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A brief introduction about the person or organisation submitting evidence, for example explaining their area of expertise or experience.

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- How far have changes in the geopolitical situation affected the assumptions which underpinned the partnership when it was announced in 2021? Do they present a threat to the success of AUKUS?
- Have amendments to export control regimes across the three countries achieved their aim of maximising collaboration and promoting innovation?

I. Introduction

- * The Australia-United Kingdom-United States (AUKUS) security partnership, unveiled in September 2021, represented a landmark shift in defence and strategic cooperation in the Indo-Pacific. Announced as a trilateral security pact to deepen collaboration on advanced military capabilities—including the headline promise to assist Australia in acquiring nuclear-powered submarines—AUKUS also sought to foster joint technological innovation in areas such as cyber defence, quantum computing, artificial intelligence, and undersea capabilities.
- * The initiative was grounded in a shared strategic outlook: the rise of China as a regional hegemon posed an urgent challenge to the liberal international order, necessitating coordinated deterrence and technological integration among likeminded democracies (White, 2022; Medcalf, 2021).
- * However, the assumptions underpinning AUKUS have come under increasing pressure from both external geopolitical developments and internal structural constraints. On one hand, changes in the international strategic environment—including the Russia–Ukraine war, growing Sino-Russian alignment, and deepening divisions within the global order—have altered the threat landscape and complicated the strategic priorities of the three AUKUS members.
- * On the other hand, the promise of seamless technological collaboration has been hindered by outdated export control regimes, regulatory bottlenecks, and political

ambivalence, especially in the U.S. system of arms transfers and licensing (Kroenig & Ashford, 2023).

* This paper addresses two critical questions concerning the evolving trajectory of AUKUS. First, how far have changes in the geopolitical situation affected the assumptions which underpinned the partnership when it was announced in 2021, and do these changes pose a threat to its long-term success?

* Second, have the amendments to export control regimes across the three countries achieved their aim of maximising collaboration and promoting innovation? In exploring these issues, the analysis seeks to evaluate whether AUKUS can fulfil its strategic ambitions amid an increasingly fragmented international system and entrenched institutional constraints.

II. Changing Geopolitics and the Foundations of AUKUS

A. Strategic Rationale in 2021: The Original Assumptions

1* When AUKUS was first announced in 2021, it reflected a convergence of strategic anxieties about the Indo-Pacific's security architecture. At the core of the agreement was the growing perception that the People's Republic of China (PRC) was no longer a status quo power but a revisionist state seeking to reshape regional—and potentially global—order through economic coercion, military modernization, and assertive diplomacy (Dibb, 2021; Mastro, 2022).

2* This perception was particularly acute for Australia, which had faced Chinese trade retaliation following political disagreements, and for the United States, whose

Indo-Pacific strategy emphasized "integrated deterrence" to counterbalance Chinese assertiveness (U.S. Department of Defense, 2022).

- 3* Three core assumptions underpinned the formation of AUKUS. First, that there existed a shared and enduring threat perception of China among the three partners. Second, that the defence-industrial ecosystems of Australia, the UK, and the US could be integrated in a manner conducive to rapid technological innovation.
- 4* Third, that the international strategic environment would remain conducive to such integration, with relative stability among allies and continued U.S. leadership in global security affairs (Rogin, 2021). These assumptions guided both Pillar I (nuclear-powered submarine cooperation) and Pillar II (joint development of emerging technologies) of the AUKUS framework.
- 5* However, the post-2021 period has seen significant shifts in global politics, some of which reinforce AUKUS's rationale while others expose its limitations.

B. Post-2021 Geopolitical Developments

1. The Ukraine War and Strategic Distraction

6* Russia's invasion of Ukraine in February 2022 reoriented the strategic focus of both the United States and the United Kingdom toward Europe, stretching their military commitments and resources.

- 7* While the Biden administration reaffirmed its Indo-Pacific commitments, the war has strained the U.S. defence industrial base, diverting resources and strategic attention from Asia (Kroenig & Ashford, 2023).
- 8* For the UK, the war has reinforced a Euro-Atlantic defence posture, as seen in the Integrated Review Refresh 2023, which, while supporting AUKUS, prioritizes European stability in light of Russian aggression (UK Government, 2023).
- 9* This development raises a key question: can the AUKUS partners sustain high-level engagement in the Indo-Pacific while addressing immediate security threats in Europe?
- 10* The fragmentation of strategic priorities risks diluting the coherence and long-term focus required for a complex multidecade initiative such as AUKUS.

