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Framing International Partnerships in Future Force Transformation

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Abstract

In today's rapidly evolving security and technological landscape, future force transformation is an increasing challenge. Considering the interplay between conflicting geopolitical dynamics and the need to adopt emerging technologies, military forces adapt by embracing multinational cooperation as a core strategy for future force development. Multinational military collaboration allows states to pool resources, share technological innovations, and enhance the interoperability of their forces, creating a stronger and more agile collective defense posture. In an era of constrained defense budgets and increasingly complex technological requirements, cooperation is an increasingly attractive option for force development. As military alliances deepen and coalitions form to address common threats, the ability to operate seamlessly with partners will be critical to future military success. This paper explores the vital role of multinational military cooperation in shaping tomorrow's forces, addressing both the opportunities it offers and the challenges it poses for sustainable, long-term force development.

International Partnerships and Diffusion in Military Power

In his masterpiece on strategy, Sir Lawrence Freedman argues that three fundamental strategic behaviors can be encountered regardless of time and place: the instrumental use of violence, the capacity for deception, and the search for allies and partners to augment power (Freedman, 2013). Alliances and partnerships are an imperative feature of military affairs, playing a critical role in the diffusion of military power worldwide. Partnerships between militaries may take the form of alliances, established as a permanent security agreement, or coalitions created as ad hoc arrangements to counter a specific threat whose lifespan, in principle, does not exceed the time required to deal with that threat (Weitsman, 2013). While alliances and coalitions explicitly focus on the potential use of force, other forms of international partnerships between militaries exist, most notably security cooperation and security force assistance (SFA). Security cooperation refers to a diversity of frameworks that do not necessarily amount to a mutual defense commitment like in the case of an alliance. Because of their *ad hoc* nature, security partnerships can take a multiplicity of forms and the diffusion of military power in such formats can occur through various mechanisms: knowledge transfers, joint military exercises, and joint industrial projects being the most prominent. Finally, SFA encompasses diverse activities, including training, mentoring, advising, and equipment programs, fundamentally being concerned with facilitating the transfer of knowledge and expertise among partners.

In each of these partnership models, institutional settings are critical because they shape the patterns of diffusion, which in turn shape the dynamics of force transformations. The two major military alliances of the post-World War II era illustrate how diffusion operates depending on dynamics. The USSR adopted an authoritarian model of managing its allies early on, imposing subordination to the war plans determined by the Soviet General Staff. As a liberal alliance, NATO solved the integration challenge differently, leaving states in control of their defense policies but creating common standards to build interoperability (Béraud-Sudreau and Schmitt, 2024). Similarly, coalitions facilitate diffusion as military organizations learn from each other, including by observing the employment of specific technologies or systems, and practices such as tactics, techniques, and procedures (TTPs) to execute operational goals and missions. There are numerous examples of diffusion in this way, from the circulation of practices between the French, British, and American allies during World War I (Greenhalg 2005) to the “selective emulation” of U.S. practices by NATO allies in Afghanistan (Schmitt, 2017).

Security cooperation is another important form of military diffusion. In recent years, both AUKUS and the Quadrilateral Security Dialogue (or “Quad”) have emerged as important frameworks of international security cooperation. AUKUS is a trilateral security partnership between Australia, the United Kingdom, and the U.S., based on two pillars: Pillar 1 focuses on Australia acquiring nuclear-powered attack submarines and the rotational basing of U.S. and UK nuclear-powered attack submarines in Australia; Pillar 2 entails the collaborative development of advanced capabilities in six

technological areas, including undersea capabilities, quantum technologies, artificial intelligence and autonomy, advanced cyber, hypersonic and counter-hypersonic capabilities, and electronic warfare.

The "Quad", which brings together Australia, India, Japan, and the U.S. is primarily aimed at safeguarding the autonomy of the Indo-Pacific nations with a wide-ranging focus that includescritical and emerging technology, cybersecurity, disaster relief, space, maritime security, countering disinformation, and counterterrorism. Quad nations have been conducting a yearly naval military exercise called "Malabar," which started in 1992 as a bilateral U.S.-India exercise but has since expanded. However, while it is tempting to view "Malabar" as the Quad's de facto military exercise, the two endeavors are not institutionally related (Triglavcanin, 2023),although there is some degree of overlapwith the Quad's Indo-Pacific Partnership for Maritime Domain Awareness, so the Quad format feeds into greater military cooperation.

