# MCTI ACTIONS FOR THE DEVELOPMENT OF THE CIRCULAR AND SUSTAINABLE BIOECONOMY



#### **Amazon Week 2024 – Brussels**

ST&I and Sustainable Finance as Core Pillars for Bioeconomy in the Amazon

Brussels, Belgium







#### MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION

Produce knowledge

Producing wealth for Brazil

Contribute to the quality of life of Brazilians





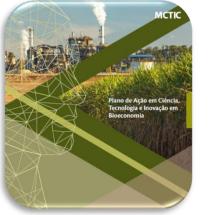
National Strategy for Science, Technology, and Innovation - 2016 | 2024



Strategic Issues



Science, Technology, and Innovation Action Plan for Bioeconomy (MCTI, 2018)







#### **ODBIO PROJECT**



MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E INOVAÇÃO



Opportunities and Challenges of Bioeconomy

#### **KEY QUESTIONS**

Mobilization of actors for the understanding, engagement and joint construction of the Brazilian bioeconomy

#### WHAT IS THE BRAZILIAN BIOECONOMY?



Conceptual field of brazilian bioeconomy

#### WHO DEVELOPS IT?



Mapping of competencies and capabilities in RD&I

#### **HOW TO THINK ABOUT IT?**



Knowledge Hub Model / Brazilian Bioeconomy Intelligence Center

#### **HOW TO COORDENATE IT?**



Governance at federal level

#### **HOW TO DEVELOPED IT?**



Mission Oriented Programs (opportunities and challenges to structure, mobilize and direct the development of the bioeconomy)

## HOW TO PROMOTE IT? WHERE TO DISCUSS ABOUT IT?



National Conference of Brazilian Bioeconomy (proposal to structure a national event bringing together the main players in the sector)

#### ST&I STRATEGY FOR BIOECONOMY

(under elaboration)

#### WHAT IS THE CONCEPTUAL FIELD OF **BRAZILIAN BIOECONOMY?**





The bioeconomy comprises all economic activity derived from bioprocesses and bioproducts that contribute to efficient solutions in the use of biological resources - facing the challenges in food, chemicals, materials, energy production, health, environmental services and environmental protection - that promote the transition for a **new model of** sustainable development and society's well-being.















#### THE SPECTRUM OF BRAZILIAN BIOECONOMY

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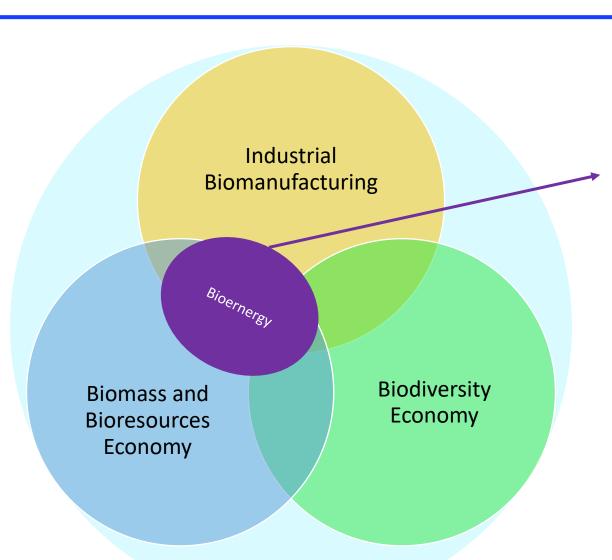
(under elaboration)

#### THE MULTIPLE BIOECONOMIES

Possible sectoral and thematic representation of the Brazilian bioeconomy (model under development)

#### POSSIBLE CARACTERIZATION OF BRAZILIAN BIOECONOMUES

- Sectorial
- Thematic
- Regionalization



#### **FUTURE BIOENERGY SCENARIO**

Expansion in the application/use of biodiversity, including new biomass and the development of enzymes and biological platforms based on Brazilian biodiversity.

New industrial (biorefineries) and scientific-technological capacities are necessary for the production of advanced biofuels and bioproducts with very high added value with high spillover potential and technological densification.

