Defence Industry Leadership Program

DILP Research Paper

Demonstrating Value on Par With our AUKUS Partners: Rethinking Innovation for SMEs

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Defence Industry Leadership Program (DILP) Research Paper

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DISCLAIMER & ACKNOWLEDGEMENT

DISCLAIMER

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While every effort has been made to ensure accuracy, the authors accept no liability for any errors, omissions, or outcomes resulting from the use of this document.

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EXECUTIVE SUMMARY

Australia's defence sector finds itself at a strategic tipping point. The current geopolitical landscape is volatile and there is legitimate cause for developing both scale and technological maturity of the Australian defence sector to achieve the objectives of the National Defence Strategy. When compared with international allies and potential adversaries, Australia's defence sector is necessarily modest by influence of population and GDP, thereby benefitting asymmetrically from any technological superiorities achieved and sustained. SMEs are responsible for most of Australia's national technological innovation and yet available funding is minimal, existing policy fails to support SMEs to remain financially competitive, and the accessible guidance to ensure our limited resources are applied intelligently to the right innovations is lacking. This imbalance threatens sovereign capability and is currently limiting Australia's ability to keep pace with AUKUS partners.

This paper outlines several specific challenges faced by Australian SMEs including, current procurement systems, compliance costs, and cultural bias toward large primes creating systemic barriers for SMEs. These challenges force many Australian SMEs to rely heavily on export markets, weakening Australia's industrial resilience at a time of increasing instability in the Indo-Pacific region.

Ultimately, this paper seeks to address the question – *How can Australia best support SMEs to produce the technologies and innovations required to demonstrate value on par with our AUKUS partners?*

To address this, the paper draws on comparative policy analysis, stakeholder interviews, and case studies from both Australia and abroad. The recommendations provided in this paper outline a coordinated strategy to create an environment that fosters domestic innovation. Specifically, Australia should:

1. Establish a Sovereign Capability Ministry for top-down governance,
2. Introduce AUKUS Visas to accelerate skills transfer,
3. Pivot policy to scale medium sized businesses into sovereign primes, and
4. Mandate Australian SMEs into Defence contracts to guarantee industry collaboration and reduce barriers to innovation.

Implementing these reforms will unlock SME agility, strengthen sovereign capability, and position Australia as a technology creator rather than a consumer. This approach will ensure Australia's resilience, competitiveness, and strategic advantage within the AUKUS framework, securing Australia's defence future.

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1 INTRODUCTION

Australia's defence innovation landscape is defined by a stark asymmetry: a handful of large multinational Primes and thousands of small businesses, with few medium sized enterprises bridging the gap. This imbalance has significant implications for capability development, supply chain resilience, and sovereign industrial power.

In the context of AUKUS and growing strategic uncertainty in the Indo-Pacific, the need to harness the agility and ingenuity of SMEs has never been greater. While SMEs drive the majority of innovation in Australia, they receive only a small fraction of direct Government Defence spending. Intent of previous government policies to support SMEs through an export focussed industrial strategy have not been realised forcing inherent disadvantage for Australian SMEs to stay competitive and economically viable. This disconnect threatens to hollow out the innovation pipeline and weaken Australia's ability to respond to emerging threats.

This concept paper, developed by a cross-sector team of industry professionals, researchers, and Defence stakeholders, seeks to answer a central question – *How can Australia best support SMEs to produce the technologies and innovations required to demonstrate value on par with our AUKUS partners?*

To address this, the paper draws on comparative policy analysis, stakeholder interviews, and case studies from both Australia and abroad. It identifies the barriers SMEs face, from procurement complexity and accreditation costs to cultural bias and export dependency and proposes a roadmap for reform that is fit for purpose with contemporary technologies and the current geopolitical context. The findings presented here are not just theoretical; they reflect the lived experience of SMEs and the strategic urgency of Australia's defence future.

2 PROBLEM STATEMENT

2.1 Research Topic (Updated)

The research topic for DILP Team 6 and this paper is:

"Demonstrating Value on Par with our AUKUS Partners, Rethinking Innovation for SMEs"

2.2 Adjustment of the Research Topic

The original problem statement was framed as a research question, emphasising exploration: *"How can Australia's defence sector leverage technology and integrate SMEs into the value chain to create a competitive edge, foster innovation, and demonstrate value on par with its AUKUS partners?"* While effective for guiding the authors initially, it lacked the immediacy and strategic tone the team felt was needed to engage senior decision-makers.

The title *"Demonstrating Value on Par with our AUKUS Partners: Rethinking Innovation for SMEs"* was chosen to shift the focus from asking *how* to leverage technology to support SMEs in the defence sector, to asserting the *importance* and *urgency* of leveraging SMEs to provide the technologies of value in the defence sector. This title aims to convey three critical elements:

1. **Strategic Alignment:** Positions the paper within the AUKUS context, signalling relevance to national security priorities.
2. **Outcome Orientation:** "Demonstrating Value" emphasises measurable impact and accountability, moving beyond theoretical discussion.
3. **Transformational Imperative:** "Rethinking Innovation" highlights the need for systemic change, resonating with policymakers and industry leaders.

This change reframes the paper as a call to action rather than an academic exercise, ensuring it speaks directly to the urgency and ambition of Australia's defence innovation agenda.

2.3 Geopolitical Context

The Indo-Pacific region is entering a period of heightened strategic instability. As stated by U.S. Defense Secretary Pete Hegseth at the Shangri-La Dialogue in June 2025:

"It should be clear to all that Beijing is concretely and credibly preparing to use military force to alter the balance of power in the Indo-Pacific. We know that Xi Jinping has ordered his military to be ready to invade Taiwan by 2027. The PLA is building the capabilities needed to do it at breakneck speed. The PLA is training for it, every day. The PLA is rehearsing for the real deal. Let me be clear: any attempt by Communist China to conquer Taiwan would result in devastating consequences for the Indo-Pacific and the world. We are not going to sugarcoat it. The threat China poses is real. And it could be imminent."
— Pete Hegseth, Shangri-La Dialogue, June 2025 [uat.aspi.org.au]

This statement underscores the urgency with which regional powers, including Australia, must reassess their strategic posture. Conventional defence models centred on scale, centralised command, and legacy systems may be inadequate in the face of fast-moving, asymmetric threats posed by superpowers.

This paper investigates the role that SMEs play in achieving asymmetrical advantage through innovation, and the structural, policy, and industrial shifts that are required in Australia to adequately support them.

3 METHODOLOGY

3.1 Research Design and Purpose

This study adopted a mixed-methods qualitative research design to explore how SMEs can be more effectively integrated into Australia's defence innovation and industrial ecosystem within the AUKUS framework. The primary objective was to identify practical interventions that enhance competitiveness, foster innovation, and strengthen sovereign capability, while addressing systemic barriers to SME participation in the defence sector.

The qualitative emphasis provided depth and contextual understanding of lived SME experiences, while comparative analysis enabled benchmarking against international best practice. This two-pronged approach balanced empirical insight with strategic analysis, yielding evidence-based recommendations for policy and industry reform.

3.2 Analytical Framework

A four-stage analytical framework guided the research process, enabling integration and validation across diverse data sources:

1. **Stakeholder Engagement**. Captured practitioner perspectives through interviews and survey responses to validate theoretical findings with lived experience.

2. **Comparative Case Study Analysis**. Contrasted the exemplary model of innovation in the Australian Defence Sector (JORN) against contemporary military innovation of relevant AUKUS Pillar 2 technologies.

3. **Policy and Program Analysis**. Examined national and international defence innovation frameworks to identify alignment between strategic intent and implementation outcomes.

4. **Literature Review**. Synthesised academic, industry, and government materials to contextualise SME innovation and capability development within Australia's defence sector.

This structure ensured coherence between strategic insight and practical realities, reinforcing the policy relevance of the study's findings.

3.3 Primary Data Collection

3.3.1 Stakeholder Interviews and Survey Response

Primary data from the Australian defence industry was gathered through semi-structured interviews and emailed surveys targeting industry stakeholders.

- **Interviews**. A total of 15 semi-structured interviews were conducted using purposive sampling to ensure diversity across firm size, sector, and level of Defence engagement. Participants included SME founders, consultants, innovation program members, policy representatives and industry specialists in Global Supply Chain (GSC) program. Interview topics explored procurement experiences, accreditation barriers, collaboration under AUKUS, and strategies to strengthen SME competitiveness.

- **Survey**. A digital questionnaire identified in Appendix A was distributed to 164 stakeholders across SMEs, primes, government agencies, and research organisations. Eleven valid responses were received. Key findings highlighted certification and compliance costs, limited internal capacity for defence participation, and complexity in procurement systems such as ASDEFCON.

