So far, we have more questions than answers about AUKUS. This applies both to the new challenges to and opportunities for alliance co-operation that AUKUS presents, but also to past efforts to bypass or disassemble long-standing obstacles to defence industrial-technology co-operation, let alone integration, within the Australia-United States alliance.

Based on my reading of AUKUS-related developments and conversations with officials and experts, there are five points that I think are worth raising about AUKUS one year after its inception.

**Point One: AUKUS is Not Yet a Game-Changer**

AUKUS is a useful signal, but for all the positive steps that Australia, the United Kingdom, and the United States have taken so far, AUKUS is not a game-changer. In fact, it “is” very little right now, at least if we talk in terms of tangibles that most of us are allowed to see. There are quite difficult conversations that need to be had and complex processes that need to be navigated. Yet progress has been made on the submarine front – especially the signing of an information-sharing agreement on nuclear propulsion technologies.

**AUKUS as empowerment**

In fact, such developments tell a very positive story about the direction of America's overall approach to upgrading its key regional alliances. The combination of information-sharing and capability-building that AUKUS is intended to deliver is perhaps among the best examples of the Biden administration's willingness to empower America's close allies and partners to meet their own security needs and, simultaneously, to be better defence partners for the United States (Townshend and Corben 2021).

This empowerment has two distinct "types of kind" or pathways, a two-step approach to alliance modernisation in the Indo-Pacific (Corben and Lee 2022).

The first kind involves “stepping out” of the way of allies helping themselves. This has involved removing often outdated Cold War era regulations or restrictions designed to influence, or outright block, how allies and partners develop, procure, and/or use certain kinds of military capabilities. In other words, the Biden administration is taking a more ‘hands-off’ approach to allied and partner force structure decision-making. The best example of this in the Indo-Pacific is the decision to remove the last vestiges of the 1979 United States-Korea Ballistic Missile Guidelines.

The second, much more difficult, type of empowerment involves “stepping in” to help allies and partners access advanced defence technologies and platforms and to streamline co-operation on future capabilities, usually through existing mechanisms or frameworks designed for this purpose.

"Empowerment type two" is the most relevant for Australia. Indeed, AUKUS is the best example of this approach to date. Aside from supporting Australian submarine procurement, AUKUS also is intended to foster trilateral co-operation on a wider range of defence science and technology, industrial, and capability development projects. This, of course, was possible before AUKUS came into being, but the signals we can see here and elsewhere in the region (e.g. Japan) suggest that America is at least cognisant that it cannot retain its military technological edge on its own. In that sense, AUKUS dovetails with efforts to expand bilateral and trilateral alliance co-operation through the United States National Technology and Industrial Base (NTIB).

Well, dovetails? Or subsumes? Because as one of its chief architects remarked to me recently, the NTIB has failed to deliver on its promise of greater integration and access for top-tier allies to critical United States...
industrial-technological inputs and outputs. AUKUS has not changed that simply by coming into being.

**Intention versus delivery**

This word “promise” brings me back to the semantics of what AUKUS “is” versus what it ought to be, or what any of the parties involved believe it is intended to achieve. AUKUS “is” not much of anything other than good intentions at this point, because much of the commentary over the last year has chosen to frame AUKUS “as” something which it has not yet proven to be. “Game-changers” can only be called as such once they have meaningfully changed the game.

Saying that AUKUS “is” a technological accelerator, an industrial integrator, a commercial agreement, a vessel for delivering advanced American capabilities to Australia at higher speed, or anything to that effect will only be true after it is self-evident. AUKUS still has a long way to go to reach its potential in any of the ways that informed observers speak and think about its future. We cannot afford to be complacent, nor to underestimate the barriers that remain to its eventual success.

**Point Two: America Trusts Australia with its Secrets**

Initial advances through AUKUS show that the United States really does trust Australia with its most protected secrets. The implication is that when the “trust issue” next surfaces in the context of Alliance technology-sharing initiatives, it should be treated as the red herring that it is.

**Contradiction of Five Eyes versus technology sharing**

In years gone by, American officials have frequently balked at the idea of sharing their country’s most sensitive military-technological secrets with even the closest of allies like Australia, worrying about insufficiencies or inadequacies for the protection of advanced defence technological intellectual property, among other concerns.

Part of this stems from what Townshend et al. (2019) called a “superpower mindset” or culture. This has compelled the United States to protect these secrets not only for the sake of its own military-technological edge over would-be adversaries, but also for the Cold War era purposes of conflict mitigation and minimisation – including by restricting allies’ access to said technologies in the interests of regional stability.

At the same time, America has long shared sensitive intelligence with Australia through the Five Eyes arrangement. And we are now one of only two countries to share in the secrets of United States-origin nuclear propulsion technology, which is a major coup for Australia.

