Synergies for the future:

Australia–South Korea pathways in strategic defence technology cooperation

POLICY BRIEF

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Executive summary

Australia and the Republic of Korea (hereafter, South Korea) face an increasingly complex Indo-Pacific security environment in which technological competition, industrial resilience and the ability to sustain advanced military capability have become central to national security. While both countries maintain strong alliance relationships with the United States, evolving Indo-Pacific dynamics increasingly encourage cooperation among technologically capable regional powers able to complement national strengths and address structural constraints. In this context, Australia and South Korea enter the coming decade with increasingly aligned strategic outlooks, anchored in a shared commitment to preserving regional stability.

Over the past decade, Australia and South Korea have strengthened their bilateral engagement, with the relationship elevated to a Comprehensive Strategic Partnership in 2021. Defence-industrial cooperation has produced tangible outcomes, including Australia's acquisition of the South Korean-designed AS21 Redback infantry fighting vehicle. However, cooperation in advanced defence technology development remains largely program-specific rather than institutionalised, reflecting a gap between political ambition and practical collaboration.

This report argues that deeper defence-technology cooperation between Australia and South Korea represents a practical response to respective national constraints. South Korea possesses rapid development cycles and scalable manufacturing capacity but faces limitations on large-scale experimentation. Australia benefits from expansive test and evaluation environments and integration within allied innovation networks but faces challenges related to industrial scale and workforce capacity. Together, those characteristics create opportunities for cooperation across the capability life cycle—from research and prototyping to testing and validation.

The report identifies realistic pathways for incremental cooperation, including between national defence innovation programs. It concludes with recommendations to institutionalise defence technology cooperation between Australia and South Korea.

By transitioning from program-specific deals to institutionalised cooperation, Australia and South Korea can build a more resilient defence-industrial ecosystem and enhance collective deterrence in the Indo-Pacific.

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Introduction

Over the past decade, Australia and South Korea have significantly strengthened political and defence engagement, and they enter the coming decade with increasingly aligned strategic outlooks but comparatively limited experience in sustained defence-industrial integration. Consistent with the elevation of bilateral relations to a Comprehensive Strategic Partnership (CSP) in 2021[1], regular Foreign and Defence Ministers' (2+2) meetings have both continued and strengthened (Figure 1).[2] Defence-industrial cooperation has produced tangible outcomes, most notably Australia's selection of the AS21 Redback infantry fighting vehicle and the establishment of Hanwha Defence Australia's Geelong production facility, representing a significant defence-industrial partnership with a non-allied supplier.[3]

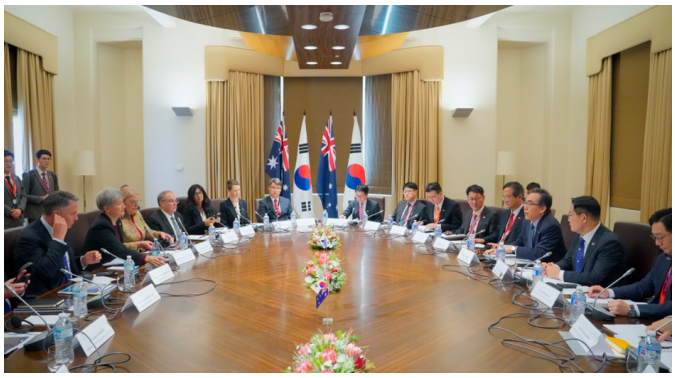
This enhanced defence partnership between Australia and South Korea is not merely due to the friendly relations between the two countries, but reflects their increasingly aligned strategic outlooks shaped by a shared assessment of the growing security challenges in the Indo-Pacific.

Australia and South Korea operate within an increasingly contested Indo-Pacific strategic environment characterised by intensifying major-power competition, rapid military modernisation and growing uncertainty surrounding the regional balance of power. While the Korean Peninsula will remain South Korea's top priority, both Australia and South Korea are focused on China's rise.