Finally, SFA, which can take numerous forms (Kennedy 2020), such as instructional detachment, the provision of experts, an offer of training in the host nation's military schools, or an invitation to participate in national military courses, is also an important vehicle for diffusion, with varying degrees of success depending on the absorption capacity of recipients and the program design. However, partnerships based on SFA also confront several challenges. SFA programs can quickly suffer from a misalignment of interests between providers and recipient partners. SFA can sometimes be disconnected from partner needs when a "one size fits all" design does not effectively support local requirements. Considering the cost-intensive nature of military acquisition today, significant upfront costs in time, money, and effort must be weighed and committed. However, a classic problem with SFA has been recipients of the support being unable to sustain capabilities when a sponsor exits the program because it is too costly to maintain or because it cannot be maintained without continuous support for other technical or political reasons. Another critical lesson learned over the past two decades is that building a military organization or a capability nearly from scratch presents enormous challenges, often leaving the recipient at risk of being unable to function independently.

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Strategic Dilemmas

To make international partnerships work better to support force transformation, senior partners in multinational frameworks must be willing to invest sufficient time and attention. Setting realistic goals and shaping force development in ways that strategically align expectations and needs with appropriate and sustainable solutions is essential. Still, building successful international partnerships

in the military sphere is no straightforward process. Firstly, a strategic dilemma is posed by the inherent tension between the political preference for autonomy and the practical demands of the threat landscape, which places a premium on deeper military integration between allies and partners (Schmitt, 2018). Military integration tends to clash with the traditional behavior of states to secure autonomy as a political objective. These conflicting pursuits become more acute in future warfare paradigms where integrating national assets within a multinational structure would imply allies and partners can use and even exert some level of control over the military assets of other nations.

There is also inherent tension at the operational level between the national security imperatives of maintaining security and control over dataflows and the growing need for information-sharing between allies and partners. NATO practices in cyberspace, where a clear distinction is made between defensive and offensive cyber operations capabilities (OCOC), offer a telling insight. Although information-sharing on OCOC would theoretically enhance an alliance's effectiveness, in practice, there are significant disincentives due to the sensitive and classified nature of specific capabilities, which may lose their efficacy if disclosed. This challenge is pragmatically addressed in NATO through the "Sovereign Cyber Effects Provided Voluntarily by Allies" (SCEPVA) program. SCEPVA allows allies to offer OCOC effects without revealing the specific capabilities or methods used to execute those operations. The recipients of assistance under SCEPVA cannot fully assess the tactical effectiveness of the effects provided, the potential for operational or strategic escalation, questions related to legality, or other potential risks to domestic systems such as critical infrastructure. Despite these limitations, SCEPVA facilitates critical cooperation by enabling NATO allies to build experience and establish procedures that could be used if allies, under changing circumstances, were willing to accept support without disclosure.

Usually, states try to secure autonomy at the international level but do not necessarily maximize it. Concurrently, there are growing demands for deeper military integration between allies and partners to maximize military readiness and effectiveness. Autonomy relates both to political autonomy, such as the ability to make independent decisions, and strategic autonomy, which aims to preserve control and decision-making over military assets and resources. On the other hand, integration can be understood as the degree to which different military activities are internally consistent and mutually reinforced. Military integration may aim to achieve different goals, such as unity of command (where a single commander directs and coordinates the actions of all forces toward a common objective), unity of effort (in coordinating and cooperating toward common objectives, even if the participants are not necessarily part of the same command structure or organization), and interoperability (the ability of various military systems to operate with each other).

Driving Future Partnerships

Military alliances of the future may ultimately evolve toward a unified battle command architecture and mission command, necessitated by the speed and lethality of kinetic and non-kinetic weapons. Military operations will become faster as operational cycles become shorter, and militaries will be critically reliant on timely data and intelligence, including from allied and partner sources. Such an evolution contradicts the traditional logic of safeguarding autonomy as national actors generally seek to maintain control over their assets. Alliances and coalitions set out and impose specific conditions and caveats on how and when deployed assets can be used. Nations will need to reassess where they draw the line on giving up sovereign control over national military assets and resources or the extent of operational integration they are prepared to accept, communicating their limits and caveats early on. Some states may prefer to preserve higher levels of strategic autonomy – whether in decision-making or maintaining control over military assets, commercial industries, or other components of capability – than others. When nations communicate their "red lines" early, it becomes easier to design programs to respect those preferences.

