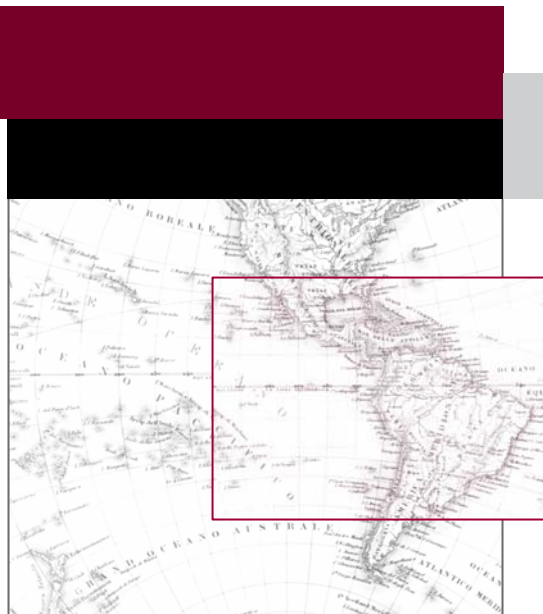


# **Innovation Policies in Brazil: Macro-institutional aspects and International Strategies**



PROSPECTIVA

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## 1. Innovation Policies

- PITCE

- Other Measures and Institutions

## 2. Macro-institutional aspects

## 3. International strategies

## 4. Conclusions

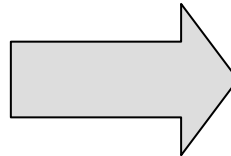
## Competitive Advantages and Disadvantages: Challenges for Innovation in Brazil

### **Advantages:**

- Local scientific base
- Installed industrial capacity
- Market Dimension
- Purchasing power of the state
- Telecom Infra-structure
- MNCs
- Biodiversity
- Innovation Law

### **Disadvantages:**

- Low quality basic education
- Distance between scientists interests and market demands
- Scarce R&D investments
- Limited capacity for commercializing innovation
- **Macro-institutional aspects**
- **International strategies**



### **Challenges:**

- Building a local innovative capacity
- More private investments in R&D
- Strengthening networks between public and private institutions
- Macro-institutional aspects that eliminates barriers for innovation
- International strategies aligned with Innovation priorities

## Industrial, Technological and Foreign Trade Policy (PITCE)

- Implemented since 2004
- Set of articulated measures and institutions to strengthen and improve Brazil's industrial base → improvement of innovative capacity of companies
- Target → international competitiveness levels (international insertion)
- Breaks the dichotomy between sectoral and horizontal policies
- Includes services
- Articulation between promotion institutions and private companies
- Priority given to sectors and potential sectors
- No distinction among state-owned, domestic and multinational companies

## Focus

- Innovation and technology development
- International insertion
- Industrial modernization
- Institutional climate/ increase of productive capacity

Coordination: Brazilian Agency for Industrial Development (ABDI)

## Priority Sectors

- Pharmaceutical chain
- Software/ IT
- Capital goods
- Semiconductors

## Potential Areas

- Biotechnology
- Nanotechnology
- Biomass/ renewable energies

## Other Measures and Institutions

Measure/ Institution	Objectives
Innovation Law	Applied innovation
BNDES	Development, export promotion and innovation
FINEP/ Sectoral Funds	Innovation
APEX	Export Promotion
SEBRAE	Support to small and medium companies
Government Procurements	Promotion of domestic companies
Petrobrás/ Eletrobrás/ Bank of Brazil	Promotion of productive chain
CNPQ/ FAPESP and similar	Scientific research
Centers like Embrapa, ITA, etc.	Applied research

## Several Agencies in the Federal Government are Responsible for Innovation Policies

- **Ministry of Development, Industry and Trade**
  - Apex, INPI, BNDES
- **Ministry of Science and Technology**
  - FINEP, CNPQ, Sectoral Funds
- **Ministry of Health**
  - Fiocruz
- **Ministry of Agriculture**
  - Embrapa
- **Ministry of Education**
  - CAPES
- **State-owned companies**
  - Petrobrás

ABDI's role  
still very limited

Often lack of coordinated actions and definition of clear and factible goals

### **Innovation Policies Often Hindered by Domestic Business Climate and Institutions (examples)**

#### **Contradictory policies**

- Prior consent procedures for bio-research
- Backlog for patent applications
- Distance between academic research and industry

#### **Inefficient allocation of resources**

- Tax burden
- Insufficient and uncoordinated funds for innovation
- Infant venture capital market
- Qualified labor programs not focused on innovation
- Labor costs for research intensive activities