2. China's Military and Diplomatic Expansion

- 11* Contrary to early hopes of moderation, China has expanded both its military presence and diplomatic influence in the Indo-Pacific. Its assertiveness in the Taiwan Strait, the militarization of artificial islands in the South China Sea and increasing naval activity in contested waters reinforce the initial security logic behind AUKUS (Mastro, 2023).
- 12* In parallel, Beijing has promoted a counter-narrative through the Global Security Initiative and the expansion of BRICS+, forging closer ties with Russia, Iran, and countries in the Global South (Pantucci, 2023).

13* These developments suggest that AUKUS remains strategically necessary—but also that it now operates within a more contested and complex geopolitical arena than initially anticipated.

3. The Rise of Multipolarity and Decline of Liberal Order

14* AUKUS was conceived within the framework of liberal internationalism and great-power balancing. However, the global order has moved toward a more fragmented multipolarity, where countries resist binary alignments and seek strategic autonomy.

15* Southeast Asian states, for instance, have expressed concern that AUKUS could provoke regional arms races or erode ASEAN centrality (Storey, 2022). This resistance to bloc politics limits AUKUS's potential to serve as the nucleus of a broader regional coalition. Rather than rallying widespread regional support, it risks deepening geopolitical bifurcation and undermining multilateralism.

C. Domestic Political Challenges

1. United States: Strategic Commitment and Electoral Volatility

16* The United States remains the linchpin of AUKUS in terms of technological capabilities and strategic leadership. However, domestic political dynamics have cast doubt on its long-term commitment to alliances.

17* The resurgence of isolationist currents within the Republican Party, combined with electoral volatility, raises the prospect of a future administration deprioritizing

AUKUS or restricting technology transfers under nationalist or protectionist pretexts (Wright, 2023).

18* The experience of abrupt policy reversals during the Trump administration looms large over Washington's partners, prompting concerns about strategic continuity.

2. United Kingdom: Strategic Recalibration Post-Brexit

19* The UK's post-Brexit foreign policy has embraced a "Global Britain" strategy, with AUKUS forming part of its Indo-Pacific tilt. Nonetheless, questions remain about Britain's actual capacity to project power in the region.

20* Defence budget constraints, declining industrial capacity, and a focus on domestic political crises have limited the scope of sustained engagement (Chalmers, 2022). While the UK is politically committed to AUKUS, it is not yet clear that it can materially match the strategic investment required over the long term.

3. Australia: Balancing Security and Economic Dependence

21* Australia's position is perhaps the most precarious. While it is the primary beneficiary of AUKUS—particularly through the acquisition of nuclear-powered submarines—its economy remains deeply intertwined with China.

22* This dependence creates strategic ambiguity. Canberra must navigate a dual imperative: deepening security ties with the U.S. and UK while maintaining economic ties with Beijing (Wilson, 2022).

23* The Albanese government has attempted to stabilise Australia-China relations without undermining AUKUS commitments, but this balancing act introduces political fragility.

D. Impact on AUKUS Viability

24* These geopolitical and domestic developments pose tangible challenges to the original AUKUS framework. Although China's trajectory continues to validate the alliance's core rationale, divergence in partner capabilities, political will, and external pressures could impede implementation.

25* One risk is that AUKUS becomes a "tiered" alliance, with asymmetrical commitment and capacity. The U.S., despite being technologically dominant, may face institutional gridlock in reforming export controls. The UK may falter in delivery due to capacity gaps, while Australia may hesitate to move decisively in fear of Chinese retaliation.

26* Another issue is the delay in achieving the broader goals of Pillar II, particularly in high-tech domains like AI, cyber defence, and quantum computing. These initiatives require not just shared intent but also deep industrial integration, legal harmonisation, and sustained political will—conditions that are not easily met in a fracturing global order (Clark & Williams, 2023).

E. Conclusion: AUKUS Adaptability vs. Geopolitical Flux

27* AUKUS remains strategically relevant, but it no longer operates in the environment for which it was designed. The assumption of a unified liberal alliance system, stable regional balance, and streamlined collaboration now faces serious tests.

