

Industrial Policy challenges for critical systems of the future

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ABDI



NIB – Nova Indústria Brasil

Forte, Transformadora e
Sustentável

NOVA
INDÚSTRIA
BRASIL

*FORTE, TRANSFORMADORA
E SUSTENTÁVEL*

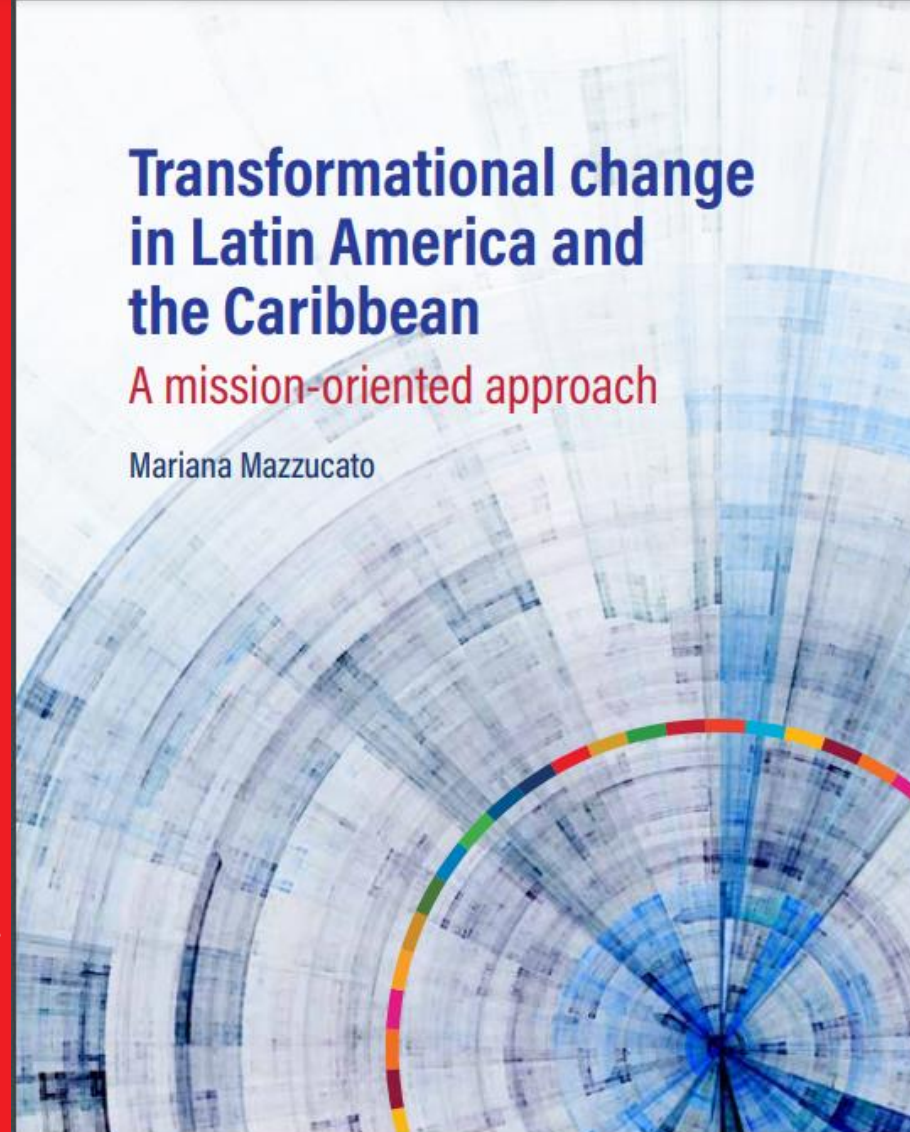
MISSION-ORIENTED INDUSTRIAL STRATEGY

Global Insights

by Mariana Mazzucato, Sarah Doyle and Luca Kuehn von Burgsdorff

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 Institute for Innovation and Public Purpose



Transformational change in Latin America and the Caribbean

A mission-oriented approach

Mariana Mazzucato



ECLAC


 Institute for Innovation and Public Purpose



State Transformation in Brazil

Designing mission-oriented public procurement, state-owned enterprises and digital public infrastructure to advance sustainable and inclusive growth

Edited by Mariana Mazzucato
Policy Report – January 2025

 Institute for Innovation and Public Purpose

Nova Indústria Brasil – Missions (NIB)

A response to society challenges

Mission 1

Sustainable and digital agro-industrial chains for food, nutritional and energy security;