Further, we operate many other advanced United States-origin military systems – F-35A Joint Strike Fighters, P-8A Poseidons, MQ-4C Tritons, and more – in a part of the world where the risks of miscalculation and, potentially, armed confrontation have grown significantly; with the implication that defence industrial-technological secrets could be lost in the event of a mishap in international or foreign waters. To illustrate, in 2016 a United States Navy unmanned underwater vehicle was seized by China in the South China Sea, and was returned days later only once it had been disassembled and, presumably, reverse engineered.

There is recognition in America that, in the current strategic environment, this trust contradiction is no longer sustainable. Indeed, it is not uncommon to hear officials stress that whatever it is that Australia asks for from the United States, we have almost inevitably received, and this is true.

On the other hand, this trust contradiction is to say nothing of the leakiness of the United States’ own defence industrial complex when it comes to industrial espionage and regulation. In October 2022, Cadell and Nakashima (2022) reported that a wide range of the Chinese People’s Liberation Army (PLA) military research organisations had been acquiring troves of advanced American software products with dual-use applications to fill critical gaps in the PLA’s own weapons programmes: more that 300 sales of things like aeronautical engineering software from around 50 companies since 2019. These software products were produced by American companies whose research had been funded by millions, if not billions, of Pentagon dollars. The Export Control Reform Act of 2018 and accounting obligations for American firms notwithstanding, contract solicitation and award documents show that these technologies made their way into the hands of the Chinese Academy of Aerospace Aerodynamics (CAAA) through resales and front company activity. CAAA was instrumental in the design of China’s 2021 hypersonic missile test, the one framed by the Chairman of the United States Joint Chiefs of Staff, General Mark Milley, as a “Sputnik’ moment.”

If there is any ‘smartening up’ to be done regarding the protection of industrial intelligence and technological secrets, it is by all sides, not just the junior alliance partner. It should not be incumbent on Australia, time and again, to have to stress our trustworthiness to the United States. This should be about all sides working together to identify a select range of technologies and their critical inputs that require extra protection, to work together to ensure that the protections for these technologies are appropriately robust, but also to ensure that our efforts to protect these inputs do not compromise our efforts to foster more seamless co-operation amongst a trusted community. We need protections on all sides of the ponds (the Atlantic and Pacific alike) to share and protect technologies in the way that we hope to be enabled by AUKUS.

**Point Three: AUKUS Pillar II is more critical than AUKUS Pillar I**

I believe that AUKUS Pillar I, the submarines, will almost certainly work out, in the sense that we will, eventually, get our full complement. But there is no guarantee that they will be the dominant military platform of their kind in the oceans of the Indo-Pacific by the time we have the full complement online. Hence, with its emphasis on delivering both near-term capabilities and building advantages in technology that will define the
battlespace in the years ahead, Pillar II is the more critical of the two.

It is no small thing for the United States to have given Australia access to the crown jewels of its defence technological treasure trove, and at such speed from announcement to signature. But it is precisely the fact that, Washington has done this before that gives me enough confidence that Australia’s fleet of nuclear-powered attack submarines (SSNs) will eventually come into the service of the Royal Australian Navy (RAN).

What is less clear is the kind of operational, let alone strategic, environment in which these boats will take to the water. Lee (2022) considered “AUKUS will ultimately be judged by whether the submarine endeavour succeeds or fails”, but that 2050 “is a long way into the future to base defence planning: a completely different world in many respects”.

To give a sense of the timelines involved, Dr Lee wrote that “the time before the last Australian SSN is commissioned will be similar to the time just elapsed between the present and the Hawke government’s Defence White Paper of 1987”. Then, the United States was undisputedly the dominant military power in Asia, China was in the midst of its emergence after years of internal strife, and India’s economy was on par with Australia’s. In short, “(t)hirty-five years later, the strategic environment is radically different”. By 2050, what might well be “legacy” systems like surface ships, combat aircraft, and armoured vehicles “will have either been made redundant or reimagined to work alongside artificial intelligence and unmanned systems … This is the world in which the AUKUS partnership must be able to deliver nuclear-powered submarines that advance Defence’s strategic objectives”, which themselves may evolve over time.

Pillar II developments will impact Pillar I

The pace of change in the anti-submarine warfare enterprise will be of particular interest, especially given the proliferation of unmanned systems above and below the water’s surface, and in the skies above. One only need look to the extra-large autonomous underwater vehicles being produced by Anduril, or recent efforts to modify small- and medium-sized unmanned aerial vehicles for sonobuoy deployments to see how unmanned systems will pose more persistent challenges to even the stealthiest of submarines.

Developments in artificial intelligence and quantum computing also could offer practitioners far more sophisticated tools for locating and targeting submarines and other sub-surface vessels with greater precision than is currently possible.