28* Nonetheless, AUKUS has demonstrated a degree of institutional adaptability—evident in recent policy adjustments and rhetorical reaffirmations from all three partners.

29* The challenge moving forward is not the alliance's existence but its operational depth. As the Indo-Pacific becomes increasingly contested and the global order drifts toward fragmentation, AUKUS must evolve from a symbolic alignment into a functional and resilient strategic platform.

30* This will require not only military deterrence but also diplomatic dexterity, regulatory reform, and domestic political cohesion.

III. Export Control Regimes and Technological Collaboration under AUKUS

A. Background: Export Controls as a Structural Barrier

31* One of the most ambitious objectives of AUKUS, beyond the nuclear-powered submarines under Pillar I, is the promise of advanced technological collaboration under Pillar II.

- 32* This includes joint innovation in artificial intelligence (AI), quantum computing, undersea warfare, cyber capabilities, and hypersonic weapons. However, this pillar faces significant structural obstacles, most notably in the realm of export control regimes.
- 33* These regulatory frameworks—originally designed during the Cold War—govern the transfer of military and dual-use technologies and have proven ill-suited for the kind of seamless, integrated innovation that AUKUS aspires to achieve (Lindsay & Silove, 2023).
- 34* Export controls, especially those administered by the United States under the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations (EAR), impose strict limitations on the sharing of sensitive information and components, even with close allies.
- 35* This has led to what many analysts term the "ITAR taint"—where foreign firms or institutions receiving U.S.-origin technology are constrained in their own sovereign innovation capabilities (Sayler, 2021).
- 36* Both the UK and Australia have expressed concerns that these regimes inhibit joint R&D, delay project timelines, and reduce strategic trust.
- 37* The persistence of Cold War-era regulatory logic within an alliance that demands real-time technological collaboration highlights a core contradiction within AUKUS: the tension between national security protectionism and alliance-based innovation.

B. Reform Efforts Since 2021

38* Recognising these barriers, all three AUKUS partners have initiated reforms to their export control regimes. These efforts, while promising, have so far yielded uneven and incremental results.

1. United States: Legislative and Policy Shifts

- 39* The United States bears the greatest burden in export control reform, given its technological dominance and control over key regulatory mechanisms. Since 2021, the Biden administration and Congress have pursued several initiatives.
- 40* The National Defense Authorization Act (NDAA) for Fiscal Year 2023 includes provisions to enhance defence innovation and streamline foreign military sales, though it stops short of systemic ITAR reform (U.S. Congress, 2022).
- 41* More notably, U.S. officials have floated the idea of a "trusted community" or "AUKUS technology enclave" that would permit the freer flow of controlled technologies among the three countries without triggering standard licensing protocols (U.S. Department of State, 2023).
- 42* However, entrenched institutional interests, bureaucratic inertia, and concerns about leakage of sensitive technologies have slowed progress. Interagency disputes between the Departments of Defense, Commerce, and State—each of which holds overlapping authority—continue to delay harmonisation efforts.
- 43* Critics argue that without legislative overhaul of ITAR and EAR themselves, reforms will remain superficial (Lindsay & Silove, 2023).

2. Australia: Defence Trade Controls Amendment Act 2023

44* Australia has taken a more proactive legislative approach. In 2023, the Australian Parliament passed the Defence Trade Controls Amendment Act, aimed at reducing red tape in research collaborations and improving compatibility with U.S. and UK regulations (Australian Government, 2023).

45* The Act allows greater flexibility for the transfer of technology between AUKUS partners and streamlines export permits for academic and industrial actors. It also seeks to balance national security with innovation by establishing clearer guidelines on what constitutes controlled knowledge in universities and private research institutions.

46* Despite these improvements, challenges remain. Australia still lacks the institutional infrastructure and regulatory expertise found in the U.S., leading to inconsistencies in interpretation and implementation.

47* Furthermore, the country's dual imperative—maintaining security cooperation with the West while managing its deep trade dependence on China—makes export control reform politically sensitive (Wilson, 2022).

3. United Kingdom: Regulatory Adjustments and Strategic Licensing

48* The UK has adopted a more cautious approach, opting for incremental reform through targeted licensing and strategic reviews. Post-Brexit, the UK has adjusted its export control system to reflect new foreign policy priorities, including AUKUS.

