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MOBILIZAÇÃO EMPRESARIAL PELA INOVAÇÃO

BRAZIL

INNOVATION INVESTMENT

Results from a Future Readiness perspective and *Lei do Bem* case study

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I. Background: Brazil's Future Readiness (1/2)

- The **National Confederation for Industry (CNI)** through the **Mobilization for Innovation (MEI)**, points out that most **Brazilian companies are unprepared for changes in global competitiveness and their profound impacts on the economy, particularly the manufacturing industry.**

- According to **MEI**, in order for **Brazil** to overcome this situation, the country **needs to adopt a ST&I prioritization agenda**.

- The proposals defended by MEI are organized into **six thematic axes**: ST&I policy and governance, regulating ST&I, **financing ST&I**, improving human resources, global insertion of local industry through innovation, and fostering innovative entrepreneurship.

I. Background: Brazil's Future Readiness (2/2)

- The report presents policy recommendations crafted to improve Brazil's level of *Future Readiness*.

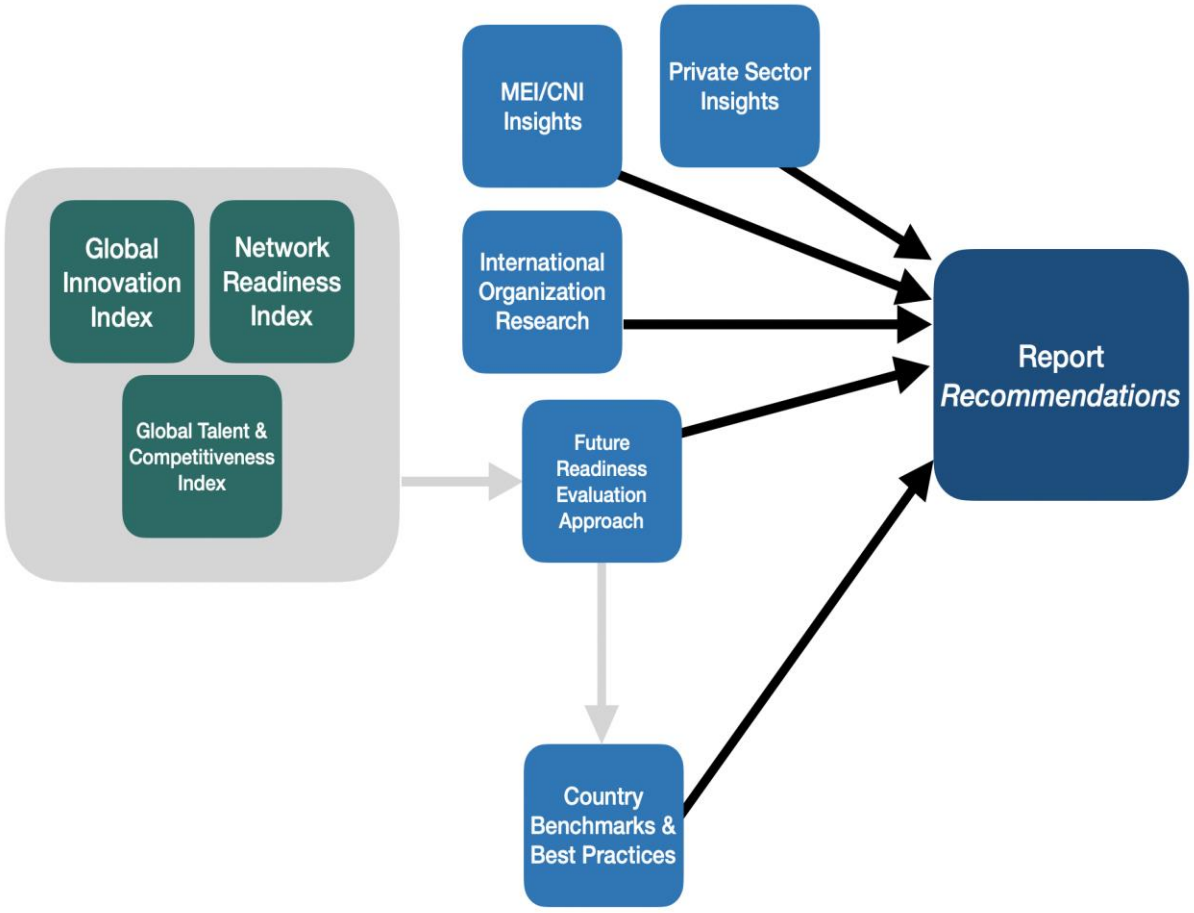
- Accordingly, it offers an overview of Brazil's current *Future Readiness Status* by using data-driven insights to reflect on the country's capacity to:

  - Maximize the potential of its local and regional assets to create new technological and industrial landscapes,

  - Develop and retain skilled talent, and

  - Absorb and benefit from new technology.

