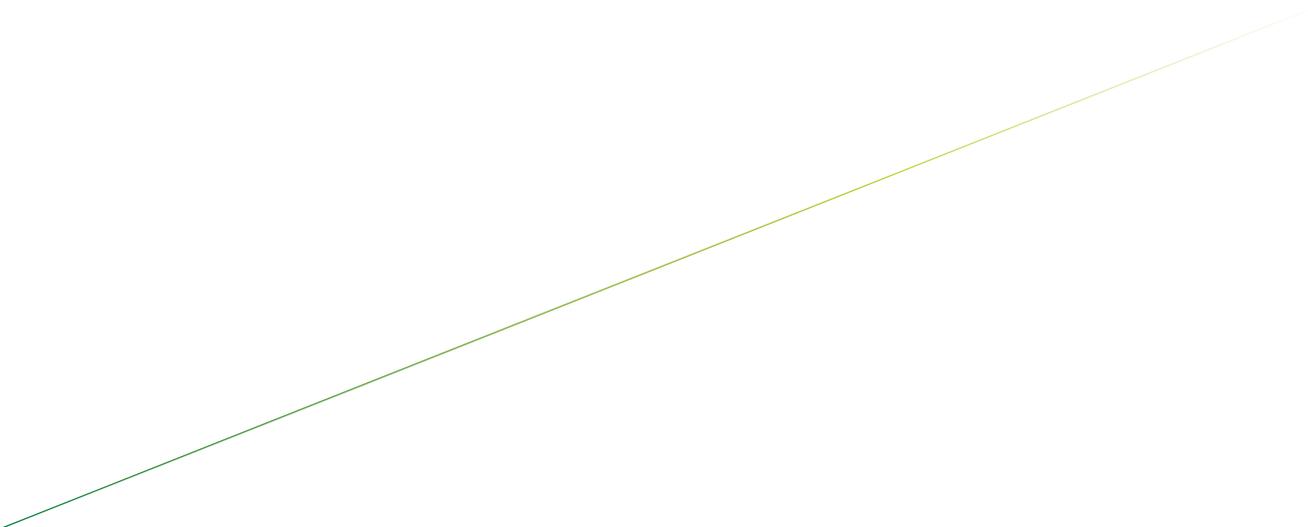
How did we go: Smart Specialisation Framework

While the Smart Specialisation Strategy provided a clear framework for coordinated regional action, since the Strategy launch in 2016 RDA Hunter has not been resourced or able to attract resources to a level that allowed it to fully implement the governance, facilitation and network-building roles envisioned in the plan.

Establishing structures such as the proposed Hunter Innovation Network, a regional innovation investment fund, or a dedicated collaboration brokerage service would have required sustained investment and staffing that continue to be beyond our operational capacity.

Despite this, the past decade has seen significant progress across many of the areas the S3 identified as important for the region's future. Rather than emerging through a single co-ordinated structure, however, innovation and sector growth have unfolded through a variety of organisations, precincts and industry-led initiatives. Defence, health innovation and clean energy for example have developed through the collaborative efforts of industry & local businesses, governments, regional organisations, the University of Newcastle, TAFE NSW, industry groups and accelerators. Our Health & Medtech Industry Cluster is a practical, effective example of Smart Specialisation theory in practice.

In many ways, the ecosystem has evolved in line with the goals of the S3 but in a more distributed and organic way. This fragmented progress highlights the enduring relevance of the Strategy's recommendations, the resilience of the region's innovation community and the continuing opportunity for stronger alignment in the future.