The combined evidence from interviews and surveys reveals that Australia's Defence SME ecosystem suffers from policy fragmentation, high entry costs, and slow institutional adaptation. Survey findings and key challenges as reported by survey respondents have been summarised in Section 4.7 along with the findings of the literature review, case studies, and policy analysis.

3.3.2 Comparative Case Study Analysis

Primary data was also gathered through comparative case studies including Australia's *Jindalee Operational Radar Network (JORN)* and Ukraine's wartime SME innovation ecosystem, illustrating two contrasting yet instructive pathways: sustained sovereign capability development and rapid, SME-led adaptation. Together, they highlighted the necessity of balancing long-term planning with agile innovation capacity to cope with the rate of development in current technologies.

3.3.3 International Policy and Program Analysis

International policy analysis was also conducted in support of this paper, examining SME integration models across Australia's AUKUS partners; the United Kingdom and the United States. Both nations demonstrated proactive SME engagement through targeted funding, legislated procurement quotas, and streamlined compliance processes. Notably, the UK's *Defence Industrial Strategy 2025* and the US *Small Business Innovation Research (SBIR)* program were identified as exemplary frameworks.

3.4 Literature Review (Secondary Data Collection and Analysis)

3.4.1 Data Sources

The literature review comprised over twenty authoritative publications spanning 2015-2025, providing a key source of secondary data for this research. Key references included:

- *Accelerating Asymmetric Advantage* (Department of Defence, 2024);
- *Defence Strategic Review* (Commonwealth of Australia, 2023);
- *National Defence Strategy* (Commonwealth of Australia, 2024);
- *Defence Industry Development Strategy* (Department of Defence, 2024);
- *Developing Key Industrial Capabilities for Canadian Defence Small and Medium Enterprises: Creating a Competitive Defence Industrial Base.* (Holder, 2015)
- Industry white papers (PwC, AmCham & ABCC, 2024);
- *Navigating Defence Opportunities for SMEs* (Hunter Defence, 2023).
- *Submission to the Senate Inquiry on Supporting the Development of Sovereign Capability in the Australian Tech Sector* (Bradshaw et al., 2024); and

- University and think tank reports (University of Western Australia, 2023; United States Studies Centre, 2023);

3.4.2 Thematic Coding

Each document was evaluated for credibility, relevance, and methodological transparency. Extracted information was coded against five thematic domains:

- Innovation culture;
- Funding and financing mechanisms;
- Procurement and compliance barriers;
- Collaboration and partnership models; and
- Workforce and skills development.

Analysis revealed persistent gaps between policy ambition and implementation outcomes, particularly regarding procurement accessibility, mentoring pathways, and SME eligibility for government programs.

3.5 Validation and Triangulation

To enhance credibility, findings were validated through triangulation across three evidence layers:

1. **Academic and policy literature**. Establishing theoretical and strategic foundations;
2. **Cross-national frameworks**. Benchmarking against proven international practices; and
3. **Stakeholder perspectives**. Ensuring empirical grounding through real-world insights.

This approach strengthened internal validity, mitigated researcher bias, and ensured alignment between policy intent, international precedent, and SME experience.

3.6 Ethical Considerations

Ethical standards were upheld throughout the research process. Participants were informed of the voluntary nature of their involvement and assured of confidentiality. No personally identifiable information is presented in this report. All secondary sources are appropriately referenced using APA citation conventions to maintain transparency and academic integrity.

3.7 Limitations

While the study's qualitative and comparative approach allows for depth and contextual insight, it inherently limits quantitative generalisability. The small interview and survey sample size reflects the exploratory scope of the research rather than statistical representation. Future studies could extend this work through more comprehensive data collection or econometric modelling of SME participation and procurement trends. Nonetheless, the methodology has been assessed to achieve a sound empirical and analytical foundation that is fit for purpose in providing contemporary industry insights and defensible policy recommendations.

4 RESEARCH FINDINGS

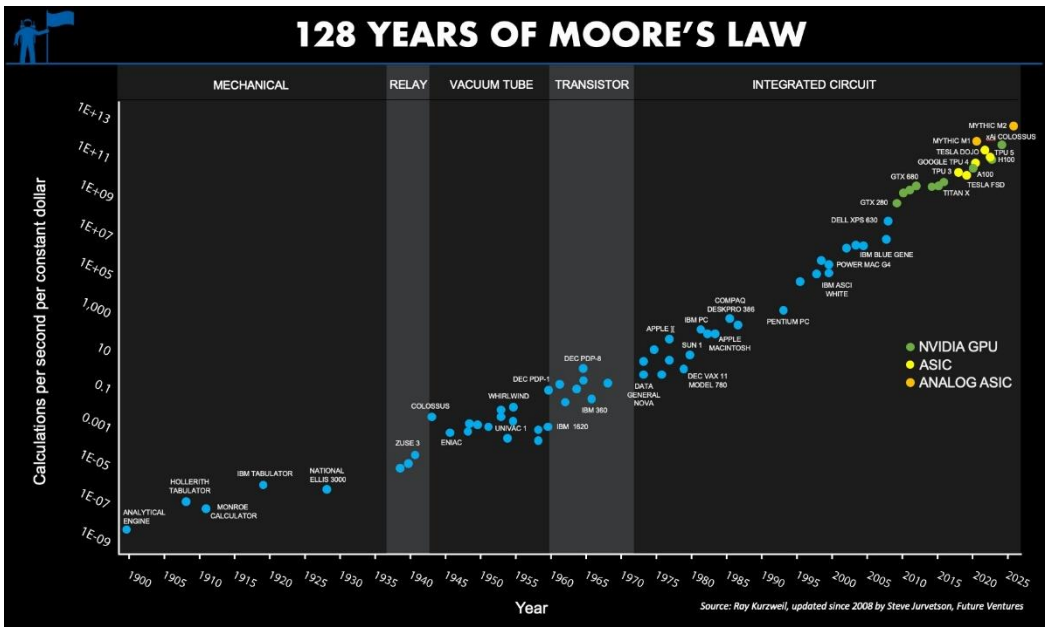
4.1 Changing Innovation Timescales

4.1.1 Introduction

Emerging technologies are advancing rapidly and changing constantly. Moore's law can provide an apt reasoning for this, observing that the number of transistors in an integrated circuit doubles every two years; a trend which has held since it was first postulated in the 1970s (Sandhie et al., 2022). Some explanation for the geopolitical instability as described in Section 2.3, may be attributed to accessibility of the latest computing chips – critical to emerging commercial and military technologies. (Wang et al., 2023). The latest chips at the time of this report are capable of housing 80 billion transistors (Liu et al., 2024), as depicted in the figure below this historical 'doubling' provides an exponential efficiency gain for both computing power and commercial cost per computation (Figure 1). The importance of these trends in technological development and leaps in computing power is that with commercial and defence capabilities more software based than ever before, technology is now becoming *outdated* or *outmatched* in the military context and an unprecedented rate.

Figure 1

Historical Observations of Moore's Law



Note. From "The Moore's Law Update – for 128 years," Steve Jurvetson, 2024.

Comparative analysis of a widely acknowledged exemplar of Australian innovation in the Jindalee Operational Radar Network (JORN), alongside contemporary examples of military innovation in the Ukraine provides a tangible example of the pace of innovation in technologies today and highlights that our existing models for innovation cannot be transplanted onto today's technologies. The aim of this comparative case study is to guide our recommendations, and ensure the best of the lessons learned through JORN can be applied in a manner that is fit for purpose in the agile environment relevant to many contemporary strategic technology focus areas.

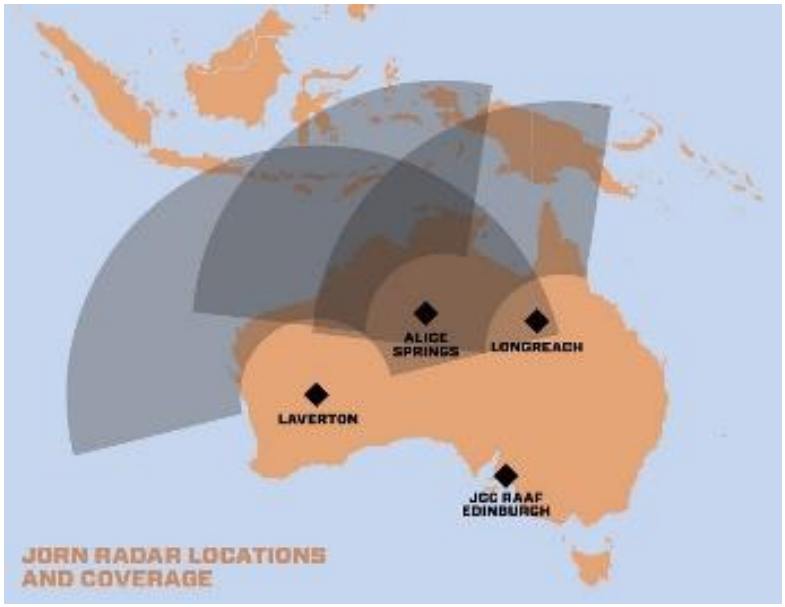
4.1.2 Case Study 1: The Jindalee Operational Radar Network (JORN) – Building Sovereign Capability through Long-Term Innovation

The **Jindalee Operational Radar Network (JORN)** represents how sustained investment in a niche technology can cultivate genuine sovereign capability. Originating in the 1950s, JORN evolved through a multi-decade process encompassing fundamental research, prototype testing, and localised production. This systematic approach ensured that continued investment had a pathway to capability and critical radar engineering expertise and technological know-how remained within Australia, rather than being outsourced or imported.