Australia's 2024 National Defence Strategy identified the present period as the most complex strategic environment since the Second World War, emphasising the growing importance of sovereign defence capability, industrial resilience and technological advantage in sustaining deterrence.[4] The 2026 National Defence Strategy, released in April 2026, reiterated those findings. The 2026 strategy ends the notion that we merely face a deteriorating environment, stating that 'the concept of deterioration is no longer adequate to describe Australia's strategic environment.'[5] Rather, the strategic environment is defined by 'fracture, rivalry and disorder' and the fastest military development in the Indo-Pacific since the Second World War. It notes that 'norms against the use of force and coercion are weakening' and 'coercion and the use of force are again becoming more prominent features of statecraft.'[6] It goes on to observe that 'nations across the globe are reaching the same conclusion, irrespective of geography, driving many that had previously deferred modernisation of major military platforms to surge investment in their own defence capabilities.'[7] These dynamics are evident in South Korea's evolving defence posture, reflected in sustained increases in defence expenditure and prioritisation of advanced, autonomous and long-range military systems.[8]

In this environment, defence innovation and industrial capacity have emerged as central strategic variables rather than secondary economic considerations. Both Australia and South Korea continue to rely on strong alliance relationships with the US.[9] But evolving regional conditions increasingly encourage technologically capable regional powers to increase cooperation with other trusted partners able to accelerate capability development and mitigate structural constraints associated with scale, geography and industrial capacity.[10]

Figure 1: Australia-South Korea 2024 Foreign and Defence Ministers' 2+2 Meeting



Source: Ministry of Foreign Affairs, Republic of Korea, online.

The security environment makes increased defence cooperation between Australia and South Korea sensible for both countries. Practical cooperation has nevertheless remained largely program-specific rather than ecosystem-level. Institutional dialogue mechanisms and industrial engagement forums have expanded steadily, yet collaboration in advanced defence technology development has progressed more slowly than the ambition reflected in official partnership statements.[11] Much of the bilateral relationship continues to centre on procurement outcomes and policy dialogue rather than sustained joint experimentation, research integration or capability co-development.

That gap reflects structural, not political limitations. While both nations share a broader strategic outlook, variations in their immediate threat priorities—alongside export—control regimes governing sensitive technologies and the absence of institutional mechanisms designed to support long-tern defence innovation collaboration-have constrained expansion beyond individual initiatives. Consequently, the defence relationship between Australia and South Korea continues to exhibit considerable unrealised potential, with political alignment advancing more rapidly than operational cooperation.

While both are Indo-Pacific nations, there are clear differences in defence innovation ecosystems driven by different threat environments. South Korea's requirement to sustain robust deterrence on the Korean Peninsula has fostered rapid development cycles and scalable manufacturing capacity supported by vertically integrated defence firms. Australia, by contrast, has developed strengths in experimentation, testing infrastructure and integration within allied research and operational networks shaped by its expansive geography and expeditionary defence

requirements, and absence of a geographically existential threat that has confronted South Korea since 1950.[12]

Together, those characteristics create opportunities for cooperation across the capability life cycle—from research and prototyping to testing, validation and sustainment—suggesting that bilateral collaboration may provide practical advantages difficult to achieve through unilateral national efforts alone.

Against this backdrop, this report examines how Australia and South Korea might progressively translate growing political alignment into practical defence-technology cooperation. The analysis focuses on existing institutional foundations, structural constraints and realistic pathways for collaboration in joint R&D, shared test and evaluation activities and defence workforce integration.

Comparative assessment of defence industrial ecosystems

South Korea

Table 1: Defence R&D budget in South Korea, by sector (₩100 million, %)

Category	2023	2024	2025	2026 (Draft)
Total defence R&D budget	51,523	47,046	49,610	59,129
Growth rate (%)	5.25	△8.69	5.45	19.19
Weapon systems R&D	15,789	14,239	14,722	20,976
Defence technology R&D	27,177	23,743	25,371	28,398
– Basic research	512	416	391	480
– Core technology development	10,400	9,491	9,687	10,522
– Future-Challenge Defence Technology	3,559	2,326	2,503	3,944
– Civil–military cooperation	1,982	691	693	963
– Rapid demonstration, etc.	10,724	10,815	12,087	12,489
Outsourced R&D operations, etc.	8,408	8,932	9,517	11,396
Force support system R&D	149	132	157	174

Source: Korean National Assembly Budget Office, online.