Then and Now:

A comparison of the
sectors identified in
our S3



SECTOR/CATEGORY	2016 – THEN	2026 – NOW
ADVANCED MANUFACTURING		
Industry Structure & Role	<ul style="list-style-type: none"> • Sector viewed as a discrete manufacturing domain. • Focus on integration into increasingly digital global supply chains. 	<ul style="list-style-type: none"> • Now recognised as a foundational, horizontal capability across defence, aerospace, mining technology, energy, chemical processing and construction. • Enables productivity, export growth and technology adoption across the entire regional industry base. • Approx. 2,000 businesses employing ~20,000 people; ~\$2B contribution to the NSW economy. • Growth linked to product development strengths and activity in defence, aerospace, mining services and energy.
Technology & Innovation	<ul style="list-style-type: none"> • Adoption of advanced technologies incl. 3D printing, new materials and embedded tech design. • Strong push for research–industry engagement and commercialisation. • Regulatory reform highlighted to improve competitiveness. 	<ul style="list-style-type: none"> • New actors and facilities help startups/scaleups prototype, test and commercialise complex physical products (expertise, facilities and, in some cases, investment). • Significantly strengthened device-based innovation and early-stage commercialisation capacity. • Priorities align nationally: access to global supply chains, research–industry collaboration, and firm-level digital capabilities.
Skills, Workforce & Capability	<ul style="list-style-type: none"> • Emphasis on managerial capability and workforce skills uplift. • Aligned with AMGC vision that all manufacturers can become ‘advanced’ 	<ul style="list-style-type: none"> • Ongoing uplift in management, technical and digital capabilities across firms. • Positions the region to contribute to sovereign capability, decarbonisation technologies and high-value exports; well placed for emerging national policy settings.

Then and Now:**A comparison of the sectors identified in our S3**
(continued)

SECTOR/CATEGORY	2016 – THEN	2026 – NOW
CREATIVE INDUSTRIES		
Industry Structure & Role	<ul style="list-style-type: none"> • Newcastle recognised as a creative industries 'hot spot'. • High proportion of freelancers and microbusinesses. 	<ul style="list-style-type: none"> • Now a maturing creative industries hub with expanding capability and improved visibility. • Stronger links between culture, technology, innovation and urban development. • Contributes to urban renewal, placemaking and economic diversification; drives regional vibrancy.
Technology & Innovation	<ul style="list-style-type: none"> • Software development identified as a significant cross-sector enabler. • Growth opportunities linked to broadband (NBN) rollout. 	<ul style="list-style-type: none"> • Diversified beyond arts/freelancers to digital media, design, gaming, screen production, architecture, software and immersive technology. • Creative capability underpins innovation across advanced manufacturing, defence simulation, energy, health innovation and mining technology.
Skills, Workforce & Capability	<ul style="list-style-type: none"> • Challenges around global market access, pricing, contracting and business capability. • Engagement via networks such as Hunter Arts Network. 	<ul style="list-style-type: none"> • Transitioned from primarily cultural/community orientation to a strategic economic asset integral to identity, growth and diversification. • Reinforces the Hunter's position as an innovative, future-focused region with strong creative and technological capability.

SECTOR/CATEGORY	2016 – THEN	2026 – NOW
DEFENCE		
Industry Structure & Role	<ul style="list-style-type: none"> • Anchored by RAAF Base Williamtown (future home of the F-35 JSF fleet). • Presence of Singleton Military Area and Myambat ammunition depot. 	<ul style="list-style-type: none"> • The Hunter is one of Australia’s most strategically significant defence hubs, with major bases and world-class aerospace facilities. • Williamtown has expanded its national significance as home of the F-35A fleet; the region is a national centre for defence support, supply and sustainment across aerospace, land, maritime, space and cyber. • Astra Aerolab provides substantial infrastructure to attract primes, support advanced manufacturing and enhance regional R&D capacity. • Singleton Military Area and Myambat depot continue critical roles, reinforcing strategic importance. • >100 companies represented via Hunter Defence, providing coordination, supplier development and advocacy; positioning SMEs for national and international opportunities (sustainment, components, digital integration, systems).
Technology & Innovation	<ul style="list-style-type: none"> • Strong MRO (maintenance, repair and overhaul) capability. • Major primes present: BAE Systems, Lockheed Martin, Raytheon. 	<ul style="list-style-type: none"> • Advanced manufacturing platforms and startups contribute to defence capability across simulation, prototyping and systems integration.
Skills, Workforce & Capability	<ul style="list-style-type: none"> • Strong skills pipeline via TAFE NSW. 	<ul style="list-style-type: none"> • Mature pipeline via TAFE NSW, University of Newcastle, RTOs and industry pathways covering trades, aerospace engineering, digital tech, advanced manufacturing and cyber. • Collaboration across Defence, industry, education and innovation precincts underpins sovereign capability, national security and industrial resilience.