#### **Regulatory framework not consolidated**

- Lack of standards and transparency in agencies
- Unstable legislation



## **Brazil's International Strategies are not Aligned with Innovation Priorities**

- Trade policy agendas focused on market access for agriculture and tariff protection for industry → technology transfer, harmonization of standards, trade in services, protection of property (investments and IP secondary
- No specific policies to increment investments by MNCs present in the market
- Strong opposition to international IP regimes
- Inexistence of an investment attraction agency

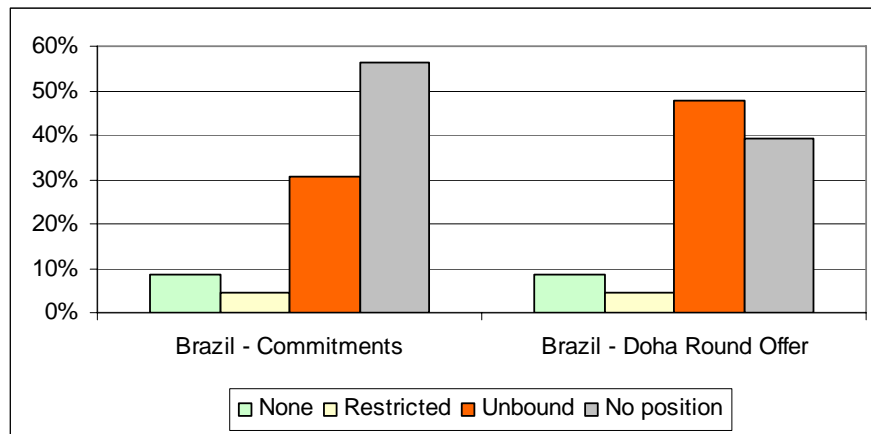
Scientists and innovative companies do not participate in the policymaking of Brazil's international strategies

## Possible Legal, Political and Enforcement Divergences between US FTAs and the Brazil's Legislation

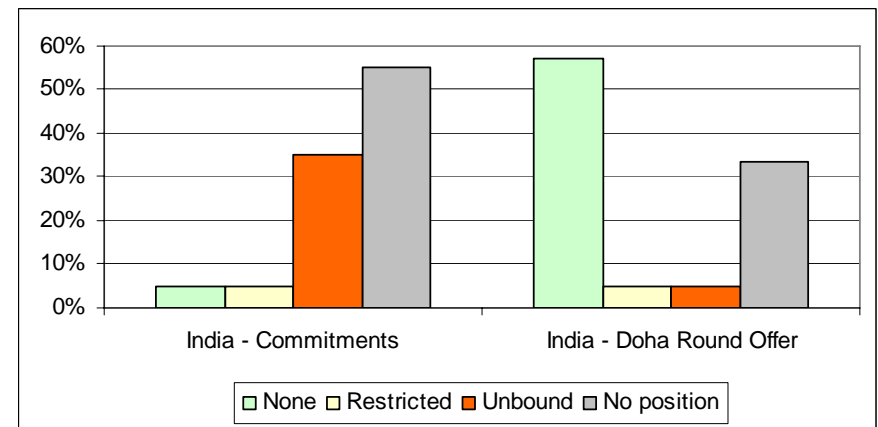
Issue	Impact for Investments	Divergences
Trademarks	High	Enforcement and procedures
Geo. Indicators	Low	-
Internet Domains	Low	-
Copyrights and related	High	Enforcement and procedures
Encrypted Program – Carrying Satellite Signals	Low	-
Patents	High	Ideological, legal (partial) and enforcement and procedure
Industrial Secrecy	High	Enforcement and procedures

## Brazil and India Bound Commitments and Doha Round Offers: Distribution of Types of Positioning

### Brazil Mode 1 – Market Access



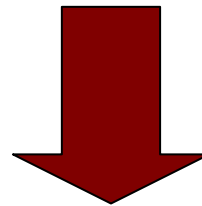
### India Mode 1 – Market Access



Elaboration: Prospectiva Consulting

Brazilian Innovation Policies are Often Overshadowed by Internal Coherence among Different Agencies and Programs

More Asserted International Strategies are Necessary to Promote International Insertion of Brazil's Innovative Activities and Attract FDI in Innovation.



A Much Broader and Coordinated Plan Must be Implemented for Brazil's Innovation Potential to be Transformed into Economic Resources.

Innovative Companies Must Play a Key Role in this Process.