



CNPq and Brazilian Participation in HECAP

International Collaborations

Ricardo Galvão

Conselho Nacional de Desenvolvimento Científico e Tecnológico

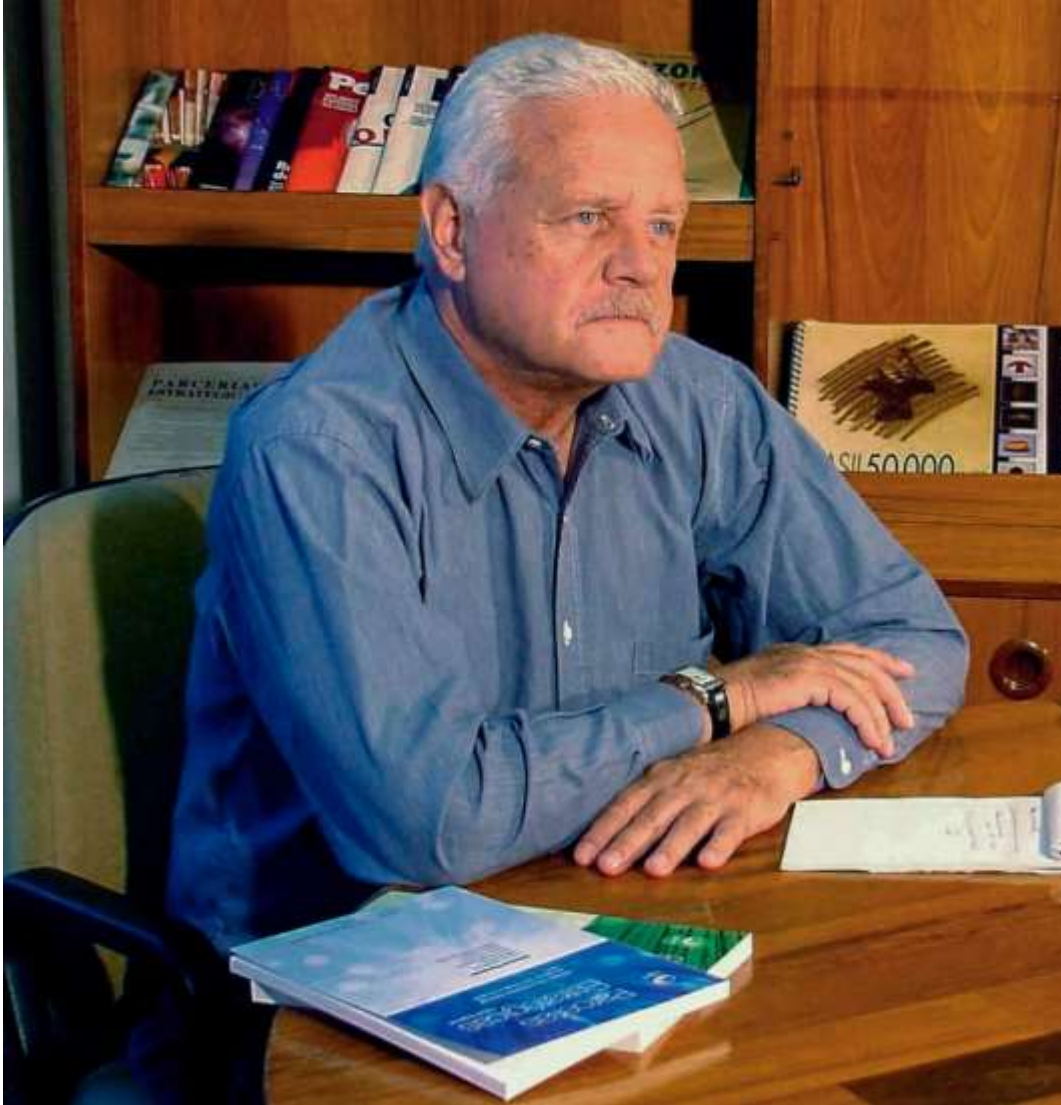
First Agreement with CERN February 1990 – Gerard Jacob



26 August 2024

- Following the 1990 Agreement, a special fund was created in the name of CNPq at CERN, to facilitate access to resources to pay M&O Costs for Brazilian researchers.
- Resources were made available annually between 1994 and 1996, totaling US\$1,960,653.44 and exhausting in September 2001.
- Simultaneously, a Memorandum of Understanding was signed in September 1999 involving CNPq and the Physics Institute of the Federal University of Rio de Janeiro, on the Brazilian side, and CERN, particularly in the ATLAS collaboration.
- However, a secure instrument for permanent participation of Brazilian scientists in CERN was still missing.