Then and Now:**A comparison of the sectors identified in our S3
(continued)**

SECTOR/CATEGORY	2016 – THEN	2026 – NOW
FOOD & AGRI-BUSINESS		
Industry Structure & Role	<ul style="list-style-type: none"> • Strengths in wine, beef and grains. • Engagement with Food Innovation Australia Limited (FIAL). 	<ul style="list-style-type: none"> • Evolved into a sophisticated, technology-enabled and globally competitive sector. • Still globally recognised for premium wine, high-quality beef and grains, and thoroughbred breeding, but now plays a wider role across agrifood value chains shaped by sustainability, provenance, advanced processing and digital transformation. • Diversified to a nationally important agribusiness hub spanning dairy, poultry, horticulture, aquaculture and advanced food manufacturing. • Positioned as a future-focused agricultural powerhouse contributing to national food security and regional resilience, supported by strong logistics corridors and a major port.
Technology & Innovation	<ul style="list-style-type: none"> • Emphasis on collaboration across the value chain. 	<ul style="list-style-type: none"> • Producers/processors adopting automation, climate-smart farming, low-emissions technologies and data-enabled production. • Agritech and traceability capabilities support access to premium domestic and export markets.
Skills, Workforce & Capability	<ul style="list-style-type: none"> • Viticulture training strength through TAFE. • Need for businesses to connect into wider networks to remain competitive. 	<ul style="list-style-type: none"> • Skills and training expanded: TAFE NSW leads viticulture/agribusiness; UoN and research organisations drive sustainability, regenerative practices and food system transformation. • Tocal College strengthened as a leading agritech centre delivering practical, industry-focused training (modern systems, biosecurity, livestock, dairying, land stewardship). • New investments incl. a state-of-the-art dairy (robotics and advanced systems) give students hands-on experience with next-gen technology and sustainable methods.

SECTOR/CATEGORY	2016 – THEN	2026 – NOW
MEDTECH & PHARMA		
Industry Structure & Role	<ul style="list-style-type: none"> • International equine excellence at Scone Equine Hospital. • Veterinary pharmaceutical strength via Jurox. 	<ul style="list-style-type: none"> • Significantly expanded health, medical and biotechnology sector built on internationally recognised research capabilities and growing commercial/clinical innovation. • Region increasingly recognised as a centre for health technology innovation, clinical translation and clinical trials.
Technology & Innovation	<ul style="list-style-type: none"> • Translational research strengths across brain health, cancer, cardiovascular and public health. • Leadership through Hunter Medical Research Institute (HMRI). 	<ul style="list-style-type: none"> • Continued strength in translational research across brain/mental health, cancer, cardiovascular, reproductive health, public health, infectious diseases and immunology — anchored by HMRI. • HMRI strengthened partnerships with industry and clinicians and, with Hunter New England Health and UoN, is accelerating commercialisation and digital health solutions. • \$835M John Hunter Health & Innovation Precinct delivers a new acute services building and integrates clinical services with HMRI via link bridges, creating a seamless environment for innovation, training, trials and rapid adoption of new technologies and models of care.
Skills, Workforce & Capability	<ul style="list-style-type: none"> • Strong commercialisation potential identified. 	<ul style="list-style-type: none"> • Impact: expanded specialist services, enhanced patient outcomes, purpose-built education spaces integrated into the hospital environment. • RDA Hunter’s Health & Medtech Industry Cluster (HMIC, established 2020) grows the medtech ecosystem, strengthens partnerships, supports commercialisation and raises the Hunter’s national profile.