Research Methodology



II. Key Findings (1/5)

❖ Investment in innovation, technology, and talent go hand-in-hand with competitive levels of innovation

- **Although the percentage of Gross Expenditure on R&D financed by Brazil's government amounts to nearly 50%, this figure represents only about 0.63% of Brazil's GDP, which is almost half in comparison to other developed economies.**

- Economies like the **Republic of Korea, Sweden, and Germany** – all top global Innovators – show that **the proportion of GERD financed by the government nears 1% of their GDP, all the while showing a total GERD with respect to GDP above 3%.**

II. Key Findings (2/5)

❖ Governments play an active role in financing Science, Technology, and Innovation in some developing economies

- **Brazil displays a GERD as a percentage of Gross Domestic Product (GDP) that is only near 1.3%. While this percentage is above the average of economies from Latin America and the Caribbean featured in this Report (0.4%), it is far from that displayed by its fellow BRICS economy China (2.2%).**

- Economies like **Israel** and the **Republic of Korea**, gross expenditure on research and development (GERD) is nearly 5% of their GDP. Other economies, like Japan and Denmark, display levels that are above 3%.

- All of these economies are in the top innovation rankings.

II. Key Findings (3/5)

❖ Balanced and stable markets attract foreign capital investment

- ❖ **The local financial system appears far from the levels of sophistication seen in economies at higher stages of development.**
- ❖ **This is corroborated by Brazil's gross capital formation, measured by a ratio of total investment to GDP of only 15.7%.**
- ❖ **This disparity may partially influence Brazil's low venture capital investment in 2019, reporting a mere 67 venture capital deals that year**

II. Key Findings (4/5)

❖ There are serious – yet not insurmountable – hurdles to financing innovation in Brazil

- ❖ **Critical funding gaps remain despite recent policy action.**
- ❖ **Further, the great diversity of investment opportunities in innovative individuals, ideas and companies across different stages of the innovation lifecycle are not sufficiently supported by infrastructure, institutions or security for investors.**

II. Key Findings (5/5)

- **Improvements in key areas can drastically improve Brazil's future readiness** (final remark)

  - **Findings indicate that efforts to boost Brazil's innovation-driven competitiveness would benefit more from the development, application, and monitoring of more holistic and sector-encompassing policies.**

  - **The assessment suggests that higher performance in key areas -including an increase in GERD of at least 16% would have a highly positive effect on Brazil's competitiveness and overall innovation output.**

III. Lei do Bem: Impact analysis on Brazil's R&D sector

- In recent months **Brazil's Federal government** enacted a legislation that, with some exceptions, **introduces a general reduction in tax incentives**.

- This reduction will take place in such a way that **the total of exemptions will not exceed 2% of GDP**.

- These alternative bounds will have **direct implications on those sectors originally covered by the Lei do Bem** and will most likely disrupt the productive cycles of these, with particular implications on those more closely linked to **Research and Development (R&D)**.

III. Key Findings (1/2)

- **Empirical exploration using data from Brazil's MCTI and various sources used by the GII**
  - **Based on the most recent data from both the IMF and UIS the average GERD as a percentage of GDP for Brazil during the years 2016-2019 was almost 1.2%.**
  - **Similarly, the average amount of fiscal incentives with respect to GERD that R&D-intensive businesses have received during that same period was close to 3%.**
  - **Taking this information (GDP, GERD, R&D fiscal incentives as a percentage of GERD) estimations for three key indicators in the GII in the domains of R&D and business sophistication can be produced.**
  - **These indicators are:**
    - **GERD as a percentage of GDP,**
    - **Global R&D companies (average investment of top 3), and**
    - **GERD financed by business as a percentage of GERD.**

III. Key Findings (2/2)

Table 1a. Brazil: Effect of tax incentive reduction in GII performance						
GERD financed by business, %	47.46		Est.	38.6		
Global R&D Companies (2.3.3)	300.97		Est.	228		
GERD % GDP (2.3.2)	1.26		Est.	1.06		
	V0			V2	Diff.	
	Rank GII 2020			Rank GII 2020 BRA	V0-V2	V1-V2
GII	62			63	-1	-1
Input	59			60	-1	0
2.3. Research & development (R&D)	34			36	-2	-2
2.3.2 Gross expenditure on R&D, % GDP	30			35	-5	0
2.3.3 Global R&D companies, top 3, mn US$	23			25	-2	-2
5. Business sophistication	35			39	-4	-1
5.1. Knowledge workers	32			41	-9	-1
5.1.4 GERD financed by business, %	33			46	-13	-1

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