South Korea's defence-industrial ecosystem has evolved through sustained government investment and policy initiatives aimed at integrating advanced digital technologies into capability development. Programs such as *Defence Innovation 4.0* seek to embed artificial intelligence (AI), autonomy and data-driven systems across military modernisation efforts.[13] Reflecting those priorities, South Korea's proposed 2026 defence R&D budget includes substantial increases[14] directed towards autonomous platforms,[15] advanced sensing technologies and future operational concepts (Table 1).[16]

A defining feature of the Korean model is the relatively rapid transition between research, prototyping and production phases, supported by vertically integrated defence firms and continuously maintained production capacity enabling accelerated delivery timelines. This capability has influenced European procurement decisions, including Poland's selection of the Chunmoo system,[17] and contributed to South Korea's growing role in Europe's ongoing defence rearmament efforts.[18] Close coordination between the Agency for Defense Development (ADD) and major Korean defence primes enables iterative development processes that compress acquisition timelines. Export programs such as the K9 self-propelled howitzer[19] and FA-50 aircraft illustrate how integrated development, manufacturing and sustainment structures can enable delivery schedules that, in some cases, appear shorter than those observed in more fragmented procurement environments.[20]

South Korea's industrial model therefore prioritises scalability and production responsiveness. Vertically integrated firms maintain system design, manufacturing and life-cycle support within consolidated organisational structures, facilitating rapid adaptation to operational requirements and export demand.

Despite those strengths, structural constraints limit large-scale experimentation. Dense population distribution, restricted airspace and spectrum-management limitations complicate realistic testing of missile, hypersonic and autonomous systems.[21] Those constraints reduce opportunities for the iterative design–test cycles increasingly central to modern capability development, particularly in autonomous and networked warfare systems. As a result, access to external testing environments has become an increasingly significant factor shaping South Korea's future cooperation strategy (Figure 2).

Figure 2: Korea's key test and evaluation ranges

Source: Byron Illyes, ASPI.

Australia

Australia's defence-industrial profile presents a contrasting configuration of strengths and constraints. The country's vast territory enables access to globally significant testing environments, most notably the Woomera Range Complex, which supports experimentation involving long-range strike systems, hypersonic technologies and autonomous platforms.[22]

At the same time, Australia faces limitations in manufacturing scale and workforce availability affecting major capability programs.[23] Large-scale initiatives associated with naval shipbuilding, autonomous systems and AUKUS implementation are projected to require substantial increases in specialised engineering and technical personnel,[24] placing sustained pressure on domestic industrial capacity.[25]

Australia has mitigated those challenges through deep integration within allied defence innovation networks, including cooperation frameworks linked to AUKUS[26] and longstanding partnerships with the US,[27] the UK and Japan.[28] While those arrangements expand access to advanced technological ecosystems, they also intensify demands on Australia's domestic industrial base[29] as multiple complex programs progress concurrently.[30]

Viewed together, complementarity between Australia and South Korea emerges from asymmetry. That is, individually each nation has gaps which can be closed by working together. South Korea possesses scalable production capacity but faces experimentation constraints. Australia offers expansive testing environments and allied integration but encounters industrial-scale limitations. Cooperation across design, experimentation and validation phases therefore provides a concrete and mutually beneficial foundation for bilateral defence-technology collaboration.

Strategic pathways for deepening South Korea – Australia defence technology cooperation

Treaty-level foundations for collaboration

Effective defence-industrial cooperation involving advanced or sensitive technologies requires institutional arrangements capable of managing legal, regulatory and security risks. Although Australia and South Korea maintain expanding defence dialogue mechanisms and industrial cooperation frameworks, existing arrangements primarily support consultation and project-specific engagement rather than sustained collaboration involving classified information exchange, personnel mobility or joint technology development.

Consequently, bilateral cooperation has tended to evolve through individual acquisition programs or industrial investment initiatives rather than through enduring institutional mechanisms designed to support long-term innovation partnerships. This pattern reflects the historical evolution of the Australia–ROK relationship, which has prioritised alliance-centred cooperation and export-oriented industrial engagement rather than deeply institutionalised defence integration.

Framework arrangements such as reciprocal access agreements (RAAs) may therefore be understood as enabling mechanisms that typically emerge alongside expanding operational cooperation rather than functioning as immediate prerequisites. Australia's agreements with Japan[31] and the UK[32] illustrate how such frameworks have developed incrementally in response to growing defence interaction and practical cooperation requirements.

The absence of a comparable arrangement between Australia and South Korea doesn't necessarily indicate limited strategic alignment, but instead reflects differences in threat priorities, domestic legal considerations and sensitivities surrounding technology protection. Specifically, South Korea's defense posture remains primarily focused on deterring the acute, existential threat from North Korea (DPRK), whereas, Australia's strategic focus is oriented toward managing the long-term challenges posed by China's military expansion. Crucially, these distinct near-term priorities coexist with an increasingly aligned broader strategic consensus to maintain a rules-based order in the Indo-Pacific. Incremental cooperation in experimentation, personnel exchange and testing activities may gradually generate the institutional familiarity required for deeper forms of cooperation over time.