Then and Now:**A comparison of the sectors identified in our S3
(continued)**

SECTOR/CATEGORY	2016 – THEN	2026 – NOW
METS (MINING EQUIPMENT, TECHNOLOGY & SERVICES)		
Industry Structure & Role	<ul style="list-style-type: none"> • Knowledge-intensive mining innovation trajectory; leadership through NIER. • Strong PhD pipeline and industry-funded research. 	<ul style="list-style-type: none"> • Hunter remains one of Australia’s most significant METS centres, with deep capability built over decades of mining, energy and engineering expertise. • Sector now characterised by information-driven innovation, sustainability imperatives and global market integration.
Technology & Innovation	<ul style="list-style-type: none"> • Strong IT-led innovation focus. • Engagement with METS Ignited. 	<ul style="list-style-type: none"> • Substantial evolution since 2016 driven by digital transformation and energy transition. • Rapid uptake of automation, robotics, data analytics and smart systems across mining and resources. • NIER expanding research and skills infrastructure to support rapid technology development, energy-critical skills and industry collaboration; strengthening its role as a national hub for METS innovation.
Skills, Workforce & Capability	<ul style="list-style-type: none"> • Industry-research pipeline supporting capability growth. 	<ul style="list-style-type: none"> • Companies increasingly export technologies and engineering solutions internationally, leveraging Asia-Pacific demand for automation/robotics/ data-driven solutions. • METS capabilities increasingly flow into adjacent sectors — clean energy, recycling, advanced manufacturing and infrastructure — positioning METS as a cross-sector enabler.

SECTOR/CATEGORY	2016 – THEN	2026 – NOW
OIL, GAS & ENERGY RESOURCES		
Industry Structure & Role	<ul style="list-style-type: none"> • Research leadership through NIER. • Hosting of the CSIRO Energy Centre. 	<ul style="list-style-type: none"> • The Hunter has undergone one of Australia's most significant energy transitions — from coal/gas assets to an emerging national hub for renewables, clean technology and energy innovation. • NIER central to this evolution, expanding multidisciplinary programs for decarbonisation, electrification, advanced energy systems and industrial transformation.
Technology & Innovation	<ul style="list-style-type: none"> • Smart energy networks, storage and EV integration emerging. • Gradual shift anticipated from traditional to renewable sources. • NSW Energy Innovation Knowledge Hub driving SME opportunity. 	<ul style="list-style-type: none"> • Hunter–Central Coast Renewable Energy Zone (REZ): first in Australia to upgrade existing distribution poles and wires to increase capacity and minimise environmental impact; enables renewable generation, grid modernisation and energy infrastructure; connects new solar, wind, storage and industrial electrification projects; critical to NSW net-zero targets. • CSIRO Energy Centre and NIER programs support grid integration, energy storage, automation and electrification of industrial processes. • Region-wide projects advancing clean energy: Hunter Hydrogen Hub (Kooragang Island), Hunter Energy Hub (Upper Hunter) and Port of Newcastle Clean Energy Precinct (production, storage and export hub for clean-energy products and technologies).
Skills, Workforce & Capability	<ul style="list-style-type: none"> • Early capability and networks forming around energy innovation. 	<ul style="list-style-type: none"> • The Hunter's industrial infrastructure, deep-water port capacity, high-voltage transmission assets and skilled workforce position it as a future-facing energy ecosystem supporting Australia's transition to clean, smart and resilient energy systems.

Then and Now:

Leadership,
Entrepreneurship
and Skills



Leadership

LEADERSHIP: 2016 RECAP

- Move from informal collaboration to a structured regional innovation ecosystem
- Encourage inclusive, cross-sector leadership
- Strengthen pathways between research, industry and commercialisation
- Ensure regional alignment with national innovation policy
- Establish a formally constituted Hunter Innovation Network
- Align with the Commonwealth's National Innovation and Science Agenda

LEADERSHIP: 2026

Although a formally constituted Hunter Innovation Network was not established, the region has nonetheless developed a more mature model of inclusive leadership. Collaboration across industry, government and research institutions continues but it operates through distributed, sector-led networks rather than a single umbrella body. Defence, energy transition, advanced manufacturing and health research partnerships now convene around opportunities for sector growth.