Cooperation Agreement September 2006 – Erney de Camargo



In October 2006, CERN sent two proposals for Terms of Adjustment to CNPq: one regarding the participation and training of Brazilian students and another regarding the participation of Brazilian institutes and universities in CERN collaborations.

- Training of Brazilian students carried out in the ALICE, ATLAS, CMS and LHCb experiments. Participation of
- Brazilian students in their Academic Training and Summer School Programs, subject to the establishment of annual quotas between CNPq and CERN.
- The total length of stay of each student at CERN from 6 to 36 months. Training must be part of the thesis work.
- CNPq responsible for selecting candidates and financing travel and stay at CERN.

Payment Regularization 2012 - Glaucius Oliva



26 August 2024

Fixed Contribution: US\$ 180,000.00/year

Agreement 2016 - Mario Neto Borges,



26 August 2024

Renewed Agreement

PROTOCOL

to

THE CO-OPERATION AGREEMENT
DATED 13 SEPTEMBER 2006

between

O CONSELHO NACIONAL
DE DESENVOLVIMENTO CIENTIFICO
E TECNOLÓGICO DO BRASIL (CNPq)

and

THE EUROPEAN ORGANIZATION
FOR NUCLEAR RESEARCH (CERN)

concerning

Participation by Scientific Institutes and Universities
from Brazil in the High-Energy Particle Physics Experiments
at CERN

2016

- Collaborations

UFRJ → ATLAS

CBPF, UERJ, UFRJ, UNESP → CMS

CBPF, UFRJ → LHCb;

USP, UNICAMP → ALICE

UFRJ → ALPHA

- A fund was created for CNPq to deposit the financial resources necessary for the execution of the activities of Brazilian researchers in the experiments.
- The expenses for the experiments include “Maintenance and Operation Fees” and “Development Expenses”.
- CNPq also assumes the expenses for travel and maintenance of the researchers who will participate in the experiments at CERN.

Brazil to become an Associate Member State of CERN

On 3 March 2022, CERN Director-General Fabiola Gianotti and Brazilian Minister for Science, Technology and Innovation Marcos Pontes signed an agreement admitting Brazil as an Associate Member State of CERN

12 APRIL, 2022



CERN Director-General Fabiola Gianotti and Brazilian Minister for Science, Technology and Innovation Marcos Pontes. (Image: CERN)

Done in duplicate, in the English, French and Portuguese languages, it being understood that in case of issues of interpretation or conflict between the versions, the English version shall prevail.

Signed in Geneva, 3 March 2022.

FOR THE FEDERATIVE REPUBLIC OF BRAZIL

FOR THE EUROPEAN ORGANIZATION FOR
NUCLEAR RESEARCH (CERN)



Marcos Cesar Pontes
Minister of Science, Technology and Innovation



Fabiola Gianotti
Director-General of CERN

The Associate Membership to enter into force once Brazil has completed all necessary accession and ratification processes.

26 August 2024

Brazil becomes Associate Member State of CERN

Brazil has become the first Associate Member State of CERN in the Americas

22 MARCH, 2024



As Brazil becomes Associate Member State of CERN, the Brazilian flag is photographed along with the CERN flag (Image: CERN)

Message from Salvatore Mele – 31st May 2024
Senior Advisor, International Relations - CERN


We had been in touch in late 2023 in respect to the opportunity for CNPq and CERN to enter in a renewed agreement to reflect the new role of CNPq as the leading funding agency in a CERN Associate Member State.

This new agreement would also offer a 'clean slate' for the foundation of the continued contribution from CNPq in support of the experimental activity of the Brazilian research community at CERN.