Joint R&D in advanced defence technologies

Beyond existing industrial cooperation, opportunities for expanded collaboration are most realistic in technology areas in which both countries pursue converging capability priorities. Cooperation in this domain is more appropriately understood as targeted collaboration focused on experimentation activities, subsystem development or jointly defined technology demonstrators rather than full platform integration.

Both Australia and South Korea increasingly identify autonomous and uncrewed systems as central components of future force design.[33] South Korea has invested extensively in crewed–uncrewed teaming and AI-enabled operational concepts, while Australia has advanced comparable initiatives through programs such as the Boeing Defence Australia MQ-28A Ghost Bat collaborative combat aircraft[34] and the Anduril Ghost Shark extra-large uncrewed undersea vehicle (Figure 3).[35]

In practical terms, cooperation could include coordinated experimentation campaigns in which autonomy software, sensing payloads or mission-system components developed in one country are evaluated within the operational environments of the other. Such arrangements would allow accelerated validation cycles while maintaining sovereign control over sensitive platform technologies.

Figure 3: Ghost Shark debuts in Australia

Source: Anduril Australia, online.

Operational lessons emerging from the war in Ukraine have reinforced the growing importance of adaptable, attritable and networked systems operating alongside high-end platforms. Both Australia and South Korea have incorporated similar lessons into force-design planning, increasing convergence in areas such as distributed sensing, autonomous teaming and uncrewed systems integration.[36]

Long-range strike technologies represent another area of overlapping interest. Australia has prioritised enhanced strike capability within its evolving deterrence posture,[37] while South Korea has pursued expanded indigenous missile capabilities following the termination of the US–ROK Missile Guidelines in 2021,[38] which removed remaining constraints on missile range and payload development.[39] Given alliance obligations and technology-control regimes, cooperation in this domain is more likely to focus on enabling activities—including modelling and simulation, materials research or coordinated testing support—rather than integrated weapons development.

Deeper bilateral cooperation could, over time and subject to demonstrated institutional trust and regulatory compatibility, position the partnership between Australia and South Korea to contribute more broadly to allied innovation ecosystems. At present, however, strengthening bilateral cooperation foundations remains a necessary precursor to any expanded collaboration associated with initiatives such as AUKUS Pillar 2.

Shared use of test and evaluation ranges

Joint research and development ultimately depends on access to realistic testing environments capable of validating emerging technologies under operational conditions. Within the Australia South Korea relationship, cooperation in test and evaluation (T&E) is one of the most practical and immediately achievable avenues for expanding defence-technology collaboration.

South Korea's geographical environment imposes constraints on large-scale experimentation. Dense population distribution, restricted airspace and spectrum-management limitations complicate realistic testing of long-range missile and hypersonic systems,[40] as well as autonomous systems.[41] Those limitations can extend development timelines by reducing opportunities for the iterative experimentation increasingly required for modern capability development.

Australia, by contrast, possesses expansive and sparsely populated testing environments, including the Woomera Range Complex and northern training areas, which support experimentation involving advanced autonomous and long-range systems (figures 4 and 5).[42] These facilities have previously supported experimentation activities involving trusted international partners, suggesting that expanded cooperation would represent an evolution of existing practice rather than a fundamentally new policy direction.[43]

Figure 4: Australia's key test and evaluation ranges

Source: Byron Illyes, ASPI.

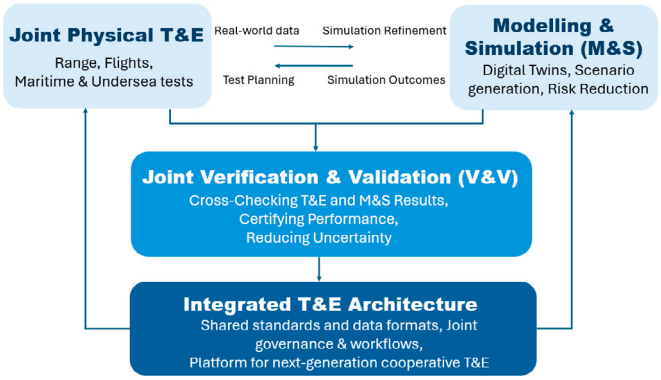
Practical cooperation could include periodic bilateral testing campaigns, coordinated experimentation windows aligned with national development programs or shared collection of non-sensitive operational data during trials. Such arrangements would allow both countries to retain sovereign control over sensitive technologies while benefiting from shared experimentation environments.