Inclusive leadership in 2026 is less about promoting innovation as a standalone concept and more about supporting economic transition through strong alignment and shared vision. Collaboration is more embedded and operational, with the region's institutions, representative groups, industry peak bodies and governments increasingly active in convening industry to help inform strategy and shape regional priorities.

The experience of the past decade demonstrates that while a formal innovation network can provide visibility and coordination, inclusive leadership can also evolve naturally. The Hunter's challenge is to better promote and scale our innovation capability - strengthening shared regional narratives, improving investor pathways and ensuring inclusive participation will help.

Entrepreneurship

ENTREPRENEURSHIP: 2016 RECAP

- Entrepreneurship defined as recognising opportunity
- Focus on turning innovation into viable businesses
- Emphasis on execution, delivery and opportunity exploitation
- Recognition that risk is inherent but can be mitigated through skills development
- Importance of education and training in entrepreneurship

ENTREPRENEURSHIP: 2026

Entrepreneurship in the Hunter has moved on from a primarily education-driven agenda to a broader ecosystem conversation. Rather than focusing solely on new venture creation, the region continues to recognise entrepreneurship as both new business formation and innovation within existing firms - particularly small and medium enterprises adapting to pressures like digitalisation and decarbonisation.

Digital literacy, once identified as an emerging requirement, is now foundational. The widespread adoption of cloud platforms, automation tools, artificial intelligence and e-commerce systems means that entrepreneurial capability is inseparable from digital competence.

Design thinking, lean startup methodologies and agile project management approaches are increasingly embedded not only in business programs but across engineering, health, science and creative disciplines. Entrepreneurial education has become more interdisciplinary, reflecting the reality that innovation occurs at the intersection of fields. This is reflected in the University of Newcastle discontinuing its Bachelor of Innovation and Entrepreneurship from 2025 and integrating innovation and entrepreneurship content across multiple degree programs.

However, the past decade has also revealed structural constraints. Access to early-stage capital and scale-up pathways remains more limited than in our capital cities. Hunter entrepreneurs build strong enterprises based on sound innovation but continue to consider relocation when seeking rapid growth capital. In response, the region has seen incremental strengthening of mentoring networks, angel investment activity and university-industry collaboration, though these remain areas for further development.

Skills

SKILLS FOR INNOVATION: 2016 RECAP

- Recognition that smart businesses require smart people
- Technical and scientific capability identified as critical to innovation
- Growing awareness that innovation also depends on business acumen, systems thinking and cultural understanding
- Emphasis on interaction between technical and non-technical capabilities
- Reference to the World Economic Forum's The Future of Jobs (2016)
- Recognition that practical, transferable skills underpin productivity across all industries

FUTURE OF JOBS: PRIORITY SKILLS COMPARISON (2016 > 2026)

WORLD ECONOMIC FORUM 2016 TOP SKILLS	WORLD ECONOMIC FORUM 2025 PRIORITY / RISING SKILLS
Complex Problem-Solving	Analytical Thinking (top skill)
Critical Thinking	Creative Thinking (major rise)
Creativity	AI & Big Data Skills (fastest-growing)
People Management	Technological Literacy (core tech skill)
Coordinating With Others	Resilience, Flexibility & Agility (top rising)
Emotional Intelligence	Curiosity & Lifelong Learning (self-efficacy skill)
Judgement & Decision-Making	Leadership & Social Influence (growing importance)
Service Orientation	Environmental Stewardship (now a top 10 fastest-growing skill)
Negotiation	Cybersecurity / Networks Security (emerging skill)
Cognitive Flexibility	Design & User Experience (UX) (emerging)

*World Economic Forum skills data published in 2025.

Skills in decline

These were considered basic skills in 2016 but are now declining in importance:

- Manual dexterity, endurance, precision
- Reading, writing, mathematics
- Sensory-processing abilities.

Skills

WHAT THE WORLD ECONOMIC FORUM SKILLS DATA COMPARISON SHOWS

Cognitive skills have evolved

2016 emphasised:

- Problem solving
- Critical thinking
- Creativity.