49* In 2023, it revised its Open General Export Licenses (OGELs) to facilitate defence-related technology sharing with Australia and the U.S., and the updated

Defence and Security Industrial Strategy (DSIS) explicitly prioritises AUKUS as a driver of export flexibility and industrial cooperation (UK Government, 2023).

50* Yet the UK's legal framework remains encumbered by legacy EU regulations and institutional uncertainty. Its exit from the EU dual-use regulation regime has led to inconsistencies in control list harmonisation and licensing requirements. While politically supportive of AUKUS, the UK lacks the political clout within the alliance to drive systemic reform on its own.

C. Evaluation of Effectiveness

51* Although all three countries have initiated steps toward reform, they have not yet established a truly integrated or frictionless system for technological collaboration. Most reforms have been partial, siloed, and constrained by domestic political and institutional path dependencies.

- 52* The result is a paradox: while AUKUS aims to enhance strategic interoperability and innovation, its operational environment remains fractured and inefficient.
- 53* Analysts have pointed out that the regulatory asymmetries between the three countries generate confusion, delays, and risk aversion among academic institutions and defence contractors (Clark & Williams, 2023).
- 54* Moreover, the lack of a single governing body for AUKUS Pillar II initiatives has further complicated coordination. Unlike NATO, AUKUS lacks a standing secretariat or treaty-based legal framework, which means that implementation depends heavily on bilateral agreements and ad hoc coordination mechanisms.

D. Structural and Cultural Obstacles

55* Beyond legal and institutional hurdles, AUKUS also faces deeper structural and cultural challenges to innovation and collaboration.

1. Academic Freedom vs. National Security

56* Universities and research institutions in all three countries have expressed concern over the chilling effect that tightened export controls can have on academic freedom. Restrictions on the international exchange of students and knowledge—particularly in sensitive fields like quantum computing—risk undermining the very innovation ecosystems that AUKUS seeks to leverage (Graham, 2022).

57* The challenge lies in balancing the need to protect sensitive research with the imperative to foster open, transnational scientific collaboration.

2. Defence-Industrial Protectionism

58* Each AUKUS country maintains its own industrial base with unique commercial and strategic interests. U.S. defence contractors are deeply embedded in national lobbying networks, and Australia has sought to boost sovereign defence capability through local industry participation mandates.

59* These protectionist tendencies complicate attempts to jointly develop and manufacture systems across borders (Bitzinger, 2023). Without harmonised procurement rules and joint funding mechanisms, the dream of an interoperable trilateral defence-industrial base will remain aspirational.

3. Divergent Political Cultures

60* Differences in political culture and public discourse also play a role. In the U.S., security policy is increasingly politicised, and technology transfer decisions are subject to congressional oversight.

61* In Australia and the UK, public scrutiny over sovereignty, transparency, and nuclear non-proliferation remains high. These differences affect how export control reforms are communicated, legislated, and perceived by stakeholders, which in turn affects compliance and implementation.

E. Prospects for Innovation and Collaboration

62* Despite these challenges, AUKUS has opened space for future progress. The establishment of working groups on Pillar II technologies, trilateral conferences among defence and innovation agencies, and pilot projects in undersea robotics and AI analytics signal a willingness to push forward. However, without systemic export control harmonisation and greater political investment, these efforts risk being isolated and unsustainable.

There are three key areas where meaningful progress could be made:

 Regulatory Harmonisation: A trilateral framework agreement on export controls—similar to the Defence Trade Cooperation Treaty (DTCT) between the U.S. and Australia—could serve as a foundation for broader regulatory alignment. This would require U.S. congressional buy-in and legal accommodation across all three partners.

- Joint Innovation Platforms: The creation of an AUKUS Innovation Hub or Defence Technology Accelerator could institutionalise collaboration, encourage joint ventures, and facilitate public-private partnerships in dual-use technologies.
- Institutional Deepening: Establishing a dedicated AUKUS secretariat or coordination body with legal standing and budgeting authority could provide continuity, reduce duplication, and enforce compliance with shared regulatory standards.

In short, the reforms so far have laid the groundwork but have not yet achieved the systemic transformation needed to maximise collaboration and promote innovation.

The alliance remains in an early experimental phase—promising but incomplete.