Mission 2

Resilient health-industrial economic complex to reduce SUS vulnerabilities and expand access to health;

Mission 3

Sustainable infrastructure, sanitation, housing and mobility

Mission 4

Digital transformation of industry to increase productivity;

Mission 5

Bioeconomy, decarbonization and energy transition and security

Mission 6

Technologies of interest to national sovereignty and defense

Private investments already announced by sector:

ICT sector ≈ \$ 15 Billion

Automotive Sector ≈ \$ 23 Billion

Food Sector ≈ \$ 21 Billion

Steel Sector ≈ \$ 18 Billion

Pulp and Paper Sector ≈ \$ 18 Billion

Health Sector ≈ \$ 7 Billion



Total ≈ \$ 100 Billion



Challenges we face in implementing NIB:

Unlocking infrastructure to avoid limiting industrial development;

Trends and challenges

Growing urbanization

Climate change

Increasing connectivity and increased vulnerabilities

Budget limitations for the infrastructure (including IFT)

infrastructure obsolescence

Cost of complete replication

integration of Supply chain

Quantum Computing

Present and future
challenges

rethinking critical
infrastructure

Industry 4.0



Industry 4.0 is supported by data communication and connectivity.

Vertical communication ensures synergy between the various parts of the company

The horizontal communication allows the company to establish commercial relationships with the supply chain and represents the industrial basis for management and relationships with other companies.

This 2 elements are critical.

The horizontal, vertical integrations and digital twins requires a fault tolerance infrastructure (FTI)

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Objective: Accelerate innovation in Brazilian companies through a process organized around three axes:

Training of management level in the concept of Industry 4.0;

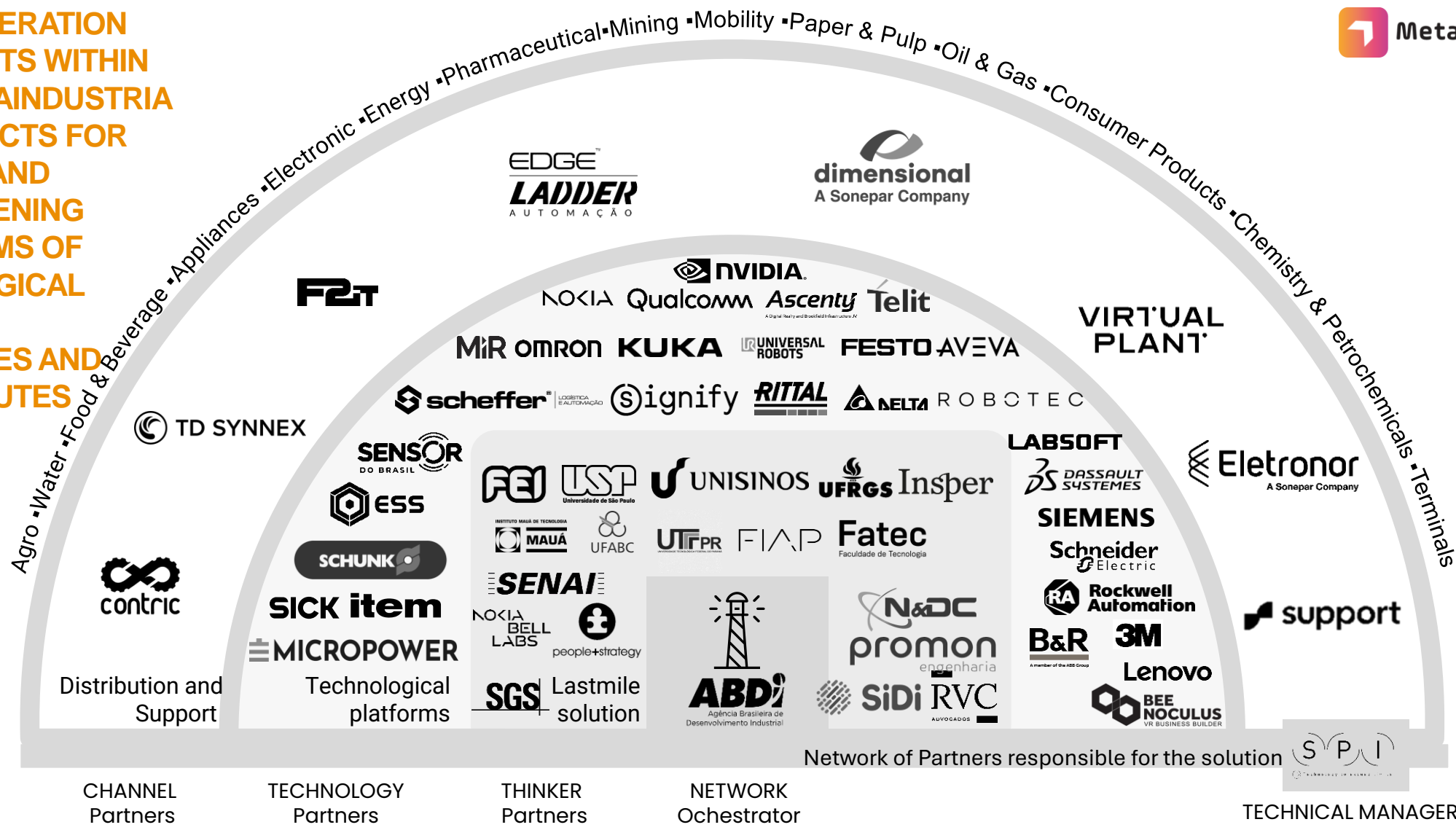
Reducing risks of adopting technologies; and