2025 data shifts these into higher-order forms:

- Analytical thinking
- Creative thinking
- Complex problem-solving (still present but redistributed into cognitive clusters).

Technology rises from supporting role to a central priority

2016 had no dedicated category for technology skills.

2025 data introduces:

- AI & big data
- Technological literacy
- Cybersecurity.

These are now among the fastest-growing skills globally.

Human-centric skills deepen

2016 social/emotional skills included people management, emotional intelligence.

2025 data moves further into:

- Leadership & social influence
- Resilience & adaptability
- Lifelong learning
- Empathy & active listening (steady).

Green & sustainability skills appear for the first time

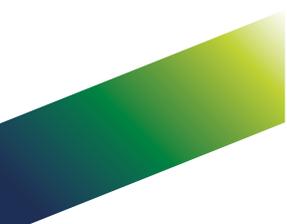
There were no green-transition skills in 2016.

2025 data introduces:

- Environmental stewardship (top 10 fastest-growing)
- Sustainability-related competencies.

AI & Big Data
Skills is one of the
fastest-growing
sectors





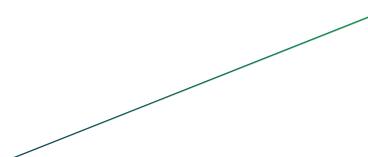
Reflection on Collaboration, Investment and Policy Coordination

Over the past decade, the Hunter has continued to strengthen the links between research, business and regional development. The University of Newcastle and other tertiary institutions have maintained a vital role in generating knowledge and supporting workforce capability, while also expanding practical engagement with local businesses. However challenges remain in embedding research-industry partnerships within SMEs - highlighting the importance of aligning research with practical business needs.

Access to funding for innovation and new business development has improved but remains a constraint for many enterprises. A broader and more flexible investment framework, such as the Hunter Innovation Initiatives Investment Fund proposed in our S3, remains an opportunity that would support diverse entrepreneurial activity. By combining financial assistance with mentoring, skills development and collaborative opportunities, such a fund could strengthen both individual ventures and the wider innovation ecosystem.

The past decade has also underscored the importance of coordinated policy and program engagement. Regional economic development won't be achieved by local initiatives alone, state and national policy frameworks, and targeted investment are required. Various regional organisations have taken leadership in this space - providing evidence, connecting partners, and advocating for funding and policy programs aligned with our regional priorities, but sustained focus is needed.

Looking forward, these three areas remain priorities for the region. The Hunter's innovation ecosystem is stronger and more resilient than it was in 2016, but opportunities remain to deepen engagement, broaden participation, and better leverage public and private resources.



International Innovation Systems: Are there additional learnings we can draw?

Developments in international innovation systems like Smart Specialisation continue to offer experience on how to refine place-based innovation policy, strengthen regional governance, and embed collaboration more deeply.

Strengthened Governance as an Enabler

- Analysis of innovation challenges
- Monitoring and evaluation tools
- A functioning entrepreneurial discovery process (EDP)
- Support for industrial transition
- Cross-border collaboration measures

Deepened Entrepreneurial Discovery Processes (EDP)

- Continuous stakeholder cooperation
- Systematic involvement of the quadruple helix
- Using EDP to adjust priorities over time, not just set them

Stronger Monitoring & Evaluation

- Evaluation frameworks to measure sectoral strengths, talent development, innovation outputs, and investment flows

Interregional Collaboration

- Interregional collaboration to build complementary capability
- Cross-border innovation networks

Innovation Governance

- More complex innovation governance models
- Regional coordination bodies

Internationalisation

- Developing cross-border collaborations with regions possessing complementary technological strengths

Conclusion

Over the last decade, the Hunter has demonstrated how collaboration can underpin regional resilience. In 2016, RDA Hunter emphasised the need for stronger links between industry, education, research and government. That principle remains just as relevant in 2026, as the region continues to navigate structural change and the need to diversify its economic foundations.