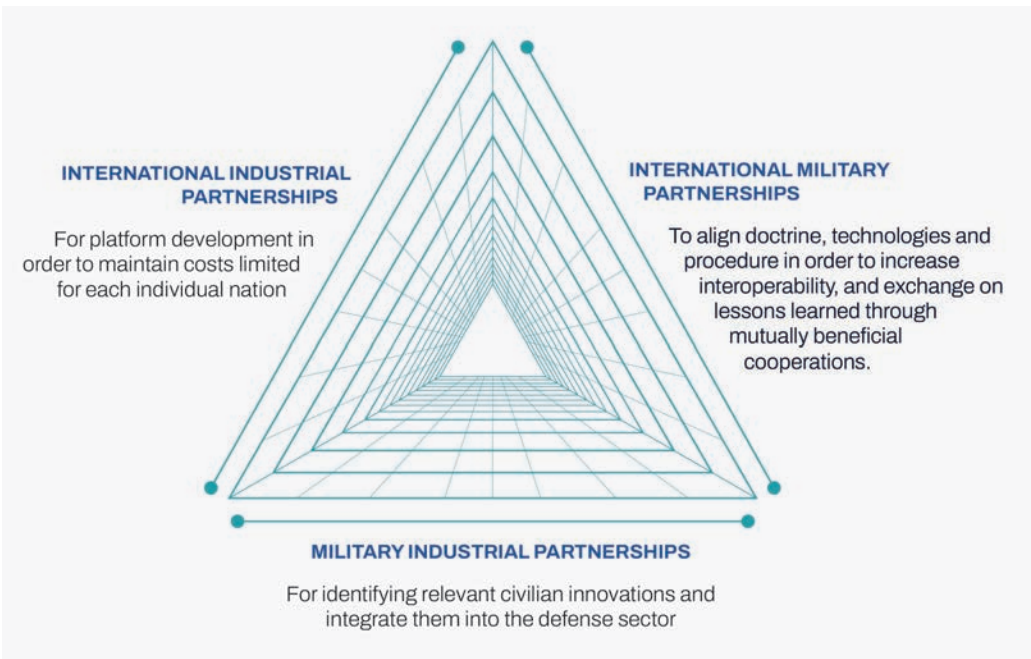

Figure 10.1: Partnership Frameworks for Military Organizations

A combination of military-strategic imperatives and technological advances drives future force transformation. With a rapidly evolving threat landscape and proliferating new technologies that expand the solutions space to operational problems for military operators, nations must ensure national strategic assessments and defense policies remain relevant to strategic realities. Exponential technological breakthroughs led by the private sector, particularly in digital, quantum, and AI technologies associated with the "4th industrial revolution," promise to radically alter the planning and execution of future military operations. For example, converging digital, computing, and space technologies will enable new battle networks that transform C2, enabling the leap from stove-piped operations in a single domain to connectivity across all domains. As envisaged by the United States' Joint All Domain Command and Control (JADC2) construct, commanders will become able to integrate cross-domain effects in real-time assisted by decision support systems. Another potential application of emerging technologies is advanced human-machine teaming, which will help unlock tactical advantages and support force development through AI-assisted experimentation (Borchert et al., 2023).

With the cost proliferation in recent decades of advanced military systems, international partnerships have become essential in planning for future military capability and achieving force development objectives. The growing costs of developing and acquiring advanced military systems incentivize governments to pursue multinational development programs and industrial cooperation to keep future platforms and capabilities affordable. This is particularly true for middle powers with an existing industrial defense and technological basis, where there are growing examples of multinational cooperation such as the Future Combat Air System (FCAS) being co-developed by France, Germany, and Spain or the Global Combat Air Programme (GCAP) jointly developed between the UK, Italy, and Japan. While being a secondary form of weapons system development in the 1960s and 1970s, international cooperation became common practice in the 2000s. For example, in Europe, several aircraft have been developed and produced in cooperation by European partners, such as the NH90 helicopters, Eurofighter combat aircraft, and A400M transport aircraft. Similarly, the fifth-generation F-35 stealth fighter was developed by U.S.-based Lockheed Martin as a cooperative program from the very beginning, organizing cooperation according to "tiers" based on financial contributions and expected pay-offs: Tier 1 comprising the UK; Tier 2 including Italy and the Netherlands; Tier 3 constituting Australia, Canada, Denmark, and Norway, with another 10 nations are listed as either "Security Cooperative Participants" or "Foreign Military Sales Participants." This native multinational approach was meant to foster interoperability between the United States and its allies and partners.