Managed through various stages up to 2018, JORN's development model represents a traditional pathway to sovereign capability, characterised by innovation, long-term funding continuity, and domestic manufacturing. The result was a highly specialised over-the-horizon radar system that continues to serve as a strategic national asset, providing wide-area surveillance across Australia's northern approaches (Figure 2).

Figure 2

JORN Radar Locations and Coverage

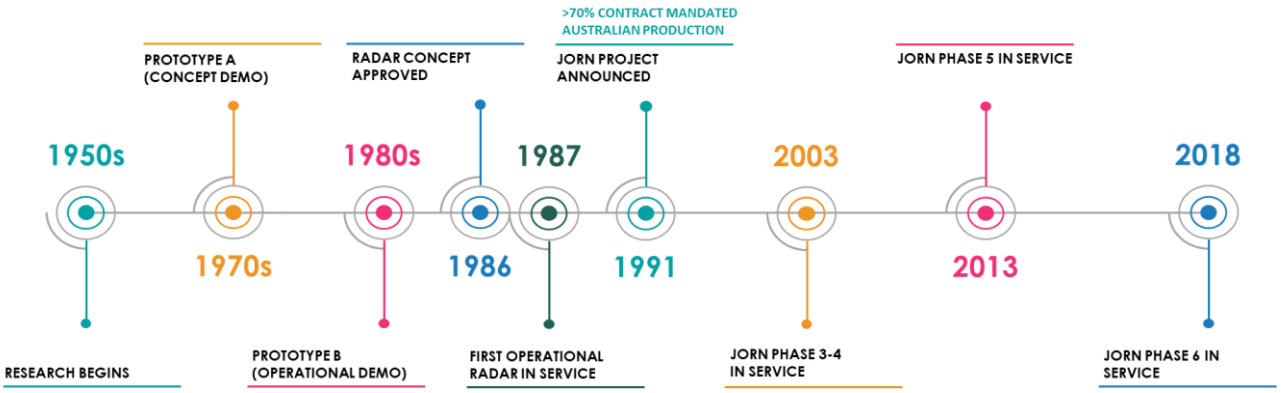


Note. From Australian Defence Business Review [ADBR], 2019.

A timeline of key milestones throughout JORN's evolution from early research in ionospheric radar physics, to full operational capability has been collated in detail through Figure 3 and the following supporting descriptions. Analysis of the program trajectory in this way allows for the exemplary approach to innovation to be separated where possible from the timeline so it may be contrasted with more contemporary approaches to innovation.

Figure 3

JORN Development Timeline (1950s–2018)



Year	Event / Milestone	Description & Significance
1950s	Research Begins	Defence Science and Technology Organisation (DSTO) initiates research into ionospheric propagation and over-the-horizon radar (OTHR) principles. These foundational studies establish Australia's early expertise in high-frequency radar science.
1970s	Prototype A (Concept Demonstration)	The first Jindalee prototype (Stage A) validates the feasibility of OTHR by successfully detecting distant aircraft through ionospheric reflection.
1980s (Early)	Radar Concept Approved	The Australian Government approves continued development following promising trials, recognising the potential for sovereign wide-area radar surveillance.
1986	Prototype B (Operational Demonstration)	Jindalee Stage B demonstrates operational reliability and enhanced detection accuracy, bridging the gap between R&D and practical application.
1987	JORN Project Announced	The JORN program is formally launched, with more than 70% of production mandated to be Australian-made, preserving critical skills and sovereign capability.
1991	First Operational Radar in Service	The first JORN site achieves operational readiness, marking Australia's entry into the elite group of nations with operational OTHR capability.
2003	JORN Phases 3–4 in Service	System modernisation improves radar range, digital processing, and reliability. The program expands to cover larger surveillance zones.
2013	JORN Phase 5 in Service	Integration of modern computing and advanced signal processing enhances automation, clutter rejection, and target discrimination.
2018	JORN Phase 6 in Service	Represents full system maturity with adaptive processing, advanced data fusion, and enduring sovereign sustainment managed by BAE Systems Australia.

Note. Data adapted from "Jindalee Operational Radar Network", Defence Science and Technology Group [DSTG], 2025.

This historical progression reflects nearly seven decades of continuous innovation, where each phase built incrementally upon prior technological success. The deliberate pacing ensured that technical mastery and production competence remained embedded in Australian industry and research institutions.

4.1.2.1 From Traditional Timelines to Agile Innovation

JORN continues to provide a model for the Australian Defence Industry for the staged approach to investment in defence technology innovation in Australia however, replicating JORN's multi-decade

development cycle is increasingly impractical in the current technological landscape. Emerging domains such as artificial intelligence (AI), autonomous systems, and unmanned aerial platforms evolve at unprecedented speeds—often within months rather than decades.

This rapid pace of technological change demands a paradigm shift from traditional, long-horizon defence projects toward agile innovation ecosystems. Such ecosystems thrive on collaboration with SMEs, which are often better positioned to prototype, test, and iterate rapidly. Supporting these agile entities can deliver asymmetric capabilities and sustain technological advantage in a compressed timeframe.

4.1.2.2 Key Insight

The JORN case study demonstrates that while long-term national projects can successfully embed sovereign expertise, future competitiveness in the emerging technologies relevant to AUKUS partnership and particularly AUKUS Pillar 2 depends on Australia's ability to enable fast-moving, adaptive innovation networks. Balancing the enduring benefits of deep domestic capability with the agility of modern technology cycles is critical to sustaining sovereign advantage in the current strategic environment.

4.1.3 Case Study 2: Ukraine's Defence Innovation Ecosystem — SMEs at the Frontline of Industrial Agility

4.1.3.1 Background

Amidst the ongoing conflict with Russia, Ukraine has pioneered a new model of national resilience and industrial mobilisation. Rather than matching Russia's vast military scale, Ukraine has strategically embraced speed, innovation, and adaptability, led predominantly by SMEs. These firms have become the backbone of wartime innovation and industrial endurance, turning adversity into opportunity.

4.1.3.2 SMEs as Catalysts of Defence Transformation

Despite wartime challenges, over 60% of Ukrainian SMEs remained operational after the 2022 invasion (OECD, 2023). Many of these enterprises quickly adapted:

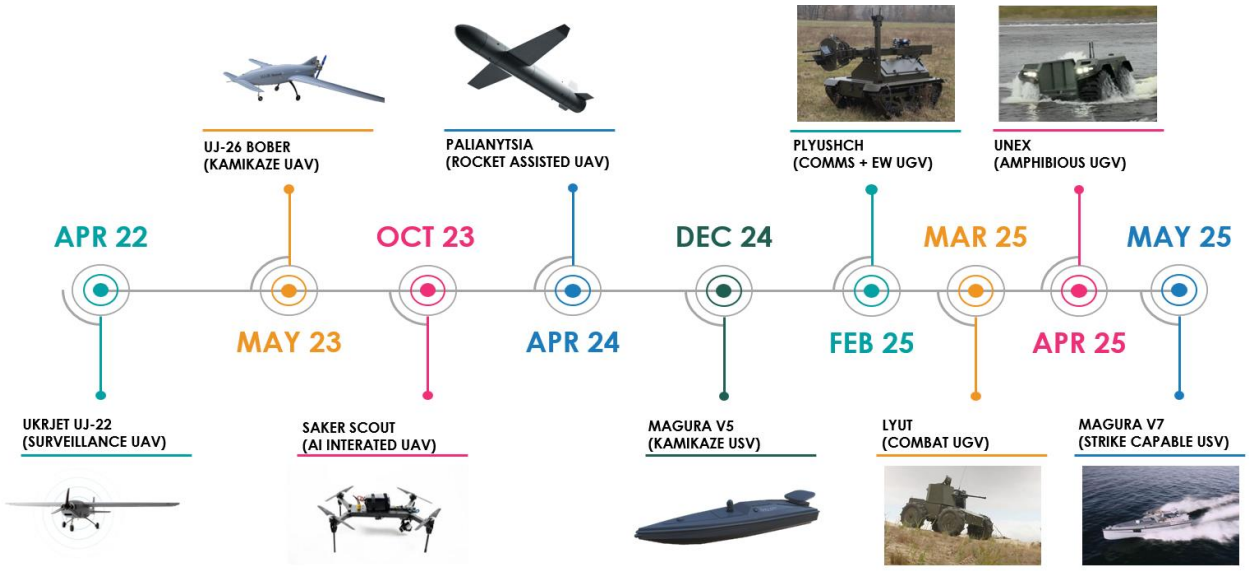
- 17% transitioned to defence-related production, meeting urgent national security needs.
- 13% relocated to safer regions to sustain continuity of operations (Ministry of Economy of Ukraine, 2023).
- Entrepreneurial activity has surged, with 31,477 new entrepreneurs registered in June 2023, averaging 25,000 new business registrations monthly (Diia.Business, 2023).