The sectors identified a decade ago have evolved in significant ways. Some shifts, such as the decline of coal-fired power generation and the expansion of defence capability, were anticipated; others, particularly the growth of clean energy, digital technologies and medical research, have accelerated more quickly than expected. The rise of artificial intelligence and its impact on jobs, business models and skill requirements have been especially rapid, reshaping industries at a speed few foresaw. These transitions have been shaped by sustained effort across many organisations and institutions, each contributing to the region's capacity to adapt.

Looking ahead, the scale and pace of change will require shared effort rather than direction from any single body. RDA Hunter's role remains to support alignment where possible, contribute evidence and analysis, and ensure the region's perspectives are represented in broader policy and investment

discussions. Our work today reflects this: deepening regional collaboration and intelligence gathering, supporting the long-term sustainability of the Hunter economy, and contributing to pathways development for a skilled, homegrown workforce capable of meeting emerging industry demand.

The Hunter's future will continue to draw on the sectors identified in 2016 - sectors that have shown resilience, generated research partnerships, adopted new technologies and fostered specialised capabilities that underpin innovation-led growth. As the region continues to diversify, new opportunities will emerge in areas where fast-moving global trends align with the Hunter's established capabilities. RDA Hunter will continue to contribute to the kind of place-based analysis, collaboration and industry engagement - informed by smart specialisation principles and methodology - that ensures these opportunities are recognised early and supported effectively.

In preparing this Then & Now Reflection it's clear that the Hunter advances when decisions are grounded in evidence, when investment is aligned with local strengths, and when the region works together with purpose. The Board of RDA Hunter is committed to ensuring the region continues to benefit from these principles. We will maintain our focus on generating strong economic intelligence, supporting industry development and innovation, and strengthening the social and economic infrastructure that enables communities and businesses to thrive. By advancing a skilled, homegrown workforce and continuing to apply proven place-based methodologies like Smart Specialisation, we will help ensure the Hunter is equipped to capitalise on the new opportunities shaping the decade ahead.



We will maintain our focus on generating strong economic intelligence, supporting industry development and innovation, and strengthening the social and economic infrastructure that enables communities and businesses to thrive.

Knowledge, Business, and Education Attainment Indicators in the Hunter, Sydney and NSW

	HUNTER			SYDNEY			TOTAL NSW/ACT		
	2016	2026	Percentage Change (%)	2016	2026	Percentage Change (%)	2016	2026	Percentage Change (%)
Population (2024)	614,737	711,909	15.81	4,127,229	5,202,000	26.04	7,333,896	8,953,000	22.08

Innovation indicators									
Patent applications (2024)	34	49	44.12	253	519	105.14	387	704	81.91
Patent applications per 10,000 inhabitants	0.55	0.69	24.45	0.61	1.00	62.76	0.53	0.79	49.01
Trade Marks applications (2024)	641	1,384	115.91	8,088	18,706	131.28	11,127	25,762	131.53
Trade Marks applications per 10,000 inhabitants	10	19	86.44	20	36	83.50	15	29	89.66

Business activity indicators									
Business Counts: Number of Employing Businesses (2025)	19,138	23,436	22.46	200,077	238,208	19.06	315,825	371,436	17.61
Business Counts: Number of Employing Businesses per 10,000 inhabitants	311	329	5.74	485	458	-5.54	431	415	-3.66
New business entries (total)	5,508	8,560	55.41	67,845	111,729	64.68	99,852	155,751	55.98
New business entries (total) per 10,000 inhabitants	89.60	120.24	34.20	164.38	214.78	30.66	136.15	173.97	27.77
Business Research and Development Expenditure (\$m)	79.3	-	-	2754.0	-	-	5,710.70	9,630.40	68.64