I wish to inform you that earlier this week MCTI has suggested we initiate this process in earnest, in a call including CNPq Coordination for International Cooperation. This CNPq service has already received today a standard proposed draft agreement from our side.

26 August 2024



 Accelerating science
Accélérateur de science

 Accelerating science
Accélérateur de science

21st June 2024

Brazilian Contributions to CERN

		2025 Annual contribution	2025 Annual contribution	2025 Maximum contribution acc. to the corridor principle (*)
Country		In CHF 2024 prices	In %	In CHF 2025 prices
Member States	Austria	27 217 900	2.22742%	27 762 250
	Belgium	34 365 300	2.81152%	35 042 400
	Bulgaria	4 888 400	0.40005%	4 986 150
	Czech Republic	14 807 450	1.21179%	15 103 600
	Denmark	23 653 250	1.93570%	24 126 300
	Finland	16 346 850	1.33777%	16 673 800
	France	156 880 600	12.83857%	160 018 200
	Germany	254 713 750	20.84491%	259 808 050
	Greece	12 225 600	1.00050%	12 470 100
	Hungary	8 982 550	0.73510%	9 162 200
	Israel	28 901 850	2.36523%	29 479 900
	Italy	119 487 150	9.77842%	121 876 900
	Netherlands	59 771 700	4.89151%	60 967 150
	Norway	30 748 450	2.51635%	31 363 400
	Poland	39 196 050	3.20767%	39 979 950
	Portugal	13 424 700	1.09863%	13 693 200
	Romania	16 710 000	1.36749%	17 044 200
	Serbia	3 596 450	0.29432%	3 668 400
	Slovak Republic	6 582 450	0.53623%	6 683 500
	Spain	83 864 950	6.86322%	85 542 250
Sweden	33 069 950	2.70633%	33 731 350	
Switzerland	47 108 400	3.85519%	48 050 550	
United Kingdom	185 443 700	15.17606%	189 152 550	
Total Member States		1 221 947 450	100.0000%	1 246 386 350
Associate Member States in the pre-stage to Membership	Cyprus	1 119 450		1 141 800
	Estonia	1 533 900		1 564 600
	Slovenia	2 322 300		2 368 750
Total Associate Member States in the pre-stage to Membership		4 975 650		5 075 150
Associate Member States	Brazil	10 232 950		10 437 600
	Croatia	1 000 000		1 000 000
	India	16 348 250		16 715 250
	Latvia	1 066 250		1 066 250
	Lithuania	1 000 000		1 000 000
	Pakistan	2 053 850		2 094 950
	Turkiye	4 955 250		5 054 350
Ukraine	1 034 000		1 054 700	
Total Associate Member States		39 690 550		40 423 100
Grand TOTAL		1 266 613 650		1 291 884 600

Associate Member State Contribution
MCTI → CHF 10.232.950,00

Maintenance and Operational Costs
CNPq → US\$ 180,000.00

Contributions through RENAFAE (not
regular)
MCTI → CHF 611.000,00 (2022)

Pierre Auger Cosmic Ray Observatory





Brazil participates since the start, 1995, with financial support from CNPq and FAPESP

- Agreement CNPq – FOPAA 2009
(Fundación Observatorio Pierre Auger Argentina)
- Agreement CNPq – Ahuekna 2016
(Fundación Ahuekna)

Renewed in 2023, fixing annual contribution of CNPq at US\$ 60,000.00



PELO CONSELHO NACIONAL DE DESENVOLVIMENTO CIENTÍFICO E TECNOLÓGICO – CNPq:	PELA FUNDAÇÃO AHUEKNA
 Ricardo Magnus Osorio Galvão Presidente	 Manuel Platino Presidente

LBNF-DUNE Project



LBNF-DUNE PROJECT



International collaboration project, hosted at Fermilab. Brazilian participation led Unicamp. Main objectives are Neutrino Physics and to elucidate the mysteries of the fundamentals of particle physics, the origin and basic mechanisms of the Universe.

The specific goal is the mass production, purification, and regeneration of Liquid Argon (LAr) for the cryogenic services of the *Long-Baseline Neutrino Facility*(LBNF) Project of the *Deep Underground Neutrino Experiment*(DUNE) - LBNF/DUNE.