This wave of entrepreneurial dynamism has fostered rapid innovation cycles. Since the war began, more than 500 drone manufacturing companies have emerged in Ukraine (Forbes Ukraine, 2024), driving a new era of defence technology modernisation focused on automation, precision, and cost-efficiency

4.1.3.3 Defence Innovation Timeline

The Ukrainian unmanned systems sector shows a structured and accelerated evolution of technologies:
Figure 4

Ukraine's Defence Innovation Ecosystem Development (2022–2025)



Year	Platform	Type	Innovation Focus
Apr-2022	UJ-22	Surveillance UAV	Long-range ISR capability
May-2023	UJ-26 Bober	Kamikaze UAV	Long range strike missions
Oct-2023	Saker Scout	AI-integrated UAV	Autonomous targeting
Apr-2024	Palianytsia	Rocket-assisted UAV	Long range missile strike capability
Dec-2024	Magura V5	Kamikaze USV	Maritime interdiction
Feb-2025	Plyushch	Comms + EW UGV	Electronic warfare integration
Mar-2025	Lyut	Combat UGV	Ground assault capability
Apr-2025	Unex	Amphibious UGV	Cross-domain mobility
May-2025	Magura V7	Strike-capable USV	Swarm and hybrid strike systems

Note. Data adapted from "Ukrainian Military Tech Timeline and Analysis (2022-2025)", Bloomsbury Intelligence & Security Institute, 2025.

4.1.3.4 Key Success Factors

1. **Decentralised Innovation:** SMEs worked in distributed clusters, ensuring redundancy and rapid response to evolving battlefield needs.
2. **Rapid Prototyping and Iteration:** Continuous frontline feedback compressed R&D timelines from months to weeks (Atlantic Council, 2024).
3. **Public–Private Collaboration:** Coordination between the Ministry of Defence and the private sector enabled fast adoption of dual-use technologies.

4. **Agile Manufacturing:** Additive manufacturing and modular production reduced costs and improved scalability under wartime conditions.

4.1.3.5 Strategic Implications

Ukraine's SME-driven defence ecosystem shows that industrial agility can offset numerical disadvantage. By embedding commercial innovation into national defence strategy, Ukraine has demonstrated that speed and adaptability are key dimensions of modern power.

As U.S. Secretary of the Army Christine Wormuth stated:

"If the frontline is moving faster, so must the factory floor. Industrial power is national power — and in an age of strategic competition, that power must be built for speed."

(U.S. Department of the Army, 2023)

4.1.3.6 Key Insight

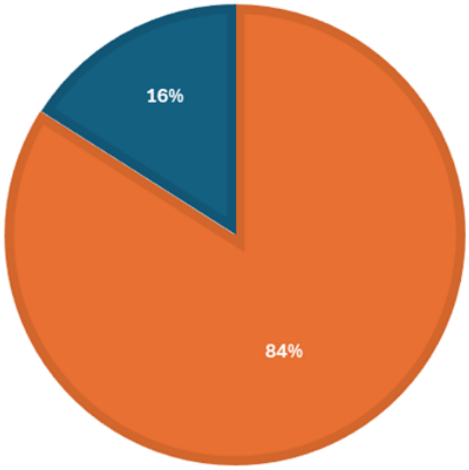
Ukraine's wartime SME ecosystem has redefined industrial resilience. It illustrates how entrepreneurial innovation, when aligned with national strategy, can sustain a nation's defence capability, drive economic renewal, and project influence on the global stage.

4.2 SME's Crucial Role in Innovation

SMEs are the backbone of Australia's defence innovation ecosystem. According to the Defence Industry Development Strategy (2024), SMEs comprise up to 80% of Australia's defence industry and are central to delivering sovereign capability. Reports produced by the Australian Small Business and Family Enterprise Ombudsman cite figures as high as 84% as seen in Figure 5 below. Government programs such as the Defence Innovation Hub and the Small Business Innovation Research for Defence (SBIRD) initiative channel significant funding into SME-led projects, supporting disruptive technologies in areas like AI, autonomy, advanced sensors, and cyber systems. Policy think tanks, including ASPI, emphasize that SMEs provide agility and risk tolerance essential for rapid innovation, warning that excluding them risks hollowing out Australia's innovation pipeline.

Figure 5

SME Representation in Australian Industry



Note. Percentage of business in Australia classed as SMEs shown in orange. Figure adapted from data presented in "Small business Counts December 2020", Australian Small Business and Family Enterprise Ombudsman [ASBFEO], 2020.

Despite constituting over 80% of the Australian defence industrial base, SME involvement in major Defence procurement programs remains disproportionately low, representing just 3% of total Defence spending (Bradshaw et al., 2024, p. 8). This stark contrast underscores a systemic underutilisation of SMEs, which, despite their numerical dominance, are largely sidelined in high-value projects. The limited financial allocation to SMEs constrains their growth potential and reduces the diversity of solutions feeding into Defence capabilities.

However, SMEs demonstrate a remarkable ability to contribute disproportionately to innovation. Their size and operational flexibility allow them to adopt new technologies quickly, pivot in response to emerging challenges, and apply cutting-edge research and development (R&D) more rapidly than larger, more bureaucratic organisations. SMEs are at the forefront of advanced manufacturing techniques, artificial intelligence applications, and autonomous systems development. These areas are critical for modern Defence operations, where adaptability, technological edge, and rapid deployment of innovative solutions can determine operational advantage.

A significant driver of this imbalance is the structure of Defence procurement policies, which, as the submission notes, "favour established multinational primes." Large prime contractors often have entrenched relationships, extensive compliance capabilities, and the financial leverage needed to secure major contracts. In contrast, SMEs face structural barriers such as stringent prequalification requirements, complex tendering processes, and high administrative burdens that limit their ability to scale and compete for high-value opportunities. These barriers can prevent SMEs from demonstrating their full potential in delivering innovative solutions, thereby reducing diversity and flexibility in Defence acquisition.

4.3 Vulnerable SME Revenue Sources

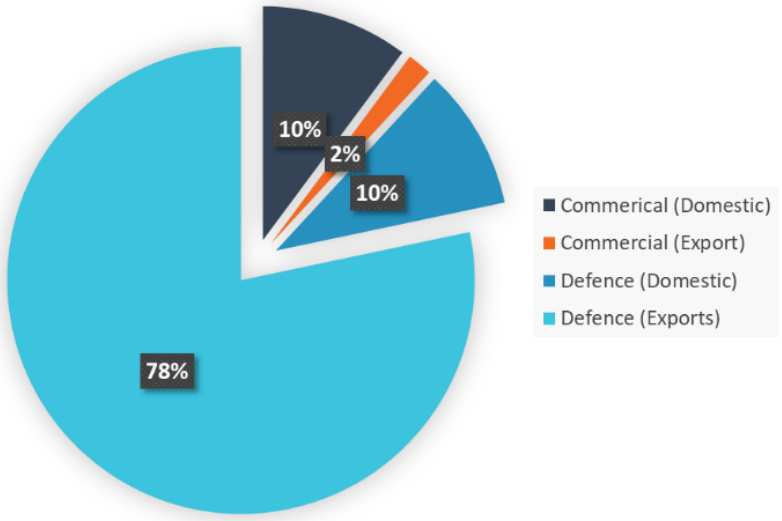
A 2015 research paper on leveraging SMEs to create a competitive Canadian Defence Industry cited our export focussed industrial strategy as exemplary, including examples of effective supporting programs such as the Priority Industrial Capability Innovation Program (PICIP), and the GSC program (Holder, 2015, p.28-

31). The observed aim of this strategy as described within the Holder report was to encourage foreign firms to invest or partner with domestic firms, promoting international collaboration, technology sharing and crucially inroads into the export market to support financial growth of Australian SMEs.

However, as indicated in the Bradshaw report and the statistics provided by survey respondents – see Figure 6, this has been achieved in isolation from the domestic market and more resilient revenue sources. Total Defence spending of 3% for SMEs indicates a significant underinvestment in smaller businesses given the scale of SME contributions outlined in Section 4.2 (Bradshaw et al., 2024, p. 8). This lack of domestic funding forces reliance on exports or domestic commercial markets for survival, rather than benefiting from local defence contracts. As a result, Australia's industry landscape is polarised, with a few large multinational primes and thousands of small businesses, but very few medium sized firms bridging the gap. Sustainable growth requires consistent cash flow and opportunities, yet the absence of domestic contracts limits SMEs' ability to scale.