This is not to suggest that submarines will not be useful military platforms: much like the future strategic environment, it is hard to predict exactly how emerging technologies will develop, or whether they will deliver in the ways that we are often promised they will. But we cannot know for certain that the dominance that is frequently attributed to submarines today will hold true between now and 2050; hence we cannot rely on the delivery of AUKUS Pillar II to deliver what Australia needs, not just before 2027, but out to 2050. And in that sense, it is no coincidence that artificial intelligence, quantum, and unmanned systems all appear on the advanced capabilities list.

Point Four: Legal, Policy and Regulatory Hurdles Remain

We are already encountering the same legal, policy, and regulatory hurdles to defence technology and industrial collaboration that we have dealt with for the last several decades. We do not yet have the optimal architecture to facilitate co-operation at the speed of relevance. Without this, there is a risk that AUKUS might ‘accelerate’, but it will not necessarily diversify or multiply in the way that we hope.

The ITAR problem

The hurdles I am largely referring to are the International Trafficking in Arms Regulations (or ITAR) which govern exports of defence equipment and technologies, as well as the Export Administration Regulations (EAR) which cover potential or verified dual-use equivalents.

The ITAR problem is two-fold, perhaps three-fold, for Australia (see Thomas-Noone 2019):

1. ITAR does not discriminate between allies and other generic recipients of United States military sales (meaning that Australia is treated equal to a country like Latvia).
2. ITAR is “extraterritorial” in its application, meaning that if knowledge or a product is labelled under ITAR at the research and development stage (through the involvement or design input of an American person or entity anywhere in the world) it is controlled under United States defence export controls through its entire product life-cycle, permanently.
3. The “taint” is not limited to defence technologies. It is further fragmented by dual-use items, which are administrated by the U.S. Department of Commerce through the EAR) and include technologies as diverse as propulsion systems to micro-organisms. According to experts like Dr William Greenwalt, former U.S. deputy undersecretary of defence for industrial policy, this means that dual-use (and unclassified) technologies are generally more at risk of ITAR taint than those that are classified.

To illustrate: the way ITAR rules and regulations currently work, it would only take a United States engineer deciding that they wanted red, rather than blue, hubcaps on their Australian-made teaming unmanned aerial vehicle – for example – for this to become “ITAR incumbent” and therefore subject to often arduous and repetitive application processes.

The limits of political buy-in

It is not that relevant parts of the United States system do not recognise the problem. As Secretary Lloyd
Austin’s foreword in the recently released National Defense Strategy stated, “business as usual at the Department [of Defense] is no longer acceptable”. At the time of its announcement, my colleagues and I believed that Biden’s embrace of AUKUS on prime-time television signalled “presidential support for empowering close allies through defence industry co-operation”—including the necessary attendant reforms to export controls that needed to be made (Corben et al. 2021). And the solicitation of input from Australia on the nature and location of these problems within the United States system, and what to do about them, has been a welcome development. But the reality is that, one year into AUKUS, even with executive level buy-in to the concept from day one, Australia finds itself bumping up against the same roadblocks.

Unfortunately, it seems this signal was not enough to galvanise the system into action — namely, the State Department, where most of the regulatory, political, and culture barriers to export control reform seem to reside. In short, an unreformed United States defence export control regime is one of the biggest barriers to alliance integration, whether through the National Technology and Industrial Base (NTIB) or AUKUS.

Indeed, the barriers remain much the same as those identified by Thomas-Noone (2019): “bureaucratic fragmentation, failure to treat trusted allies differently from other partners, and leaders’ reluctance to attempt politically costly reform”. These barriers all remain today.

And as Dr Bill Greenwalt — who was also a chief architect of the NTIB reform that saw Australia added to the U.S. Defense Industrial Base (DIB) — noted more recently; “AUKUS as a concept may be dead in the water until ITAR is addressed and reformed” (Greenwalt 2022).

What to do for AUKUS?

So, what to do for AUKUS? It really depends on the nature of the reforms within the American system that Australia seeks to achieve, on what timeline, and at what depth.

If this is simply about accelerating and streamlining processes through which Australia acquires advanced military capabilities from the United States; perhaps expanding that enterprise to encompass maintaining, sustaining, and perhaps even manufacturing specific components of capabilities — or niche capabilities themselves — in this country; and if we accept the same level of ITAR taint but in exchange for a process that works faster … then I have greater confidence that we can work most of this out with Washington in a reasonably short timeframe.

If this is the ask — light touches to the system to give Australia greater preferential treatment without a major restructure — then I am fairly certain the submarines will work out. America knows what it is giving away, and it has some idea of what it means to let a close ally “into the tent” or “peak under the hood”. Accelerating delivery through what I might refer to as “positive discrimination” and some deeper level of industrial integration through supply chain distribution are arguably easier for the United States to countenance, perhaps because there is scope for it to remain the undisputed senior partner in control of the intellectual property and its end-use.