However, large-scale industrial cooperation and multinational procurement programs are fraught with challenges and risks from competing political and economic interests. Partners in a joint development project may have differing needs and requirements for a jointly developed military system, differences that force unpleasant negotiations and unwanted trade-offs. Choices that must be made between conflicting objectives can increase friction points between partners, stymying the

extent of cooperation. For example, the, at times, fractious development and spiraling cost of the F-35 program have left partners dependent on the U.S. and Lockheed Martin, and their eventual success or failure, for a critical instrument of air power. In short, there is a trilemma of international defense procurement for which there is no silver bullet: states cannot simultaneously maintain strategic autonomy (and retain full control of critical systems), expect maximized benefits from industrial spinoffs, and contain costs.

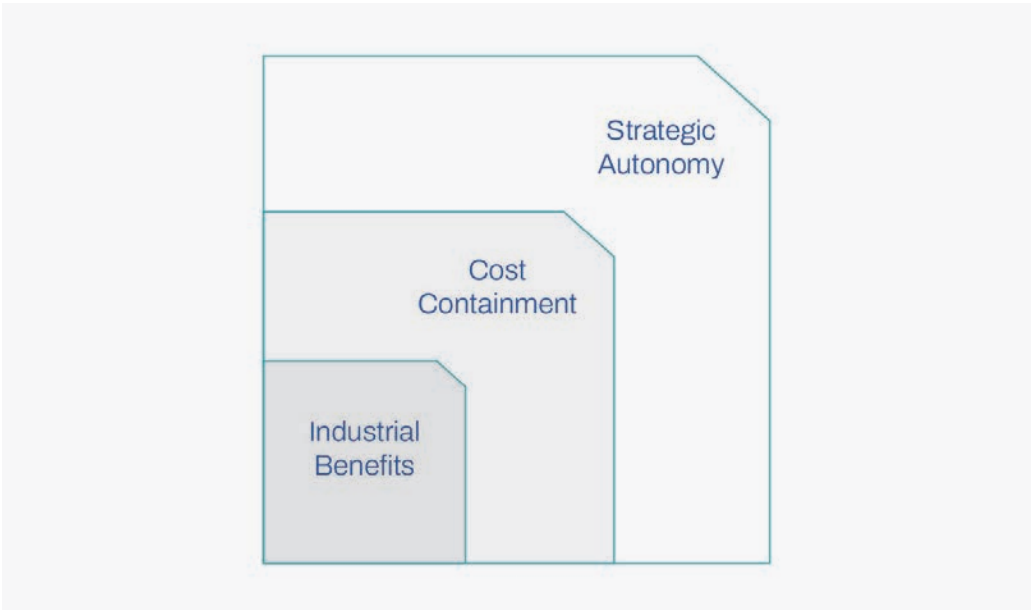

Figure 10.2: The Trilemma of International Defense Procurement

Shifting Paradigms

Compounding the political problem of international partnerships is the complex challenge of identifying the proper engagement format for industrial cooperation between civilian forms and the military. The current wave of breakthrough technologies has two main characteristics. First, they are driven by the private sector primarily with civilian applications in mind, with defense organizations playing catch-up on innovations occurring outside the traditional defense and technological industrial basis (DTIB). Indeed, “companies are going to war (Franke 2024), since a number of civilian innovations are critical to contemporary and future military operations. For example, during the first hours of the 2022 Russian invasion of Ukraine, Microsoft worked with the Ukrainian government to counter the

Russian "Foxblade" malware; Ukrainian military communications and targeting have partly depended on services provided by Starlink (a satellite-based communication system developed by SpaceX); and the most popular drone in use in the Ukrainian armed forces has been a modified version of the commercially available DJI Mavic 3. These are just instances of a broader trend of key technologies (notably AI and quantum) being developed primarily by civilian companies with civilian markets in mind.