Figure 6

Annual revenue distribution of SME survey respondents



Note. Figures have been averaged across all anonymous survey respondents.

4.3.1 Export Reliance and Sovereignty Risks

Many Australian SMEs are forced to rely on export markets, particularly the U.S. and U.K., to sustain business viability.

- DroneShield, a leader in counter-drone technology, which generates over 80% of its revenue from exports (DroneShield Annual Report, 2023).
- SPEE3D, an advanced additive manufacturing company, which has expanded primarily through partnerships with international defence forces.
- Minelab, globally recognised for metal detection and landmine detection systems, which exports to over 160 countries but receives minimal domestic Defence contracts.

Interviews conducted with Industry specialists in the GSC program identified that when more than 47% of supply is directed to the US, businesses face high risk of failure due to export complexities and inconsistent payment cycles. These findings underscore the urgent need for policy and procurement reforms to better support SMEs domestically and reduce their over-reliance on volatile international markets. This

dependency exposes them to supply chain volatility and cash-flow instability, as foreign procurement cycles are unpredictable.

"Australia's overreliance on foreign contracts for SME viability undermines sovereign industrial resilience." *(Bradshaw et al., 2024)*

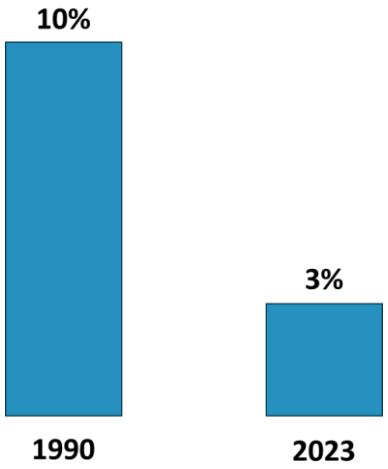
Statistics collated from anonymous survey respondents highlighted the scale of this exposure risk for some SMEs in the defence sector – See Figure 6. Whilst entering the export market remains an end goal for many SMEs to scale their business, based on the above guidance from GSC industry specialists all these businesses exceed the threshold and would be flagged with a high risk cashflow. Under these circumstances businesses would often be guided towards producing dual use technologies or exploring further commercial opportunities to ensure the business remains viable and stable enough to participate in the GSC program.

4.4 Decline in SME Participation

Data obtained through this research indicates a clear and consistent decline in the participation of SMEs over the past three decades. In 1990, SMEs accounted for approximately 10% of direct involvement in their respective industries or sectors. By 2010, this share had halved to just 5%, and by 2023, it further dropped to a mere 3%. This trend reflects a significant reduction in the role SMEs play in the market landscape over time *(Bradshaw et al., 2024, p. 11).*

Figure 7

Current State of SME Representation in Defence Sector Projects



Note. Figure adapted from data provided in "Submission to the Senate Inquiry on Supporting the Development of Sovereign Capability in the Australian Tech Sector", Bradshaw et al., 2024.

4.5 Australian Defence Sector Challenges

SMEs represent a critical engine of innovation within Australia's defence sector. Despite this significant role, their integration into core defence capabilities remains constrained by a range of systemic barriers which can be summarised as:

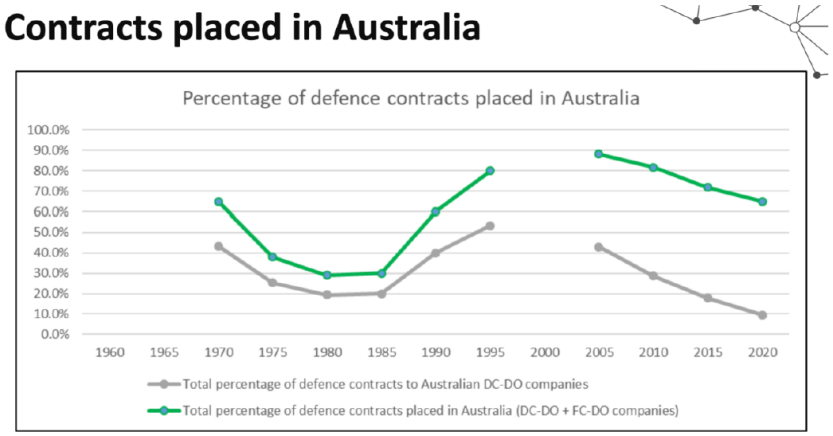
1. Inconsistent strategic direction and demand cycles
2. Significant costs associated with compliance (security accreditation and export controls)
3. Complex procurement system

4. Challenges in skilled labour attraction and retention
5. Risk-averse culture

Chief among these challenges is a consistent decline in available defence contracts over the last decade creating a highly competitive tendering process for both Primes and SMEs alike – see Figure 8. Decline in available work creates an environment in which larger businesses are pursuing a greater majority of the contracts. For competing SMEs, operating with limited financial buffers and fewer resources, they are disproportionately affected by reduction in contracts and struggle to compete without avenues for set-aside projects as discussed in Section 4.6. This decline in tenders has even accelerated further through the same period as the 2023 Defence Strategic Review despite a marked increase in defence spending (IISS, 2025). The number of contracts issued in November peak periods continued to decline with near *70 tenders* issued in years 2019 to 2021 and only *28 and 34 tenders* issued in 2022 and 2023 respectively (Bradshaw et al., 2024, p.19).

Figure 8

Historical Decline in Australian Defence Contracts



Note. From "Submission to the Senate Inquiry on Supporting the Development of Sovereign Capability in the Australian Tech Sector", Bradshaw et al., 2024.

Procurement processes for the limited available contracts are often prohibitively complex, requiring extensive administrative effort and compliance with demanding standards such as Defence Industry Security Program (DISP) registration, ISO certification, and International Traffic in Arms Regulations (ITAR) alignment. These burdens disproportionately affect smaller firms, which typically lack the internal resources to absorb such costs. The absence of streamlined pathways into defence procurement further compounds the challenge, limiting SME participation in strategic projects.

In response to limited domestic support, many SMEs pursue international markets, particularly the United States, to sustain operations. While this strategy may offer short-term viability, it introduces strategic vulnerabilities. Overreliance on exports exposes SMEs to regulatory delays, foreign policy shifts, and cash flow instability. Such dependencies may compromise Australia's sovereign industrial base in times of geopolitical tension or supply chain disruption.

Another pressing issue is the difficulty in attracting and retaining skilled labour, a challenge exacerbated by competition from larger defence organisations offering more stable career pathways.

Beyond financial and procedural barriers, SMEs contend with entrenched cultural biases within Defence and industry. There exists a prevailing perception that small firms lack the scale, reliability, or maturity to deliver mission-critical capabilities. This view neglects the agility, responsiveness, and specialised expertise

that SMEs offer—attributes increasingly vital in a rapidly evolving strategic environment. Addressing these barriers is essential to unlocking the full potential of SMEs and strengthening Australia's sovereign defence industrial base.

4.6 SME Support Provided by AUKUS Partners

4.6.1 Introduction

Evidence already presented demonstrates that without significant reform, the operating environment for Australian SMEs in the defence sector will remain challenging. To identify potential solutions to the challenges identified in the previous section, the project team examined approaches adopted by our AUKUS partners, where strong emphasis has been placed on supporting innovative firms.

This analysis revealed a substantial gap between the level of SME support provided in the United Kingdom and the United States compared to Australia. This disparity underscores a critical risk: without decisive action to level the playing field, Australia will struggle to build sovereign capability through innovation. Learning from the strategies employed by our allies is essential to ensure that local SMEs can compete effectively and contribute to national security objectives.

4.6.2 United Kingdom's Approach

The UK Ministry of Defence has recently introduced several policy changes to support their SMEs and drive innovation, some of which are detailed in their Defence Industrial Strategy that was released in September 2025. The objectives of the UK *Defence Industrial Strategy: Making Defence an Engine for Growth* is articulated clearly through their title and vision described in a 112-page document published by the Ministry of Defence.

"Our Vision: People across the UK feel the maximum benefit from increasing defence spending, and the UK has a more competitive, integrated, innovative and resilient defence sector" – UK Defence Industrial Strategy 2025

Key parts outlined in this strategy that relate to SME support directly relevant to the challenges faced by Australian SMEs include:

1. Increased overall Defence spending
2. New SME spending targets
3. A new UK Defence innovation organisation,
4. Reducing barriers to access for T&E, and
5. Industrial Strategy Zones

The United Kingdom provides a strong example of how structured policy and investment can enable SME growth in the defence sector. Legislated procurement targets for SMEs offer a degree of investment certainty, ensuring smaller companies have predictable opportunities to participate in government contracts.

