



Considerations for the Evolution of Singapore's Defence Industrial Strategy

Martin Novella and Manoj Harjani



The authors' views are their own and do not represent the official position of the Institute of Defence and Strategic Studies of the S. Rajaratnam School of International Studies, NTU. These commentaries may be reproduced with prior permission from RSIS and due recognition to the authors and RSIS. Please email to Editor IDSS Paper at RSISPublications@ntu.edu.sg.

Considerations for the Evolution of Singapore's Defence Industrial Strategy

Martin Novella and Manoj Harjani

KEY TAKEAWAYS

- *Singapore's defence industrial strategy is built on selective specialisation, strong international partnerships and a focus on domestic operational needs.*
- *The growing diffusion of disruptive technologies, combined with the recent emergence of middle-power defence producers like South Korea and Turkey, presents challenges and opportunities for differentiation and growth.*
- *To adapt, Singapore can consider deeper niche specialisation, horizontal diversification and a model of outsourcing supply chains in non-critical activities to lower-cost international partners, with the goal of sustaining competitiveness as well as a technological edge.*

COMMENTARY

Singapore's [announcement](#) of a defence budget estimated at S\$24.93 billion (~US\$19.5 billion) for the 2026 financial year – representing a 6.4% increase over the revised 2025 allocation – offers a timely entry point to reassess the trajectory of its defence industrial strategy. While the scale of expenditure remains modest in absolute terms compared to major powers, it raises a broader question about how Singapore can continue to align its defence industrial base with evolving global dynamics, leveraging both domestic capabilities and international linkages to sustain a resilient and competitive ecosystem.

Since 2005, Singapore has maintained a defence budget [exceeding US\\$10 billion annually](#), placing it among the top 20 countries in the world in terms of military spending. This has enabled consistent access to sophisticated weapon systems.

Spending has been supported by strong international [partnerships](#), which have facilitated access to advanced technology. In addition, there is a [well-coordinated domestic defence industrial ecosystem](#) capable of providing direction and consistency to projects with local content.

Singapore has notably been selective in its development of domestic capabilities, which are focused on the operational needs of the Singapore Armed Forces (SAF). Domestic defence companies such as ST Engineering produce a [full spectrum](#) of small and large-calibre ammunition. But at the platform level, indigenous development typically integrates foreign subsystems, eschewing full technological autonomy. For example, the [Hunter Armoured Fighting Vehicle](#), jointly developed by ST Engineering, the Defence Science and Technology Agency and the SAF, features a German-origin engine and an American-origin primary weapon.

In this context, the current the global defence industry landscape presents certain opportunities. First, the rapid advancement and diffusion of civilian technologies have significantly lowered barriers to entry in segments such as [autonomy, cybersecurity, and combat management](#). This has enabled smaller companies, including [start-ups](#), to enter the defence industry with cost-effective solutions. In countries such as the United States, civilian technological diffusion has been reinforced by [private equity finance](#), which channels a deep venture capital market into experimentation and the creation of [new companies](#).

Second, for conventional land, naval and air platforms, some middle powers are emerging as major defence producers. Over the past 20 years, countries such as [South Korea](#) and [Turkey](#) have achieved significant horizontal diversification and reached notable levels of maturity and sophistication, along with a growing presence in smaller regional markets. Other countries such as [Canada](#), [Japan](#) and [Poland](#), which have active military modernisation programmes, are also likely to increase their production capabilities. In some niche segments, the expansion of defence production in [Brazil](#), [Czechia](#) and [Indonesia](#) is also evident.

Avenues for the Evolution of Singapore's Defence Industrial Strategy

The combination of new entrants in low-barrier technological segments and the maturation and expansion of middle powers in traditional segments poses a question for Singapore's defence industrial strategy: how should it orient its investment plans to preserve technological successes in niche segments while growing new areas vis-à-vis larger competitors that are expanding rapidly?



How should Singapore orient its defence industrial strategy to preserve technological advantages in niche segments while growing new areas? *Image source: Unsplash.*

First, there is potential to deepen a focus on niche markets where Singapore already demonstrates comparative advantages while simultaneously expanding horizontal diversification across related segments. Singapore has already shown strength in areas such as ammunition, advanced electronics, communications systems, unmanned platforms, cyber defence and systems integration. Other related segments where economies of scale do not require large demand volumes to amortise high R&D expenses include electronic warfare systems, multispectral sensors and radar. The development of capabilities in areas such as rockets and missiles is also a possibility, given the availability of capabilities in aerostructures, composite materials, guidance systems, and propulsion energetics. These are segments where production volumes are less decisive in the early stages, and where intellectual property (IP) plays a central role. By concentrating resources in such niches, Singapore can position itself as a global leader in specific high-value segments.

Second, there may be opportunities to further develop internationalised supply chains that combine Singapore's strengths in technology design with cost-effective production and engineering resources in partner countries. Singapore-based entities could retain control over core technologies, system architecture and high-value components while outsourcing certain manufacturing processes or labour-intensive engineering packages to countries with lower cost structures. This would allow for increased competitiveness while retaining the last stages of assembly, test and validation, and IP.

This model would differ from traditional offset-based strategies that rely on large procurements with localisation requirements. Offset-based strategies have proven unsatisfactory in many countries as large prime contractors tend to localise assembly tasks and procurement of low value-added parts and components. Growth is also limited by economies of scale and the small pool of high-skill labour. A recent alternative approach by countries [like the UAE](#) has been to move up the production ladder while avoiding supply chain bottlenecks through IP acquisition and manufacturing capacity. For instance, the country's EDGE Group took stakes in the Estonian unmanned ground vehicle company [Milrem Robotics](#) and Brazilian missile company [SIATT](#).

Careful selection of partners is essential to ensure reliability and alignment with Singapore's standards of quality and governance. Over time, such partnerships could also contribute to capacity-building for other countries, particularly within Southeast Asia. For Singapore, the result would be a more flexible and scalable production base that is better able to compete in international markets. Moreover, this approach would enhance supply chain resilience, which is an increasingly critical consideration. By diversifying sources of components and engineering support, Singapore's defence industry can reduce vulnerability to disruptions.

Looking Ahead

Both avenues – niche specialisation with horizontal diversification, and strategic supply chain internationalisation – build on Singapore's existing strengths. They recognise the structural realities of scale, cost and operational context while identifying ways to turn these into opportunities for innovation and differentiation.

Singapore's defence industrial strategy has traditionally been characterised by pragmatism and adaptability. The ecosystem in Singapore has demonstrated the capacity to learn from global trends and adjust policies accordingly. However, the absence of a publicly available defence industrial strategy introduces a degree of opacity that may constrain coordination, external engagement and long-term planning. Addressing this gap could itself become a key enabler of future development, providing greater strategic clarity to both domestic stakeholders and international partners.

Martin Novella is an independent researcher specialising in defence acquisition and industrial policy. ***Manoj Harjani*** is Research Fellow and Coordinator of the Military Transformations Programme (MTP) at the S. Rajaratnam School of International Studies (RSIS).

S. Rajaratnam School of International Studies, NTU Singapore
Block S4, Level B3, 50 Nanyang Avenue, Singapore 639798

Please share this publication with your friends. They can subscribe to RSIS publications by scanning the QR Code below.