Figure 5: Bradshaw Field Training Area

Source: Marines, online.

Beyond infrastructure access, joint T&E activities can support a more integrated development cycle linking physical experimentation with modelling and simulation processes. As illustrated in Figure 6, cooperation between joint physical testing environments and shared modelling and simulation (M&S) activities enables continuous feedback between real-world operational data and simulation refinement. This iterative exchange allows participating partners to validate system performance, refine operational assumptions and identify technical limitations at earlier stages of capability development.

Figure 6: Integrated South Korea – Australia T&E reinforcement loop



Source: Authors work.

Joint verification and validation (V&V) processes play a central role in this framework by enabling cross-checking between experimental results and simulated outcomes. Early alignment of evaluation methodologies, performance metrics and certification approaches reduces uncertainty during acquisition and lowers downstream integration risks once capabilities enter operational service. Rather than functioning solely as access to testing infrastructure, coordinated T&E activities therefore contribute to the gradual development of shared standards, data practices and governance workflows.

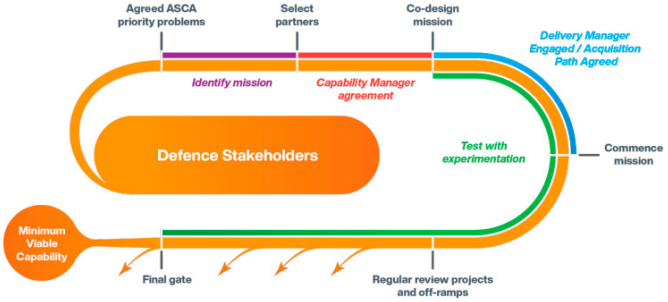
Over time, such arrangements may support the emergence of an integrated bilateral T&E architecture capable of linking defence-industrial collaboration with shared experimentation experience and mutually understood performance expectations. In this sense, cooperation in testing environments provides a practical pathway through which independently developed systems can achieve greater operational compatibility while preserving national control over sensitive technologies.

R&D program exchange and alignment

Defence innovation programs play a critical role in determining how rapidly emerging technologies transition from research concepts to deployable operational capability. Australia and South Korea maintain distinct institutional innovation systems shaped by differing strategic requirements and industrial structures. South Korea has increasingly prioritised accelerated defence R&D and rapid capability acquisition through initiatives such as *Defence Innovation 4.0*, which emphasise rapid prototyping and the timely fielding of advanced capabilities. Against this backdrop, both countries have progressively adopted mission-oriented innovation approaches[44] aimed at accelerating experimentation, reducing acquisition uncertainty and shortening capability development timelines.[45]

South Korea's layered defence R&D framework—including Core Technology Programs, Future Challenge initiatives and Rapid Demonstration projects—prioritises rapid prototyping and operational applicability through close coordination between government research institutions and defence industry partners. Australia's Advanced Strategic Capabilities Accelerator (ASCA) pursues comparable objectives through challenge-driven experimentation aligned closely with defence operational priorities, enabling early testing and validation of emerging technologies prior to formal acquisition decisions (Figure 7).[46]

Figure 7: ASCA Mission-Based Capability Development Framework



Source: ASCA, online.

The similarity in innovation philosophy creates opportunities for cooperation not through institutional integration, but through structured interaction between experimentation ecosystems. Reciprocal researcher placements between the ROK's Agency for Defense Development (ADD) and Australia's Defence Science and Technology Group (DSTG),[47] participation in joint experimentation activities and coordinated innovation streams embedded within existing defence-industry engagement mechanisms[48] could enable shared learning in areas such as rapid prototyping methodologies, experimentation governance and transition pathways from technology demonstration to operational capability adoption.[49]

Importantly, alignment at the experimentation stage allows partners to compare development approaches, testing methodologies and risk-management practices before systems mature into acquisition programs. Early-stage interaction of this kind can reduce duplication of effort, improve technology-readiness assessment processes and facilitate future collaboration by establishing institutional familiarity between innovation communities and decision-making frameworks. Evidence from allied defence innovation cooperation, including experimentation-focused initiatives associated with AUKUS Pillar 2, highlights the importance of experimentation-phase engagement in accelerating capability transition while managing technological and programmatic risk.[50]

These measures prioritise knowledge exchange and experimentation practices rather than sensitive technology transfer, allowing cooperation to expand incrementally while

strengthening institutional familiarity, mutual confidence and practical interoperability between defence innovation systems over time.