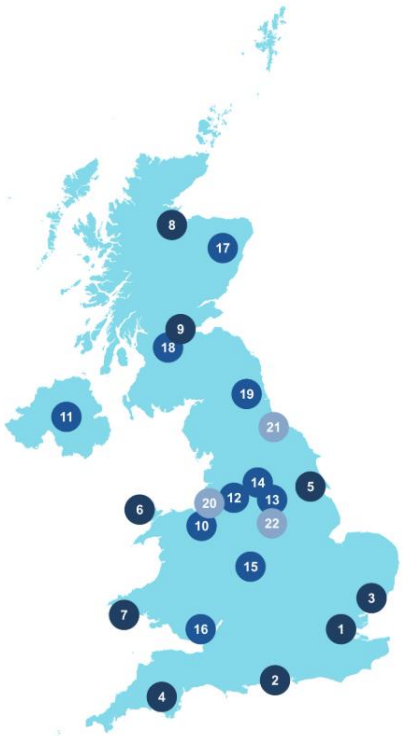
In addition, the Ministry of Defence publishes its future pipeline of work through resources such as the Defence Investment Plan, Acquisition Pipeline, and Sector Plans. These publications give industry clear visibility of upcoming projects, helping SMEs make informed decisions about where to invest.

The UK has also introduced Industrial Strategy Zones shown in Figure 9, which align the existing concepts of Investment Zones and Freeports. These zones encompass high-potential industrial clusters across growth-

driving sectors of the economy and provide significant reinvestment into local communities, particularly benefiting SMEs.

Figure 9

UK Industrial Strategy Zones



Note. Industrial zone numbering corresponds to key sites described in detail in the UK 2025 Industrial Strategy. From "Defence Industrial Strategy 2025: Making Defence an Engine for Growth", Ministry of Defence, 2025.

Furthermore, the UK government strongly supports the development of a highly skilled, versatile workforce capable of moving between sectors. This cross-sector mobility ensures workforce resilience and adaptability to meet planned capability needs.

4.6.3 United States Approach

The United States strategy to support its defence industrial base recognises that solutions cannot rely only on the US Department of War. Instead, the US approach highlights coordination across the entire US Government, private industry, and international allies and strategic partners.

The US also operates successful programs coordinated by the Small Business Administration (SBA) that provide SMEs with incentives and benefits, some of which extend to larger SMEs. The Small Business Set-Aside Program ensures that purchases up to $250,000 are automatically reserved for small businesses, giving them a fair opportunity to compete for government contracts.

Another key initiative is the Small Business Innovation Research (SBIR) Program, which allocates approximately $2.5 billion annually to fund R&D projects with commercialisation potential. The Department of War is the largest participant in SBIR, accounting for roughly 40% of the total grant value. These programs demonstrate how targeted funding and structured procurement policies can accelerate innovation and strengthen SME participation in the defence ecosystem.

Figure 10

SBA Small Business Set-aside Requirements

Contract value (US$)	Small business set-aside requirement
$10,00 to $250,000	Automatically and exclusively set aside for small businesses
$250,000 or more	Set aside if there are two or more small businesses that could do the work (other socio-economic set-asides to be considered)
$750,000 or more (non-construction contracts)	Must have a subcontracting plan if awarded to a non-small business
$1.5 million or more (construction contracts)	Must have a subcontracting plan if awarded to a non-small business

Note. Adapted from SBA website, U.S Small Business Administration [SBA], 2025.

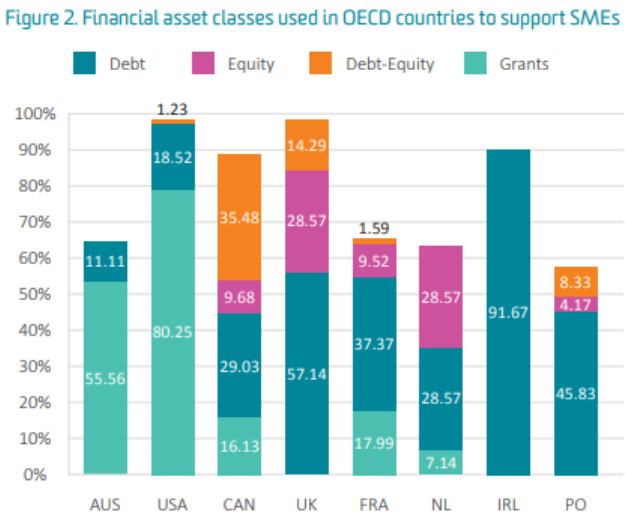
4.6.4 Comparison with Australia's approach

At a strategic level, Australia shares strong alignment with its AUKUS partners—the United States and the United Kingdom—particularly in prioritising international collaboration and innovation in advanced technologies under Pillar 2. All three nations recognise the importance of joint defence initiatives and the development of cutting-edge capabilities in areas such as quantum technologies, artificial intelligence, and undersea systems. This shared vision underpins the broader AUKUS framework and reflects a commitment to collective security and technological advancement.

However, notable differences exist between the partners, particularly in terms of defence spending, access to finance programs supporting SMEs and the level of coordination for SME support. The scale of defence budgets varies significantly between AUKUS countries, both in percentage of GDP and total expenditure, directly influencing the capacity for investment in new technologies and infrastructure. Additionally, the financial asset classes used to support SMEs, differ significantly as shown in Figure 11.

Figure 11

Financial asset classes used in OECD countries to support SMEs



Note. From "The Case for a National Australian Small Business Agency", The IPA-Deakin SME Research Centre, Deakin University, 2022.

As shown in Figure 11, Australia and the United States prioritise grants and tax incentives over debt support, whereas the UK relies primarily on private equity rather than grants. Government grants are primarily used for R&D and commercialisation, suggesting governments use grants to prioritise investment in certain sectors or areas of business. The UK hosts one of Europe's largest and most advanced venture capital and equity crowdfunding markets, representing 74% of regional activity. Consequently, government support for private equity financing in the UK (which is primarily used to drive growth) is significant, accounting for 28% of all SME-related assistance. The differences in financial asset classes used by AUKUS partners to support their SMEs, highlight that support can be focussed to achieve distinct outcomes, and that the current Australian focus on grants is useful to drive innovation through R&D.

Australia's Small Business and Family Enterprise Ombudsman (ASBFEO), established in 2015, advocates for small businesses by ensuring legislation and practices do not hinder growth. However, its scope is narrower than similar agencies in other AUKUS countries, which often provide capital, contracting, and training services. The fragmented state and federal support in Australia, coupled with the absence of a centralised national agency, results in low awareness, duplication, and high search costs for SMEs. While business.gov.au serves as a central information portal, its search functionality does not effectively filter SME-specific programs.

Recognising the challenge above, the Minister for Defence Industry, The Honourable Pat Conroy, has emphasised the importance of supporting medium sized businesses that contribute to sovereign capability. In 2022, he stated: "Growing medium sized businesses, who are developing and delivering sovereign capabilities, will be a key marker of success for me in the long term." This statement reflects a broader policy shift towards nurturing domestic industry and ensuring that Australia can independently develop and sustain critical defence technologies.

Having now identified examples of, and the significant difference in, support available to the various AUKUS partners, the question becomes what Australia can do to create an environment that supports SME growth and enables the development of sovereign capability. Addressing this gap is not only essential for meeting AUKUS objectives, but also for strengthening national resilience and economic opportunity.

4.7 Research Findings Summary

4.7.1 Literature and Stakeholder Engagement Summary

The available literature and responses from industry stakeholders identified a significant disparity between the reliance on SMEs for innovation in Western economies and the level of policy and financial support available within Australia. Outlined in Section 4.2, SMEs are shown to conduct a disproportionate amount of research and development in comparison to Primes, and as discussed further through Section 4.3, the majority of SME revenue supporting this sovereign development is being derived from exports and foreign markets.

The positives associated with SME exports cannot be viewed in isolation and are accompanied by a documented decline in SME participation in the Australian defence sector described in Section 4.4. This has created a significant exposure risk for SMEs according to interviewed Industry Specialists in the GSC Program. Further industry wide challenges unique to the Australian context described in Section 4.5 paint a picture of a defence industry that is ultimately less economically viable for Australian SMEs than for international competitors posing a legitimate risk to goals of sovereign capability.

4.7.2 Comparative Case Study Summary

Case studies exploring the models of innovation used in the highly successful JORN project (Section 4.1.1) and Ukraine's Defence Innovation Ecosystem amidst the ongoing conflict with Russia (Section 4.1.2) identified that our existing exemplary models of innovation in Australia still provides the model example of staged investment through development and the benefits of mandated sovereign production for ongoing innovation and sustainment.

