

The challenge and opportunity of semiconductors

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Published in *O Globo*, April 24, 2022

One of the main trends in international trade is the burgeoning growth of the digital economy. Semiconductors play a central role in this new economy. Computers, cell phones, cars and other electronic devices that we use every day would not exist without them. These indispensable components are the result of complex and internationalized production chains.

Since 2020, with the disruption caused by the pandemic, a significant portion of the population began to work and study from home, which caused a significant increase in demand for electronics. The global transport logistics, on the other hand, has been disrupted. Semiconductor manufacturers could not meet the new demand in the required quantities and deadlines.

The government of President Jair Bolsonaro, through the Ministry of Foreign Affairs, the Ministry of Science, Technology and Innovations, the Ministry of Communications and the Ministry of Economy, follows the issue closely. Through the Semiconductor Working Group, we maintain close dialogue with the National Congress and civil society for the promotion of the national semiconductor industry and the inclusion of Brazil in international supply chains.

One of the milestones of this dialogue will be an international seminar on the subject, on April 27, 2022, at Itamaraty Palace, in Brasilia. With the participation of Brazilian and foreign authorities and experts, the current challenges of the sector, the regulatory framework and applicable policies for semiconductor supply chains, and the prospects of the Brazilian industry in this new scenario will be discussed.

Brazil has a relevant semiconductor industry, but domestic production only meets about 10% of domestic demand, according to data from the Brazilian Semiconductor Industry Association (Abisemi). By relying on the import of these components, the domestic industry has been seriously affected by the global shortage of the product. According to the Brazilian Association of the Electrical and Electronics Industry (Abinee), 70% of companies in the sector have difficulty obtaining the semiconductors they need. Our automotive industry has also been seriously affected.

In constant dialogue with the productive sector, the Brazilian government has adopted measures to stimulate national semiconductor production, such as the institutionalization of the collaborative network for the increase of productivity and competitiveness of the Brazilian automotive sector, called Made in Brazil Unlimited (MIBI), as well as Law 14,302/2022, which extends until 2026 the incentives of the Program to Support the Technological Development of the Semiconductor Industry (Padis).

There are other initiatives under discussion, including the creation of Export Processing Zones, with special tax, exchange and administrative regulations for the

production of semiconductors. The creation of these zones in Brazil will strengthen the existing industry and attract new investors to the domestic market, as leading companies in the global semiconductor market seek to shorten supply chains, diversify and decentralize their operations.

Brazil can stand out in the new semiconductor supply chains that will emerge as a response to the current crisis. We have skilled professionals as well as conditions to train new ones. Our geographic location facilitates the logistics of supply to other important regional markets, including in the Americas and Europe.

In order to take advantage of Brazil's full potential in this sector, a joint effort will be required, supported by all spheres of the Brazilian state. This effort will certainly result in consistent policies that can yield excellent fruits for the technological, economic and social development of Brazil.

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