Accelerating investment decisions in companies.

Focus on improving efficiency, productivity gains and effectiveness of the production process.



A NEW GENERATION OF PROJECTS WITHIN ABDI – METAINDUSTRIA ARE PROJECTS FOR CREATING AND STRENGTHENING ECOSYSTEMS OF TECHNOLOGICAL PARTNERS, UNIVERSITIES AND R&D INSTITUTES



Who did we serve in 2024?

Exploratory Workshops, Strategic Immersions, Case Studies and PoCs



Digital Integration Process

TECHNOLOGICAL INTEGRATION

LEGAL INTEGRATION (CONTRACTS)

INTEGRATION OF VALUE CREATED
FOR SUPPLY CHAIN

INTEGRATION OF VALUE CREATED
FOR THE CUSTOMER

INTEGRATION OF BUSINESS MODEL

DIGITAL INTEGRATION



MetaIndústria

Case Study - PoC

Management Empowerment | Biomanguinhos
Equipe MetaIndústria



Technology is good. Limit.



Agência Brasileira de
Desenvolvimento Industrial

A private network using 5G technology POC

Production Plant of the
Institute of Immunobiological Technology
(Bio-Manguinhos/Fiocruz)

Avoided the waste of more than 2 million
Doses of API* for vaccines.
(*Active Pharmaceutical Ingredient)

The PoC involved:
Nokia, Rockwell Automation,
EDGE and N&DC



How to design an industrial policy for critical systems?
(technological adoption, risk reduction and acceleration of private investment)



FRAMEWORK

How to design an industrial policy for critical systems?

(technological adoption, risk reduction and acceleration of private investment)

1. Cooperation agreements with regulators
2. Definition of private partners and formalization of partnerships
3. Choice of technological routes
4. Choice of use cases with greater value and visibility
5. Public disclosure and recognition
6. Stimulate the creation of the market and business models
7. Disclosure of technical and economic results
8. Standardization of legal instruments
9. Selection of strategic public partners to influence the public and private market
10. Irradiation (generation of business)

How to design an industrial policy for critical systems?

(technological adoption, risk reduction and acceleration of private investment)

STEP	DESCRIPTION	EXAMPLE
REGULATION	CREATE A COOPERATION AGREEMENT WITH REGULATOR	ANATEL ACT (https://agenciabrasil.ebc.com.br/geral/noticia/2020-11/anatel-e-abdi-fecham-acordo-para-testes-de-redes-privadas-de-5g)
PRIVATE PARTNERS	GENERATE BUSINESS VALUE	WEG (website announces partnership) https://www.weg.net/institucional/BR/pt/news/produtos-e-solucoes/weg-completa-testes-praticos-de-conectividade-a-rede-5g
PUBLIC PARTNERS	GAINING COMMITMENT AND PUBLIC FINANCING TOOLS TO MITIGATE RISKS AND ACCELERATE PRIVATE INVESTMENT	FINEP (http://www.finep.gov.br/chamadas-publicas/chamadapublica/695)
MARKET AWARENESS	INCREASE THE AWARENESS OF THE MARKET AROUND THE IMPORTANCE THE TECHNOLOGY	PRIZE SITE https://www.telesintese.com.br/veja-os-vencedores-do-premio-abdi-anatel-de-redes-privativas/#google_vignette
MARKET DEVELOPMENT	PRIVATE NETWORKS	https://www.teleco.com.br/redesprivativas.asp



Thanks!

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