However, as the case study on Ukraine supports, the JORN model for project execution cannot be directly transplanted to today's technologies particularly in the current strategic context. The increasing reliance of technology edge on computing power and software-based systems – particularly as relevant to AUKUS Pillar 2 technologies, necessitates a more agile approach that allows capability to be produced faster and can be continuously innovated against equally rapidly developing counter threats.

4.7.3 Policy and Program Summary

Analysis of the SME targeted polices of our AUKUS partners, identified unavoidable disparities relevant to country scale and levels of defence spending, but also usable and achievable examples that could be applied to address many issues identified within Section 4 research findings. Lessons learned from the UK approach show that investment plans are provided to industry with sufficient detail and certainty through legislated targets and strategies per geographical industrial area that SMEs can invest and support long term work. Lessons learned from the US approach are such that the dedicated investment in innovation and particularly prioritisation of SMEs through mechanisms such as set-aside contracts ensure that SMEs survive within the industry and so can continue to provide enduring value to a sovereign supply chain.

5 THE WAY FORWARD – RECOMMENDATIONS

5.1 Introduction

The objective of the recommendations of this paper is to provide actionable and achievable advice, targeted at policy makers and government bodies with influence and responsibilities to the AUKUS partnership and Australian Defence Industry. These recommendations have been put forward with consideration of the key findings of both the literature review, case studies, foreign policy analysis and crucially the direct feedback from SMEs currently operating in the Australian Defence Industry and producing technologies of relevance to the AUKUS partnership.

With Defence industries globally facing the requirement to be more agile to respond to the threat to counter-threat cycle highlighted by our case studies in Section 4.1, the nature of these recommendations is such that they recognise the role of the SMEs is well suited to provide the innovations required at the speeds relevant for many of the technologies of relevance under AUKUS Pillar 2, but acknowledges they exist as a small part of a large industry. It is necessary then to produce recommendations that would provide more than just isolated support to SMEs but encourage a reinterpretation of how innovation can be supported by the industry as a whole. Recommendations 1 and 2 provide this larger view of recommendations to Industry, whilst Recommendations 3 and 4 address the additional targeted support required for SMEs to thrive.

5.2 Recommendation 1 – Sovereign Capability Ministry

Recommendation 1: Creation of a new Sovereign Capability Ministry to lead improved strategic coordination and encourage a return to statecraft.

Australia's strategic environment requires an immediate and substantial increase in our security projection, driven by the critical geopolitical deadline presented by the potential for conflict over Taiwan by 2027 and the ripple effect it could bring in our region. The clock is our greatest adversary in this national security challenge.

While the government's policy intentions, articulated in documents like the 2024 National Defence Strategy, correctly identify SMEs as the crucial engine of sovereign capability, a position championed by the Minister for Defence Industry, our research has the current implementation architecture is actively strangling this vital industrial sector.

The capability gap is not purely technological; it is fundamentally industrial, stemming from a failure to support our SMEs. We cannot afford to stand by while:

- Only 3% of government contracts see SME involvement in the defence sector, denying them the revenue and stability required to scale (Bradshaw et al., 2024, p. 8).
- A historical downward trend in tendered contracts persists with no safeguards or set aside programs, allowing larger Defence Primes to compete with SMEs for increasingly diminishing opportunities.
- Dominance of large Defence Primes, policy failures to facilitate effective partnerships and a defence sector otherwise prohibitively competitive to small business, forces innovative Australian SMEs to vacate the country simply to survive—taking critical sovereign knowledge and capacity with them.

To immediately arrest this industrial erosion and inject the necessary support and acceleration, we demand the urgent establishment of a Sovereign Capability Ministry (SCM). Housed within the Defence Portfolio, the SCM must be empowered to act as the single, mandated authority to revitalise the SME base.

The SCM is essential because it can:

1. Directly address the structural imbalance in industrial defence spending, creating mandated, accessible, and consistent contracting opportunities for SMEs.

2. Provide a clear, coordinating entity with the authority to ensure funding and policy filters rapidly and predictably to the SME level.

3. Be accountable for setting and meeting measurable metrics for the growth and sustainment of the SME industrial base, transforming this arm of statecraft from a policy wish into a national capability reality.

The time for fragmented policy and slow implementation is over. The SCM is the urgent operational requirement needed to secure Australia's defence industrial future.

5.3 Recommendation 2 – AUKUS Visas

Recommendation 2: Facilitate and encourage information and skills transfer through issuing of AUKUS Visas.

The successful delivery of the AUKUS security pact is fundamentally dependent on an urgent, qualitative surge in highly specialised, high-end technical personnel. Current domestic capacity and existing migration pathways are simply too slow and structurally misaligned to meet the strategic timelines of both Pillar 1 (nuclear-powered submarines) and Pillar 2 (advanced technology cooperation).

The challenge is not merely one of numbers—it is one of time and trust. Pillar 1 alone requires an estimated 20,000 direct jobs over the next three decades, demanding expertise in critical areas like nuclear engineering. Pillar 2 requires a rapid, qualitative uplift in personnel for globally scarce fields such as AI, quantum technologies, and hypersonics.

Failing to rapidly secure this talent creates a critical national security bottleneck.

Current programs, including the rebranded Skills in Demand Visa (SC482), are inadequate because they overlook the core friction point: reciprocal security clearance. While the SC482 may boast fast processing times for general skills, interviews with defence and technology partners consistently highlight the reality: slow visa approvals and security clearance delays are the primary barriers hindering trilateral integration, industry planning, and investment.

The solution is the AUKUS Visa: a mechanism of economic statecraft designed to transform talent mobility from a logistical hurdle into a strategic capability enabler.

This targeted visa would function as follows:

- Leverage Five Eyes Trust: It would utilise the high-trust environment of the Five Eyes alliance to convert the lengthy, non-reciprocal security assessment process into a streamlined administrative check.

- Accelerate Clearance: This alignment would ensure that the movement of elite scientific and engineering professionals from partner nations is not only fast but instantly strategically aligned with national security priorities.

- Governance Solution: Critically, the AUKUS Visa offers a clear governance solution that cuts across fragmented bureaucratic processes in visa and security vetting.

The AUKUS Visa is essential to:

1. Rapidly acquire cleared personnel for the most sensitive roles.

2. Provide the human infrastructure needed to build out Pillar 1's industrial base.

3. Supercharge Pillar 2's R&D efforts by overcoming global talent shortages in advanced technology domains.

Australia must adopt this strategic instrument to acquire the skills required, at the speed demanded, to deliver on AUKUS and secure our long-term strategic advantage.

5.4 Recommendation 3 – Medium Size Business Policy

Recommendation 3: Pivot government policy to improve support to Medium sized businesses with a view to the creation of Sovereign Defence Primes.

Amend existing government policy and the scope of future policies to include larger sized businesses, supporting Australian industry competitiveness internationally and enabling sustained growth of domestic based businesses.

This recommendation addresses several key issues identified for SMEs in the Australian Defence Industry. As identified through analysis of foreign industry policy under Section 6, eligibility criteria of existing programs make it difficult for SMEs to scale and compete internationally. Responses from our industry surveys attest to this and in addition identify that the structure of available programs does not adequately support R&D and innovation for SMEs.

Information sourced through the literature identified that existing policy in this area has failed to meet the desired objectives for SMEs. Australia's programs such as the Priority Industrial Capability Innovation Program (PICIP) (a venture capital model of investment between the government and the business), and the GSC program were praised, as was our export focused industrial strategy that aimed to encourage foreign firms to invest or partner with domestic firms (Holder, 2015).

Interviews conducted by our team with industry specialists in the GSC program, identified that *"failures of fiscal policy are the number one issue that affects SME growth and competitiveness internationally*". Examples given through this survey cited typical eligibility cutoffs for support programs at 200 staff in Australia. Comparison of the Australian Treasury Statistics and the US Chamber of Commerce Statistics identified the scale of the disparity as seen below in Figure 12.

Figure 12

Australia and USA SME Business Support Eligibility

AUS	USA

• **Australian Treasury Statistics:**
  • Small Business [0-19 employees]
  • Medium Business [20-199 employees]
	• **US Chamber of Commerce Statistics:**
	  • Small Business [0-500 employees]
	• Small Business Administration (SBA) will classify businesses in some industries (e.g. Engineering) with up to **1500 employees** as Small Businesses

Note. Information sourced through Australian Treasury Statistics (Commonwealth of Australia et al., 2012) and the US Chamber of Commerce Statistics (Melhorn, 2025).

Multiple surveyed Australian SMEs producing industry leading AUKUS Pillar 2 technologies reported staff numbers in excess of 200 staff meaning they no longer qualify for the grants and support schemes which as illustrated in Holder, 2015 were once viewed internationally as a strength and model example of policy support of SMEs. This comparison with the USA, supported by the US Chamber of Commerce Statistics and the eligibility tool through the Small Business Administration (SBA) website, identified that equivalent eligibility for grant support is limited at up to 1500 staff according to Industry. This provides a clear example of where an existing policy on eligibility for support fails our larger SMEs, forcing an inherent disadvantage and making it harder for SMEs to scale and stay financially competitive against their competitors.