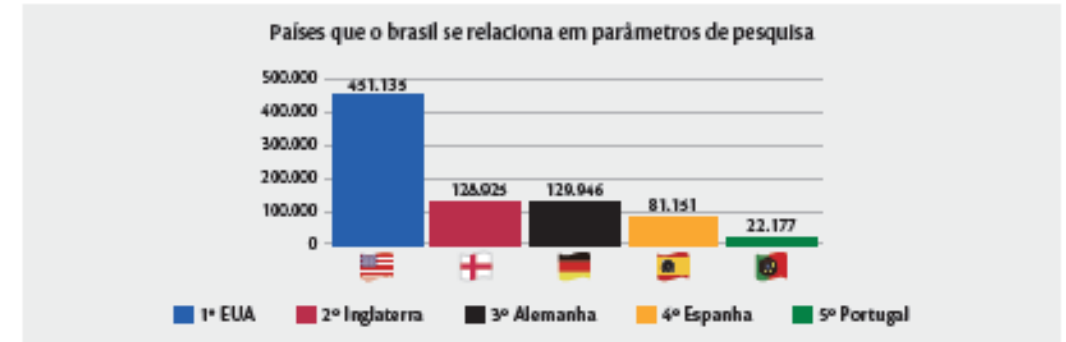
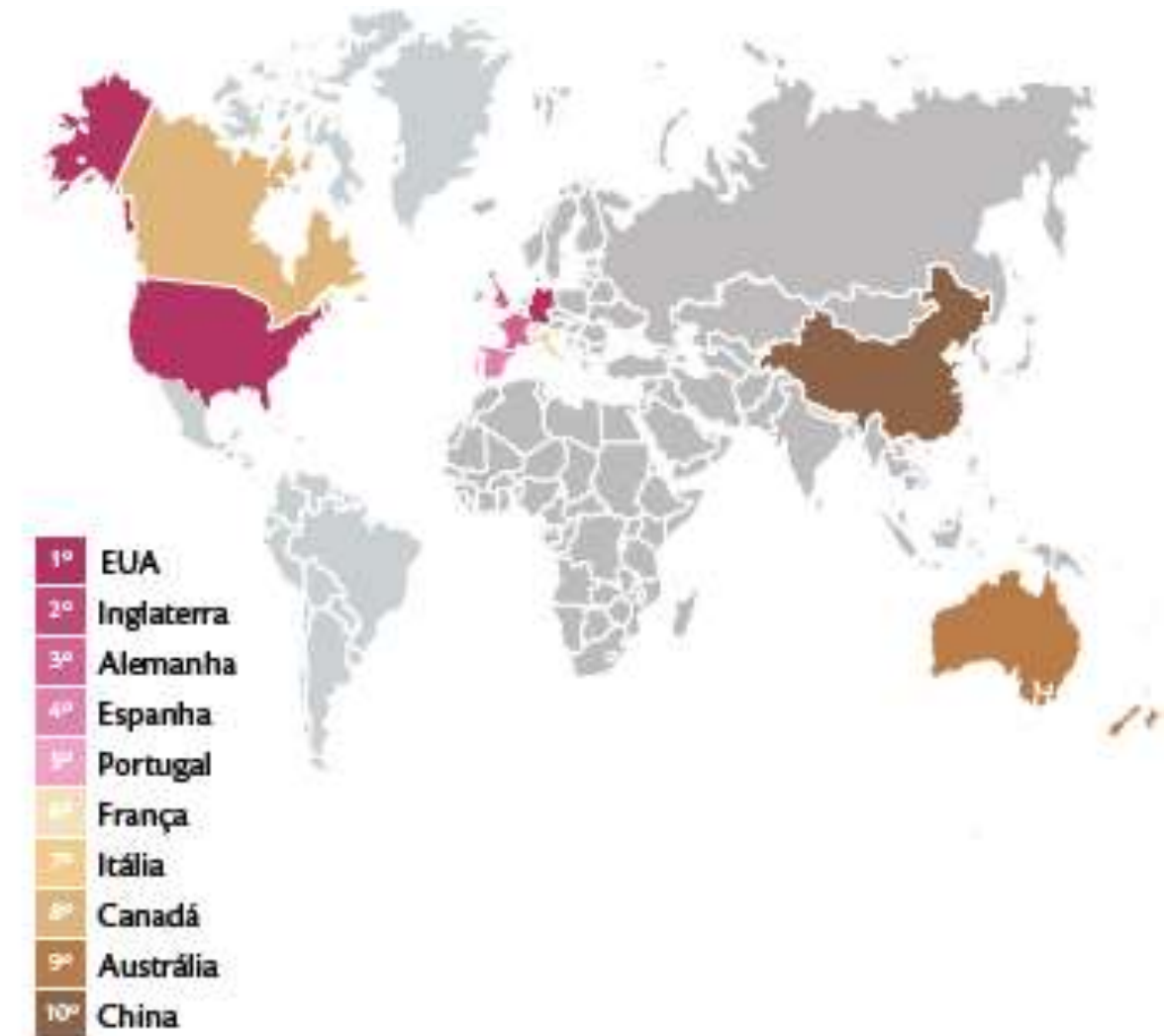
Support FNDCT through two strategic programs