If, however, Australia’s goal is to secure reforms to allow America, Australia and Britain to pool their engineering, science and technology resources to develop the next generation of defence capabilities together from step one, or from having what Ashley Townshend has referred to as the ‘shared Google Doc’ model for collaboration, then this is a far bigger ask that will probably require more widespread reform. This is, to me, quite clearly the biggest hurdle when it comes to realising AUKUS Pillar II in the way that I think most in Australia think of it.

Failing this more widespread reform, I fear that while AUKUS might end up accelerating some capabilities for Australia, our ability to innovate collectively will remain highly constrained, and we will be unable to do so at the speed of relevance, without navigating reams of regulations, or without allowing non-American companies to retain their valuable intellectual property.

In either case, the key variable is speed. Whether it is acquiring known capabilities from America or designing new ones from scratch, we need to move faster.

Point Five: Australian Sovereignty

The ITAR problem also means that Australia needs to do some serious thinking about what sovereignty actually looks like through AUKUS, and through the upgraded United States alliance more broadly, when it comes to defence industry and technology co-operation. How Australia defines “sovereignty” will determine whether we seek to use AUKUS as a battering ram or a surgical scalpel when it comes to Alliance management, particularly the export control reform issue, on-shoring production for priority capabilities, and protecting Australian intellectual property.

Sovereignty is not a conceptual blanket for Australia to throw over AUKUS writ large. It is not a black-and-white proposition. AUKUS notwithstanding, Australia remains in a situation where the best we can hope for is “bounded” or “selective” sovereignty. Australia will never be able to do everything on its own when it comes to developing, producing, and maintaining most of its high-end defence capabilities. It therefore falls to questions of the degree of integration with the United States that we seek and, by extension, the degree of sovereignty that we are willing to give up as much as that which we seek to secure.

It flows that it is incumbent on us to know which parts of the various defence supply chains or innovation networks in which Australia has substantial equities are worthy of investment — financially and politically — to make them a reality in this country. The previous and current governments in Australia already know this. Defence Minister Richard Marles, during his visit to the United States in 2022, stressed on multiple occasions that Australia’s intention is to supplement the United States defence industrial base and its critical supply chains, not to replace or compete with them.
The government is not looking to reinvent the wheel when it comes to the US–Australia defence integration programme (Corben 2022). Rather, its message has been that the wheel needs to spin faster, and that this is not just about maximising benefits for Australia. In that sense, the alliance’s defence industrial and technological integration initiatives are closely tied to the expanded force posture initiatives announced at AUSMIN in 2021, particularly the combined logistics, sustainment, and maintenance enterprise to support high-end warfighting and combined military operations in the region.

This, too, is intended to better integrate Australian and United States defence forces, but also raises questions and concerns around Australian sovereignty, especially for the layman, because the sight of American bombers or marines operating from Australian shores is far more tangible for most Australians than obscure debates about supply chains and technological intellectual property.

But in both cases, knowing exactly what degree of sovereignty Australia seeks over different capabilities or inputs into a shared defence industrial ecosystem will be crucial if we are to maximise our efficiencies and ask for the right things, at the right time, and for the right return, from the United States.

Even if we have an overarching concept like “bounded sovereignty” in mind, it is likely that the sovereignty equation will vary from capability to capability. Take the submarines: does sovereignty look like building these boats here in their entirety, minus the reactors? Does it look like maintaining these vessels exclusively in Australia after they are built? Does it look like manufacturing and supplying all the armaments or supporting capabilities (including the XLAUVs) by ourselves without American help? Can ITAR be streamlined enough to make any of this tenable?

What about advanced capabilities? Does sovereignty mean the head-to-toe development of hypersonic or counter-hypersonic capabilities here in Australia? What about things like Loyal Wingman? What about intangibles like artificial intelligence and software applications, quantum capabilities, etc.? These are not easy questions, though they are questions that the United States Studies Centre will be seeking to address in 2023.

Conclusion

One year on, while AUKUS is not yet a game-changer, it is clear that America is prepared to trust Australia with its most protected defence industrial secrets. The technologies developed under AUKUS Pillar II, like artificial intelligence, will be more critical, particularly in the medium term, than the submarines developed under AUKUS Pillar I. Regardless, legal, policy and regulatory hurdles to co-operation between Australia and America remain and may constrain the rate of progress. Further, the extent to which Australia wishes to achieve defence industrial self-reliance and retain sovereignty of intellectual property remains to be resolved.

The Author

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References


1AUSMIN: Australia-United States Ministerial Consultations normally held annually between Australia’s defence and foreign affairs ministers and their United States counterparts.

1Loyal Wingman: a stealth, multi-role unmanned aerial vehicle in development by Boeing Australia for the RAAF.