Pivoting policy should extend beyond solely eligibility criteria. Another targeted area that will support SME innovation is ensuring existing and future support can be structured around SMEs with an R&D focus. The international policy comparison has identified under Section 4.6.3 that the USA in particular provides a model approach to this. Contrasting the approach grant funding, and most significantly contract allocation identifies areas where Australia's approach could be significantly altered.

Figure 13

AUS/USA SME Business and Funding Support Structure

AUS	USA

• **Exclusive Federal Contracts**
  • Contracts at CASG discretion up to $500,000
• **Match Funded Grant Programs**
  • Seed-Start Grant
  • DIDG Grant Program
	• **Exclusive Federal Contracts**
	  • Ensures small businesses win >23% of yearly US Federal Contract Value
	• **Fully Funded Grant Programs**
	  • America Seed Fund (SBIR/STTR)
	  • America State Trade Expansion Program (STEP)

Note. Australian exclusive contracting threshold derived from Commonwealth Procurement Rules (Gallagher, 2015). U.S. contracting statistics derived from SBA website, U.S Small Business Administration [SBA], 2025.

More again can be done by structuring existing support around SMEs with an R&D focus. As highlighted in Section 4.6, the USA provides numerous examples to leverage. Statistics cited on the SBA website identify that exclusive federal contracts are offered to ensure small business wins at least 23% of US federal

contracting dollars every year. Australia's Procurement Rules outline comparable policies in this area only allowing for exclusive contracts to be issued to SMEs below a threshold of $500,000 (Gallagher, 2015). The US also offers fully funded grant programs also allocate funding in stages across development. Equivalent programs in Australia such as the Seed-Start Grant are match funded; creating another barrier to entry where considerable upfront costs in R&D already exist.

The research has been clear as have the SMEs we surveyed in that policy shifts do not necessitate more funding or grants. What is being asked for most vehemently across industry are policies that "empower" SMEs to innovate. In line with this recommendation, what is required is a shift in understanding amongst policy makers on how policy can better support the competitiveness of larger SMEs, and when combined with more structured R&D support, can better facilitate the technologies of relevance and value to our AUKUS partners.

5.5 Recommendation 4 – Australian SME's Mandated into Contracts

Recommendation 4: Select and mandate Australian SMEs for use in Defence Contracts.

SME capabilities should be audited through suitable government departments or independent test and evaluation programs commensurate with contract size. Where minimum viable capability can be demonstrated from this process, Australian SMEs should be mandated into contract.

This recommendation targets the unique challenges for SMEs created within the environment on the Australian Defence Sector as detailed through Section 4 and presents an achievable policy recommendation with precedent. This can promote the crucial collaboration between SMEs and Primes essential to transition innovations to capability at scale as seen through the JORN case study and reduce the prohibitive costs of doing business for SMEs in the current ASDEFCON process noted as a key challenge for SMEs in the defence sector under Section 4.5.

Key recommendations of a 2024 industry white paper written in concert with the Australian British Chamber of Commerce, detailed that *"Australia must address a lack of incentivisation for primes to integrate SMEs into multi-national programs"* (PWC et al., 2023). This sentiment was mirrored through industry survey responses. Almost all SMEs expressed negative feedback on below the line partnering relationships with foreign firms, claiming little to no incentive for foreign primes to incorporate locally developed technology over other international alternatives.

The experience of surveyed SME's in partnering with Primes may be summarised in the words of one of our larger SME respondents that "existing AIC policies encourage companies to do their best endeavours but there is nothing enforceable'". This same anonymous respondent identified of major defence contracts that they had "benefited from being mandated at minimum for consideration in bids and proposals". This approach has been shown to provide value to Australian SMEs but is currently not applied consistently across Defence industry projects as a matter of first principle.

Prohibitive costs associated with bidding for projects in Australia under the ASDEFCON process have also created a market that is simply less economically viable than pursuing international alternatives. Export statistics collated from our survey respondents and detailed under Section 4.3 have created a risk to businesses being overexposed to the export market. Interviews with Industry Specialists working in the GSC program identified that export exposure in particular to the US market creates a high-risk flag in assessments of suitability to join the GSC program due to the impacts on cashflow.

Companies that cannot sustain cashflow in Australia are being driven offshore to alleviate the high cost and financial risk associated with doing business in Australia, factors which are currently exacerbated by current processes in the defence sector. Examples of capabilities lost can be readily identified. This research identified XTEK, a previously Adelaide based manufacturer producing contemporary technologies including drones and composite armour, relocated their entire manufacturing and R&D operations to the United

States citing better market opportunity (Staff Reporter, 2023). This is far from an isolated incident and according to the ACS 2025 Digital Pulse Report represents just one example of the 11,000 SMEs ventured overseas in the last two decades (ACS, 2025).

These examples and statistics supported directly by industry surveys exist in stark contrast to the previously identified strengths and goals of our export focused industrial strategies identified by Holder in 2015, suggesting that existing polices have not translated to the intended support for SMEs. Auditing SME capabilities and allocating them into suitable contracts as first principle, not only guarantees the technology partnerships between Primes and SMEs desired across industry but mitigates one of the most significant costs and barriers to entry for SMEs.

6 CONCLUSION

Australia's defence sector finds itself at a crossroads. SMEs are responsible for the majority of national innovation but remain underutilised due to structural, procedural, and cultural barriers. Comparative analysis with AUKUS partners shows that while the United States and United Kingdom have embedded SMEs into their defence ecosystems through targeted funding, legislated quotas, and streamlined processes, Australia lags significantly behind.

The opportunities within the AUKUS partnership, rapid innovative technological advances on display in the Ukraine, coupled with our own regional instability, demands bold and coordinated action. Establishing a Sovereign Capability Ministry will provide top-down coordination and enforce measurable targets, ensuring SME integration becomes a national priority rather than fragmented policy intent. Introducing AUKUS Visas will accelerate skills transfer and security-cleared workforce availability, enabling Australia to meet Pillar 1 and Pillar 2 capability timelines. Pivoting policy to nurture larger SMEs and facilitate the growth of sovereign primes will prevent the hollowing out of Australia's industrial base and bridge the gap between small innovators and large primes. Finally, mandating Australian SMEs into Defence contracts presents an achievable path to guarantee local technology development, reduce prohibitive tendering costs for SMEs, and incentivise primes to integrate domestic technology in line with our export focussed industrial strategy.

Without these interventions, Australia risks remaining a technology consumer rather than a creator, undermining its ability to deliver value on par with AUKUS partners. With decisive action, SMEs can become the cornerstone of a dynamic, sovereign industrial base driving innovation, strengthening national security, and ensuring Australia's defence future is built for speed, resilience, and strategic advantage.

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Appendix A. Survey Questions

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Opportunity to Help Shape SME Engagement in Defence – Feedback Invitation

1. From your perspective as an SME in the defence sector, what specific capabilities or innovations could Australia adopt or scale to both strengthen its global competitiveness and align with the advanced integration seen among AUKUS partners.

2. What supporting technologies would your company look to leverage to ensure the business as a whole could execute delivery of this capability or innovation for defence in a cost effective way?

3. What practical steps could Defence take to better integrate SMEs into the technology value chain, ensuring we can compete and collaborate effectively with AUKUS partners?

4. How should these steps differ, if at all, to ensure Australia can be more competitive in the Defence Global Supply Chain more broadly?

5. From your perspective, how can Australia ensure that SME-developed technologies align with — and complement — the priorities and capabilities of our AUKUS partners?

6. What are the main barriers SMEs face when trying to bring innovative technology into the Defence sector, and how could these be removed or reduced?

7. What specific types of support — funding, partnerships, procurement reform, test facilities — would make it easier for SMEs to innovate and integrate with Defence?

8. If you could recommend one policy change or program to the Department of Defence tomorrow to accelerate SME integration into the value chain, what would it be and why?

9. What support or resources have been most valuable in your defence journey (e.g., grants, training, mentoring)? Are there any programs you wish you had known about earlier?

10. What guidance would you offer SMEs considering entry into the defence sector, and what common challenges should they be aware of?

Please indicate the following information for the last financial year where possible:

Company Size	☐ 1-30	☐ 30-70	☐ 70-100	☐ >100
Export Revenue	☐ N/A	☐ 0-25%	☐ 25-50%	☐ >50%
Commercial Revenue	☐ N/A	☐ 0-25%	☐ 25-50%	☐ >50%
R&D Investment (in terms of annual revenue)	☐ N/A	☐ 0-2%	☐ 2-5%	☐ 5-10%

Consent for anonymised feedback to be included in the research paper: Y ☐ N ☐

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