PROGRAM 2 – Program of innovation for industrialization on sustainable basis–
Further Innovation Brasil

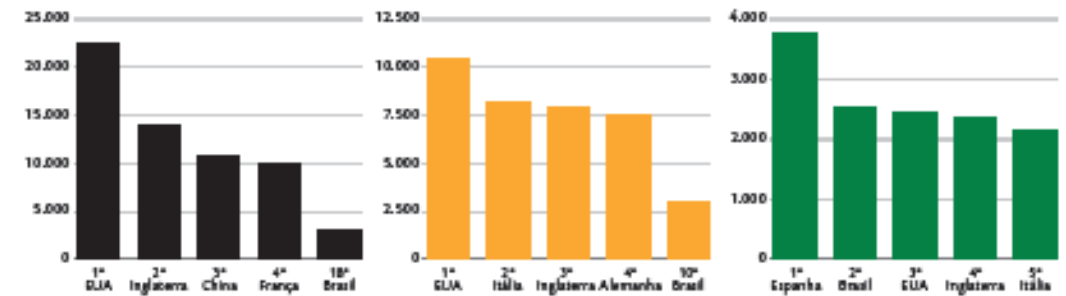
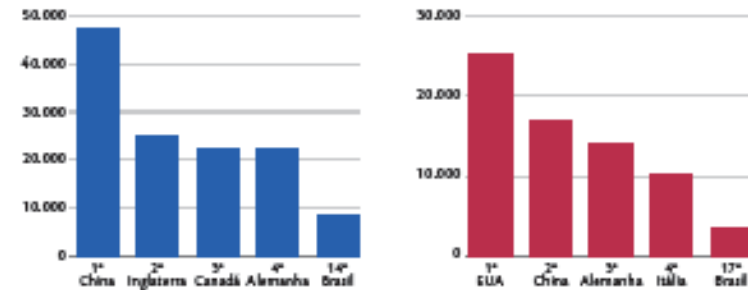
Action Route: 8. Support of international cooperation for industrial innovation



International Scientific Collaborations of Brazil 2022



TOP países que cada país se relaciona relacionam:



Boletim Anual OCTI 2022 - CGEE

Memorandum of Understanding |

between

THE NATIONAL RESEARCH COUNCIL (“CNR”)

Piazzale Aldo Moro 7 – 00185 Rome, Italy

and

**THE NATIONAL COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL
DEVELOPMENT (“CNPq”)**

St. de Habitações Individuais Sul Conjunto B - Lago Sul, Brasília - DF, Brasil

(Each shall be referred to as “Party” and together “the Parties”)

The Parties wishing to promote the implementation of cooperative programs in the areas of mutual interest, have agreed upon the following:

26 August 2024

Memorandum of Understanding between ICTP and CNPq

(under negotiation)

- ICTP-SAIFR
 - Scientific computing
- Synchrotron-related physics
 - Climate modelling
 - Quantitative Ecology
- Other scientific areas of common interest