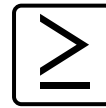


# POLICY BRIEF



InterAgency Institute  
BEYOND INSTITUTIONAL BOUNDARIES

## BRAZILIAN AND SWEDISH NAVAL INDUSTRY

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### POLICY STATEMENT

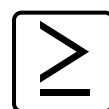
In December 2020, Sweden's Parliament approved an increase of 40% in the defense budget for 2021 – 2025, resulting in the amount of 27 billion Swedish kronor (\$3 billion) in the period, the largest increase in 70 years. This is due to regional tensions with Russia, but it allows Sweden to think about new projects both for itself and with partnerships. For example, in the naval sector, the country should explore the potential of the closest relation with Brazil. Sweden has already consolidated cooperation within aeronautics because of the SAAB Gripen Contract in 2014. Brazil and Sweden have a high concern about their waters, a background in defense and the naval sector, specifically, and a range of opportunities to work together. This policy brief presents, then, an outlook of the Brazilian and Swedish naval industry related.

### BACKGROUND

Brazil and Sweden have a significant number of defense agreements: (1) Agreement on Maritime Transport/1979; (2) Agreement on Economic, Industrial and Technological Cooperation/1981; (3) Memorandum of Understanding about Cooperation in Defense/2000; (4) Additional Protocol about Cooperation in High and Innovated Industry Technology/2009; (5) Plan of Action of the Strategic Partnership/2009; (6) Agreement on Information Sharing and Protection/2014; (7) Agreement on Cooperation in Defense; (8) Memorandum of Understanding in Military Cooperation in Aeronautics/2014; (9) New Plan of Action of the Strategic Partnership/2015; and (10) Reinforcement of the Agreement on Cooperation in Defense/2017.

These are what we call *hard law* agreements because they are materially expressed. In this sense, considering Brazil and Sweden's relations, a general example of hard law would be the annual Innovation Week, organized by the Swedish Embassy in Brasília, with the support of other actors, like the Armed Forces from both countries. A specific case of hard law in the naval sector can be, in its turn, the participation of Sweden in the modernization of the Frigate Liberal (F-43) from the Brazilian Navy, which operates in the United Nations Interim Force in Lebanon/UNIFIL. Besides, SAAB has already donated ships to the Brazilian Navy and, every year, it occurs the Program of Acceptance Factory Test Abroad (PTAFE) of naval equipment, also from the Brazilian Navy.

However, there is also *soft law*, agreements understood in a more spontaneous way, such as the Brazilian military ship stops in Sweden and vice-versa, exchanging civilians and militaries between navies and the International Congress of Countermining Measures, organized by SAAB in Brazil every two years.



## FINDINGS

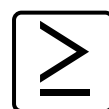
Referring to Brazil and Sweden's opportunities in the naval sector, SAAB remains with the naval Gripen project (Gripen M), which has Brazil and India as potential long-term clients.

Secondly, in the Swedish White Book, it is detailed the need of a refit reform in the Swedish Royal Navy: *"The Navy's existing ships will be upgraded with air defense missiles and new anti-ship missiles for all five Visby class corvettes. Two surface combatant vessels will be acquired after 2025 to replace the two older Gävle class corvettes. The number of submarines will increase from the current four to five through a mid-life upgrade and activation of the third Gotland class vessel. Two new Type A26 submarines will be added towards the end of the period; the plan is to deliver them to the Swedish Armed Forces in 2024-2025. The three Gotland class submarines will have to be replaced in 2030-2035, which means that the acquisition process needs to commence no later than in 2025. The anti-submarine capability will be strengthened by upgrading existing helicopters with naval operational capabilities, including a new tactical data link and an anti-submarine torpedo. The mine countermeasures capability will be maintained. To strengthen deterrence and limit the effects of an armed attack, mine-laying capabilities will be strengthened. The capability to employ heavy land-based anti-ship missiles is complementary to other anti-ship systems. The Defence Commission considers this system important and notes that it will be operational until the mid-2020s. The Commission proposes to maintain the capability beyond 2025. The Defence Commission believes that there is a need for qualified amphibious units on the west coast of Sweden and in Gothenburg, i.a. to contribute to the protection of Sweden's important western link. In the coming defense period 2021-2025, the Commission proposes establishing a new amphibious battalion on the west coast of Sweden. The naval base organization and logistics function will be reinforced"*.

Third, about the future of the Swedish defense industry as a whole, Mark Lundmark, from Swedish Defense University (SEDU), lists the military utility of future technologies, considering its impacts: (1) Cognitive radar (artificial intelligence/AI): significant utility; in 2040, the scenario shows this type of system working in cooperation between the Air force and the Navy through multifunctional technologies; (2) 5G Technologies: moderate utility; and (3) Multi-domain systems UxS: uncertain utility; in 2040 scenario, it is expected vehicles that can fly, crawl and operate in an amphibious mode, saving energy.

## CONCLUSIONS

Sweden's development is related to the triple-helix model, an architecture where academy, industry, and government are strongly integrated, which led the country to be the second most innovative country in the world, according to the 2020 Global Innovation Index. In Brazil, in opposition, those sectors are not connected as they should be. As a result, remembering that Sweden only woke up for exportation in defense after the Gripen Brazilian Contract (since World War II, the production was focused on the internal market, having the State as the principal client), there is a panel where Brazil can share his experience with internationalization and Sweden can advise about Science, Technology, and Innovation. This could happen efficiently through new defense industry contracts, especially in the naval sector.



## SUGGESTIONS

In a report of the Swedish Agency for Growth Policy Analysis, the Swedish interests in expanding cooperation with Brazil should take place in new clusters format. Clusters got attention from the society and, specially, from academy, with Michel Porter, in 1990, when he defined it as a concentration of companies with similar characteristics, that cohabit the same place and get more efficient collaborating with each other. In the last years, though, clusters turned into a more sectorial initiative, which supports even more the idea of a Brazilian-Swedish naval cluster.

In Sweden, to begin, there is already a *technopole* in the city of Linköping, but, at first, it is focused in the aeronautic industry; so, a geographic expansion of this space and a change in its core business would have to be studied. On the other side, Sweden's naval industry is represented, mainly, through the companies SAAB Kochums and Karlskronavarvet, in the cities of Malmö and Karlskrona, respectively; with that, those places can be a start in a deeper study of a naval cluster (in Sweden), which can happen naturally or be stimulated.

The Brazilian Navy has already mapped some potential states for a new naval cluster, which would include Bahia, Pernambuco, Rio Grande do Sul, Rio de Janeiro and Santa Catarina. However, São Paulo state can also be considered inside the cluster, whose capital is the second largest industrial city with Swedish companies, only after Gotemburg, in Sweden itself. Last, Minas Gerais state can also be included, which has agreements on sustainable mining with Sweden. In Rio de Janeiro, to conclude, there is the Technological Naval Cluster just with Brazilian companies, so, it can also be thought the possibility of an expansion and diversification of the actors.

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