Strategic human capital integration

Sustained defence-technology cooperation ultimately depends not only on infrastructure or technological capability but also on the availability of skilled personnel capable of designing, testing and integrating advanced systems. Human capital therefore represents a critical enabling factor linking research collaboration, industrial production and operational capability development within the Australia South Korea partnership.

Australia and South Korea face distinct but complementary workforce challenges. South Korea maintains a large and technically experienced defence-industrial workforce supported by vertically integrated firms capable of sustaining production across multiple export programs.[51] Major defence companies—including Hanwha Aerospace, LIG Nex1, Hyundai Rotem and Korea Aerospace Industries—have accumulated practical experience deploying engineers and technical personnel abroad in support of long-term capability partnerships and sustainment arrangements (Table 2).[52]

Table 2: Workforce trends in major South Korean defence firms (persons, %)

	2021	2024	Growth rate
LIG Nex1	3,263	4,749	45.5%
Hanwha Aerospace	1,950	7,650	292%
Hanwha Systems	3,938	4,706	19.5%
Hyundai Rotem	3,444	4,130	19.9%

Source: 'Defense Big 3 strengthen R&D … increase employment by 1,600', *Seoul Economic Daily*, 1 May 2025, online.

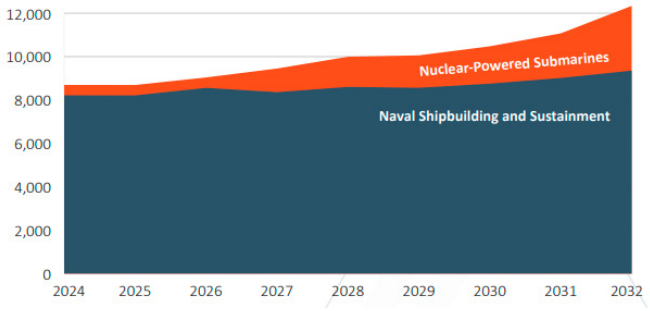
Australia, by contrast, faces growing workforce pressures associated with the simultaneous implementation of major capability programs, including naval shipbuilding, autonomous-system development and AUKUS-related initiatives (Figure 8).[53] Government assessments have identified persistent shortages in specialised engineering, systems integration and advanced technical skills required to sustain defence-industrial expansion.[54] ASPI's 2026 Cost of Defence report recognises that the '…workforce challenge larger than the sum of its parts' as without workforce, the key platforms and capabilities of the ADF can't be operated, programs can't be delivered, and Australia's strategic concept of a strategy of deterrence by denial can't be sustained.[55] It is therefore understandable that there is a sustained, multi-year investment into workforce, and in the 2026-27 defence budget, it is workforce that is the only major funding line that is growing.[56]

Personnel exchange therefore represents a practical and comparatively low-risk pathway for strengthening bilateral cooperation. Such exchanges would ideally operate on a reciprocal basis. South Korean engineers and system integrators may contribute experience derived from rapid production and export sustainment programs, while Australian researchers and defence specialists provide expertise in experimentation methodologies, systems engineering and operational integration developed through participation in allied innovation frameworks.

Cooperation associated with submarine or advanced naval capability development would necessarily remain consistent with existing export-control regimes and alliance obligations. Accordingly, collaboration is more realistically envisaged in workforce development, safety practices, industrial planning and systems-engineering methodologies rather than the transfer of controlled technologies.[57] Structured personnel exchanges in those areas could strengthen institutional familiarity while supporting long-term capability development outcomes in both countries.

Viewed collectively, human capital integration reinforces earlier cooperation pathways by enabling sustained collaboration across research, experimentation and industrial production activities.

Figure 8: Aggregated maritime workforce demand – as at June 2024



Source: Defence Department, 'Naval Shipbuilding and Sustainment Plan: evolving the enterprise, 2024, online.