Education attainment									
Postgraduate Degree Level	10,372	24,000	131.39	194,575	428,000	119.97	264,199	590,000	123.32
Graduate Diploma and Graduate Certificate Level	5,851	12,000	105.09	53,419	97,000	81.58	93,649	173,000	84.73
Bachelor Degree Level	48,320	79,000	63.49	579,471	974,000	68.08	847,877	1,425,000	68.07
Advanced Diploma and Diploma Level	36,454	56,000	53.62	298,928	437,000	46.19	487,468	740,000	51.80
Certificate Level	115,436	138,000	19.55	479,806	508,000	5.88	1,023,911	1,178,000	15.05
Total Tertiary	216,433	309,000	42.77	1,606,199	2,444,000	52.16	2,717,104	4,106,000	51.12
Total Tertiary per 10,000 inhabitants	3,521	4,340	23.28	3,892	4,698	20.72	3,705	4,586	23.79
Years 10 and above	173,808	186,000	7.01	1,863,743	1,220,000	-34.54	2,845,543	2,228,000	-21.7
Total School-level per 10,000 inhabitants	2,827	2,613	-7.59	4,516	2,345	-48.06	3,880	2,489	-35.86

*Specific data items have changed since 2016

	HUNTER			SYDNEY			TOTAL NSW/ACT		
	2016	2026	Percentage Change (%)	2016	2026	Percentage Change (%)	2016	2026	Percentage Change (%)
Counts of businesses									
Accommodation and Food Services	1,942	2,371	22.09	17,028	24,309	42.76	30,295	39,490	30.35
Administrative and Support Services	1,182	2,375	100.93	15,438	29,694	92.34	31,212	43,326	38.81
Agriculture, Forestry and Fishing	1,139	3,529	209.83	12,249	4,690	-61.71	29,793	53,672	80.15
Arts and Recreation Services	3,455	937	-72.88	8,513	8,959	5.24	23,502	13,831	-41.15
Construction	2,682	10,035	274.16	10,976	98,870	800.78	25,881	160,178	518.90
Education and Training	1,689	874	-48.25	7,942	11,069	39.37	22,294	15,958	-28.42
Electricity, Gas, Water and Waste Services	1,785	131	-92.66	12,883	1,815	-85.91	31,083	2,958	-90.48
Financial and Insurance Services	2,914	1,927	-33.87	14,977	41,834	179.32	29,687	51,332	72.91
Health Care and Social Assistance	1,378	5,030	265.02	10,060	44,725	344.58	23,128	69,272	199.52
Information Media and Telecommunications	1,764	317	-82.03	19,247	8,143	-57.69	32,454	10,542	-67.52
Manufacturing	1,888	2,004	6.14	12,946	18,490	42.82	26,555	29,584	11.41
Mining	2,892	226	-92.19	13,380	771	-94.24	38,584	1,663	-95.69
Professional, Scientific and Technical Services	762	6,333	731.10	14,718	97,915	565.27	35,384	133,331	276.81
Public Administration and Safety	976	136	-86.07	13,748	2,130	-84.51	31,418	2,988	-90.49
Rental, Hiring and Real Estate Services	3,291	5,412	64.45	9,854	75,233	663.48	25,539	104,994	311.11
Retail Trade	2,425	2,990	23.30	12,815	35,195	174.64	24,283	53,075	118.57
Transport, Postal and Warehousing	5,746	3,236	-43.68	25,609	56,229	119.57	55,749	74,844	34.25
Wholesale Trade	4,819	1,183	-75.45	9,562	22,967	140.19	27,502	30,269	10.06
Total businesses	42,729	49,046	14.78	241,945	583,038	140.98	544,343	891,307	63.74
Total businesses per 10,000 inhabitants	695	689	-0.88	586	1,121	91.19	742	996	34.13

Count of University Campuses	2	4	100.00	35	35	0.00	68	56	-17.65
Count of TAFEs	13	10	-23.08	41	41	0.00	150	157	4.67

Sources:

Australian Bureau of Statistics

Data AU

Universities Review Australia

AusStudies

TAFE NSW

University of Newcastle

It's clear that the Hunter advances when decisions are grounded in evidence, when investment is aligned with local strengths, and when the region works together with purpose. The Board of RDA Hunter is committed to ensuring the region continues to benefit from these principles.

DISCLAIMER

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