## SCIENCE, TECHNOLOGY AND INNOVATION STRATEGY FOR BIOECONOMY



(under elaboration)

#### **BIOBUSINESS SUPPORT**

Embrapii / Finep

#### SUSTAINABLE PRODUCTION

Adding Value in Biodiversity Production Chains

Integrated and Sustainable Production Systems

Regeneration of Forest and Degraded Areas

Sustainable Inputs and Bio-Based Inputs

Pollinators and Pollinizatiion

Blue Bioeconoomy

**Indigenous Bioeconomy** 

#### **BIOMANUFATURA INDUSTRIAL**

STI for Biorefineries

**Renewable Chemicals** 

**Food Future** 

Energy Transition and Efficiency - Bioenergy

#### **KNOWLEDGE MANAGEMENT**

ODBio / ECACV

*MCTI Ordinance nº 3.877/2020* 

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The MCTI BIOECONOMY PRODUCTIVE CHAINS PROGRAM aims to foster scientific research, technological development, and innovation for the promotion, aggregation, and retention of value in Brazilian biodiversity production chains, considering their sustainability and the improvement of the quality of life of the populations that depend on them. To this end, it focuses on developing new products, inputs, materials, and services from and for these chains, contributing to the sustainable development of populations in all Brazilian biomes.

(MCTI Ordinance No. 3,877, of October 9<sup>th</sup>, 2020).















*MCTI Ordinance nº 3.877/2020* 







#### AÇAÍ / CUPUAÇU

Small-scale food factories: Production of dehydrated and powdered foods; Renewable energy (photovoltaic, solar and biomass); **Good Production Practices.** 

#### R\$ 2,5 millions



#### **PIRARUCU**

Floating processing unit; State Inspection Service – SIE; Social technologies, renewable energy, and local materials; **Good Production Practices.** 

R\$ 2,2 millions



Desenvolvimento de bioprodutos; Padronização comercial do óleo; Identificação dos princípios ativos (Molecular Power House - CNPEM); Boas Práticas de Produção.

R\$ 1,8 millions



R\$ 6,5 millions

**Pilot-projects** 

#### **OBJECTIVES**

Science, Technology, and Innovation to solve bottlenecks and take advantage of opportunities

Aggregation and retention of values by communities

Regularization, certification, and access to markets

Development of new products, technologies, inputs, and services

> Circular Bioeconomy: use of waste and co-products

> > Sustainability



*MCTI Ordinance nº 3.877/2020* 





#### **ELIGIBILITY AND SELECTION CRITERIA**

(Defined by the Program Management Committee - SEPEF Ordinance No. 4,606/2021)

**IMPACTS** 

**SUSTAINABILITY** 

**INNOVATION** 

**INSTITUTIONAL** 

**SOCIAL** 

**ENVIRONMENTAL** 

**ECONOMIC** 

ENHANCEMENT OF SOCIOBIODIVERSITY

**CIRCULAR BIOECONOMY** 

NATURAL CAPITAL

SUSTAINABLE DEVELOPMENT GOALS

NEW BIOPRODUCTS, INPUTS, AND BIOMATERIALS

**VALUE ADDED BY STI** 

**MARKET ACCESS** 

CONTINUITY

**PARTNERSHIP** 

INSTITUTIONAL ARRANGEMENT

*MCTI Ordinance nº 3.877/2020* 





### MCTI/FINEP/FNDCT PUBLIC CALLS: MCTI BIOECONOMY PRODUCTIVE CHAINS PROGRAM

#### **OBJECT**

Support for projects that promote solutions to scientific and technological bottlenecks faced in the structuring and strengthening of production chains based on Brazilian biodiversity

#### **TARGET AUDIENCE**

Scientific, Technological and Innovation Institutions (ICT), public or private, and Brazilian companies

#### **VALUE**

R\$ 121,5 million in non-reimbursable resources, being:

STI Support Notice: R\$ 99,0 million; and Economic Subsidy Notice: R\$ 22,5 million

#### **TERM**

36 months

#### **INFORMATION**

www.finep.gov.br

#### **CLOSED!**

SELECTED:
39 STI Support projects
12 Economic Grant projects



















MCTI Ordinance nº 3.877/2020





#### **TOTAL DE INVESTIMENTOS**

(Projetos-Pilotos e Chamadas Públicas)



- Projeto-Pilotos: R\$ 6,5 milhões
- Edital Fomento à ICT: R\$ 99,0 milhões; e
- <u>Edital Subvenção Econômica:</u> R\$ 22,5 milhões

**VALOR TOTAL: R\$ 128,0 milhões investidos** 

REGIÃO	PILOTOS	FOMENTO	SUBVENÇÃO	TOTAL
NORTE	2	3	1	6
NORDESTE	1	9	1	11
CENTRO-OESTE	0	9	3	12
SUDESTE	0	11	4	15
SUL	0	7	3	11
TOTAL	3	39	12	54



















## MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E INOVAÇÃO



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