Policy recommendations

Flowing from this comparative analysis of respective approaches to South Korean and Australian defence technology investment, the following recommendations are made to enhance cooperation between the two nations:

- *Institutionalise oversight:* Establish a high-level Defense Technology Steering Committee to synchronise long-term R&D priorities and acquisition cycles. This bilateral body should oversee the alignment of future capability roadmaps and streamline regulatory pathways for cross-border technology sharing.
- *Launch pilot projects:* Initiate co-development programs focusing on undersea and autonomous systems to build practical collaborative experience. Focusing initially on joint software integration or modular payload testing will allow both nations to establish trusted workflows before scaling to high-end joint hardware platforms.
- *Expand range access:* Formalise agreements for the shared use of Australian test environments to accelerate the validation of ROK-developed capabilities. Utilising facilities like the Woomera Range Complex will offer South Korea the expansive, low-density testing environments it lacks domestically, while providing Australia with early operational insights into cutting-edge systems.
- *Bridge innovation hubs:* Create a structured 'Innovation Bridge' between ASCA and DAPA to facilitate the rapid transition of commercial tech to military application. This mechanism should focus on challenge-driven joint experimentation, allowing dual-use commercial startups from both nations to pitch agile solutions for shared operational bottlenecks.
- *Formalise personnel exchange:* Develop a long-term secondment program for defence engineers and policy analysts to foster deep institutional familiarity. Placing DAPA and ADD personnel within DSTG and Australian industry hubs will effectively bridge cultural and regulatory gaps, smoothing future joint project management.

Conclusion

As established, Australia and South Korea enter the coming decade with increasingly aligned strategic outlooks—navigating their distinct near-term threat priorities through a shared commitment to regional order—but comparatively limited experience in sustained defence-industrial integration. While political engagement between the two countries has expanded significantly, practical cooperation in advanced defence technology remains at an earlier stage of development than the ambition reflected in bilateral partnership frameworks.

The first step is for both nations to recognise the gap between declared strategic alignment and operational cooperation. That will enable an assessment of the most effective areas for future collaboration. In this regard, this report has demonstrated that instead of representing a single transformative initiative, deeper defence-technology cooperation between Australia and South Korea will more likely be an incremental process through which political alignment translates into practical capability collaboration.

The analysis presented in this report suggests that cooperation across joint R&D, shared T&E activities and structured workforce exchange offers achievable mechanisms for expanding bilateral engagement. Those pathways directly address structural constraints facing both countries: South Korea's limitations in experimentation environments and Australia's challenges relating to industrial scale and workforce capacity.

Importantly, the value of cooperation lies not solely in access to infrastructure, technology or alliance networks, but in the gradual development of a bilateral capability relationship grounded in complementary strengths. Collaboration therefore has the potential to enhance resilience for both partners rather than disproportionately benefiting either side.

Defence-industrial cooperation alone will not automatically generate deterrence outcomes or regional stability. However, sustained collaboration in experimentation, capability development and innovation management can contribute over time to improved interoperability, shared operational understanding and more credible defence preparedness. In this sense, bilateral cooperation should be understood as a supporting component of broader security engagement rather than a substitute for alliance structures or operational coordination.

Progress in this domain will depend less on ambitious institutional redesign than on the steady expansion of practical cooperation activities capable of demonstrating mutual benefit and building institutional trust. Incremental collaboration—through coordinated experimentation, targeted joint innovation and reciprocal personnel exchange—has historically characterised the evolution of successful defence partnerships and may provide a sustainable pathway for Australia–ROK cooperation moving forward.

If taken up, the pathways recommended in this report will help clarify how bilateral defence-technology cooperation can realistically evolve within existing political, institutional and strategic constraints.

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Acronyms and abbreviations

ADD	Agency for Defence Development (South Korea)
AI	artificial intelligence
ASCA	Advanced Strategic Capabilities Accelerator (Australia)
AUKUS	Australia–UK–US Security Partnership
CSP	Comprehensive Strategic Partnership
DAPA	Defence Acquisition Program Administration (South Korea)
DoD	Department of Defence (Australia)
DSTG	Defence Science and Technology Group (Australia)
M&S	modelling and simulation
R&D	research and development
RAA	reciprocal access agreement
ROK	Republic of Korea
T&E	test and evaluation
V&V	verification and validation

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Yeonsoo Kim is a Junior Deputy Director at South Korea's Defense Acquisition Program Administration (DAPA). Her research interests include strategic defence industry cooperation and the evolution of cross-border innovation ecosystems. This report was produced during her research fellowship at ASPI, undertaken as part of a personnel exchange program between DAPA and ASPI.

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