"Open innovation" (Cronin 2019) paradigms will alter decision-making relating to defense acquisition and procurement cycles by pushing rapprochement between civilian industries and militaries. Many countries worldwide, including China, Israel, and the United States, are investing in efforts to bolster civil-military fusion, aiming to harness technological developments into military uses more quickly and effectively (Evron and Bitzinger, 2023). For example, in Israel, the integration of new technologies into the military has coincided with a profound doctrinal change: the replacement of extensive ground maneuvers with precise, lethal operations against the critical capabilities of adversaries in wartime and between wars. But lacking the capacity to develop the entire range of emerging technologies by itself, the Israeli defense establishment relies increasingly on advanced technologies developed by civilian entities for the civilian market. This is facilitated by Israel's configuration of civil-military relations, and especially the structure of military service in which young officers better understand defense needs and facilitate the circulation of knowledge and people across the military, academia, and industry. As of the early 2020s, Israel's high-tech sector included some 5,000 start-up businesses, with 600 new companies being established yearly, a significant portion of them working on projects with a military application. Yet, despite the growing focus on civil-military fusion in several countries, cultural and economic challenges in incentivizing civilian industries to cooperate with the defense sector remain.

Creating more opportunities for interaction is vital for improving civil-military collaboration, breaking down barriers, and reconciling differences in organizational cultures and interests. Similarly, deepening interaction between military allies and partners will be essential for supporting future capability development and force transformation while balancing security concerns over sovereign capabilities and the need to protect classified sources, systems, and data. The upcoming decade will be marked by a transformation of the global order, contributing to the broader "geoeconomic" turn in international affairs. In anticipation of these changes, the security of supply chains and the role of dual-use technologies become critical issues on the national security agenda for many nations. While profitability may call for more liberal trade practices and cater to globalized supply chains, security considerations urge for caution and more restrictive models.

Nations and international companies rely on dispersed supply chains and increasingly must make trade-offs between security and economic interests while navigating complex geopolitical barriers. The Coordinating Committee for Multilateral Exports (COCOM), a multilateral system for implementing export controls during the Cold War, is a legacy framework that could provide a basis for overcoming the contemporary challenges of a technologically disruptive environment where intellectual property

and commercial interests are vital for securing national interests and must be fiercely protected. COCOM served as an extension of U.S. export controls by ensuring the Soviet Union could not access American technology shared with European allies. Critical technologies such as AI, quantum technologies, big data, and autonomous systems developed through "open innovation" are exposed to similar risks and vulnerabilities. Allies and partners must find new ways to secure critical supply chains by devising export control and trade policies to protect national security concerns by expanding cooperation and strategic alignment.

Not all partnerships will yield worthwhile results, especially if they create more complications than solutions. The challenges of international partnerships bring deep structural issues back into focus: diverging political and economic interests cannot be "solved" once and for all. Instead, they require ongoing and case-by-case managementwhere each situation demands flexibility and where no singular solution can address the complexities of working across different commercial and military cultures and systems. Fostering mutual understanding, trust-building, and cultivating interdependencies over time will be critical for mitigating the inherent risks of the partnerships necessary for force transformation. Making national policies more flexible to meet future challenges collaboratively will require high levels of trust between partners. By encouraging the exchange of knowledge, expertise, and technology across industries, government, and military, new, more open innovation ecosystems to support cross-sector collaboration can be cultivated. The diplomatic skills and acumen of military, government, and industry leaders will be crucial in ensuring the cohesion and sustainability of future partnership models to support military needsthrough civilian-led agents of innovation.

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Conclusion

In a rapidly evolving international system, multinational military cooperation stands as a cornerstone for future force development. No single nation, regardless of its resources or technological advancements, can adequately address the multifaceted threats that span across regions, domains, and disciplines. By fostering strong cooperation and collaborative efforts, states can share the defense burden, enhance interoperability, and collectively improve operational effectiveness. Such cooperation not only amplifies the military capabilities of each partner but also encourages the exchange of innovation, knowledge, and expertise, contributing to the sustainability of defense strategies. However, this path is not without its challenges. Differences in political agendas, military cultures, and economic priorities

can complicate collaboration. Yet, with transparent communication, early alignment of expectations, and a shared commitment to long-term goals, these obstacles can be mitigated. As global security becomes more interdependent, the success of future force development will increasingly rely on the strength of multinational cooperation, ensuring that coalitions remain agile, adaptive, and prepared for the uncertainties of tomorrow's battlefields.

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