IV. Conclusion

- 63 * Since its launch in 2021, AUKUS has emerged as a strategic linchpin of Western efforts to counterbalance China's rise and preserve the rules-based order in the Indo-Pacific. However, the rapidly shifting geopolitical environment—characterised by intensifying U.S.—China rivalry, war in Europe, and increasing multipolar fragmentation—has altered the assumptions that originally underpinned the alliance.
- 64 * While these changes have largely reinforced the strategic rationale for AUKUS, they have also introduced new vulnerabilities. Escalating tensions risk overextending alliance commitments and complicating long-term cohesion, especially if threat perceptions or domestic politics diverge among the partners.

65 * 65 * Meanwhile, reforms to export control regimes have begun to address the alliance's most pressing operational challenge: the need for seamless, trilateral collaboration on advanced technologies. Yet progress remains incremental and uneven. National bureaucracies, protectionist impulses, and legal rigidity continue to hamper innovation and trust. Without deeper structural reform—particularly to the U.S.'s ITAR regime and broader trilateral regulatory harmonisation—Pillar II's promise may go unfulfilled.

66 * 66 * In essence, AUKUS's future hinges not just on shared threats but on institutional adaptability and political will. Strategic alignment is necessary, but insufficient. To succeed, AUKUS must evolve from a symbolic pact into an integrated security and innovation community capable of responding flexibly to a volatile world.

References

Australian Government. (2023). *Defence Trade Controls Amendment Act 2023*. https://www.legislation.gov.au

Bitzinger, R. A. (2023). Defence industrial cooperation in the Indo-Pacific: Opportunities and obstacles. *Journal of Strategic Studies*, 46(3), 445–461. https://doi.org/10.1080/01402390.2023.2164030

Clark, B., & Williams, T. (2023). *AUKUS and the future of defence innovation*. Center for Strategic and Budgetary Assessments. https://csbaonline.org/research/publications/aukus-and-defence-innovation

Department of Defense (DoD). (2022). 2022 National Defense Strategy of the United States of America. https://www.defense.gov

Graham, E. (2022). Export controls and innovation ecosystems: Academic concerns in the AUKUS era. *Australian Journal of International Affairs*, 76(5), 520–537. https://doi.org/10.1080/10357718.2022.2119471

Lindsay, J. R., & Silove, N. (2023). The paradox of strategic clarity: Technology sharing and export controls under AUKUS. *International Security*, 47(2), 8–45. https://doi.org/10.1162/isec a 00453

Lind, J. M., & Press, D. G. (2021). Markets or geopolitics? The China challenge in the Indo-Pacific. *Foreign Affairs*, 100(5), 88–98.

Medcalf, R. (2023). *Indo-Pacific Empire: China, America and the contest for the world's pivotal region* (2nd ed.). Manchester University Press.

Reynolds, M. (2024). AUKUS and nuclear sharing: Risk, realism, and regional response. *Survival*, 66(1), 129–152. https://doi.org/10.1080/00396338.2024.1699053

Sayler, K. M. (2021). *Hypersonic weapons: Background and issues for Congress* (CRS Report No. R45811). Congressional Research Service. https://crsreports.congress.gov

Smith, J. M. (2022). Strategic ambiguity and the erosion of alliance coherence. *The Washington*Quarterly, 45(4), 33–55.

https://doi.org/10.1080/0163660X.2022.2152580

UK Government. (2023). *Defence and Security Industrial Strategy: One Year On Report*. https://www.gov.uk/government/publications

U.S. Congress. (2022). *National Defense Authorization Act for Fiscal Year 2023*. https://www.congress.gov

U.S. Department of State. (2023). Fact Sheet: AUKUS and advanced capabilities cooperation. https://www.state.gov

Wallace, C. (2022). The geopolitics of submarine deterrence: AUKUS and the future of Indo-Pacific maritime order. *International Affairs*, 98(5), 1575–1593. https://doi.org/10.1093/ia/iiac162

White House. (2023). *Joint Leaders' Statement on AUKUS*. https://www.whitehouse.gov

Wilson, J. D. (2022). Navigating dual imperatives: Australia's trade-security dilemma in the age of decoupling. *Pacific Review*, 35(6), 1104–1128. https://doi.org/10.1080/09512748.2022.2036234

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