

WOMEN IN SCIENCE IN BRAZIL: Opportunities for collaboration with the EU

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Researchers included in the CNPq's Research Groups Database, by gender, 2000-2016

Year	Total	Male	%	Female	%
2000	48.781	27.394	56,3	21.252	43,7
2002	56.891	30.859	54,3	26.022	45,7
2004	77.649	41.172	53,3	36.080	46,7
2006	90.320	46.758	52,0	43.171	48,0
2008	104.018	52.957	50,9	51.001	49,1
2010	128.892	64.712	50,3	63.956	49,7
2014	180.262	90.125	50,0	90.068	50,0
2016	199.566	99.014	49,6	100.514	50,4

- Women constitute 50% of the researchers included in CNPq's database
- In the last 15 years, the percentage of women researchers in CNPq's database increased 7 percentage points

Source: Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) - Diretório dos Grupos de Pesquisa.

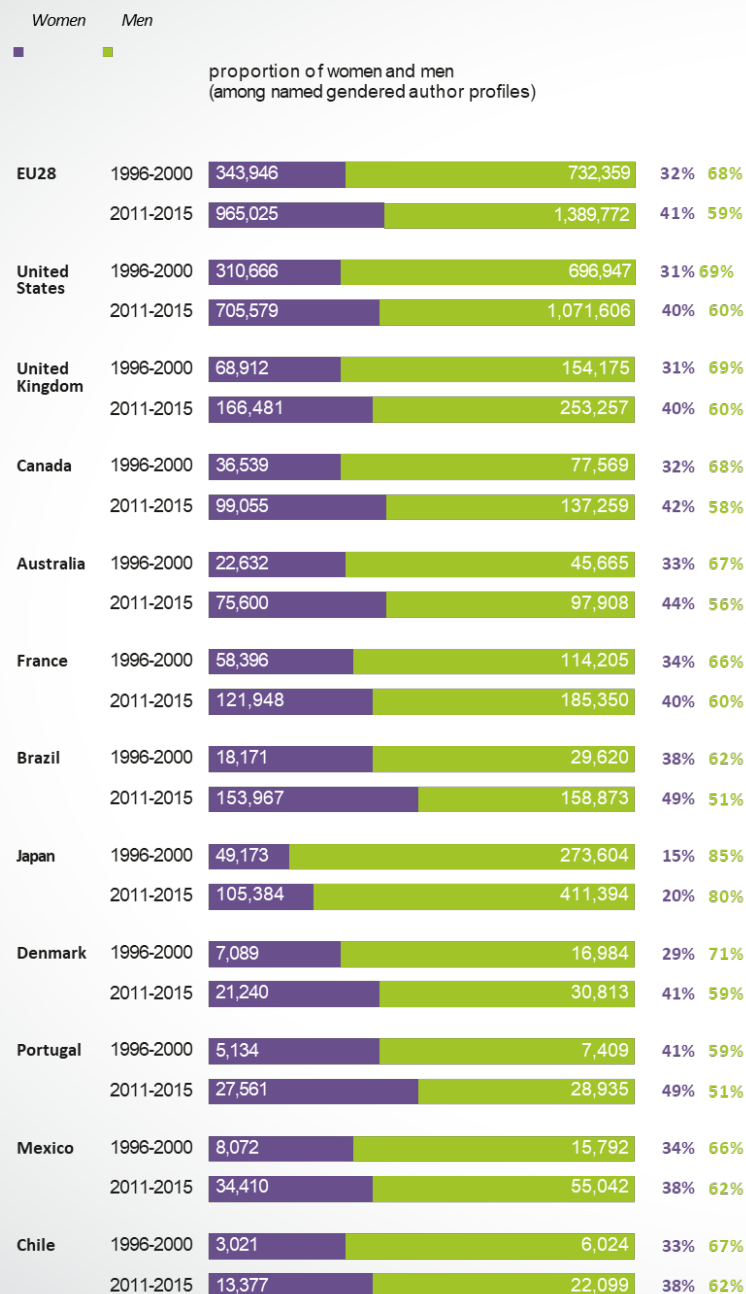
<http://lattes.cnpq.br/web/dgp/por-sexo-e-idade>

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Figure 1.1 — Proportion and number of researchers by gender (among named and gendered author profiles) for each comparator and period, 1996–2000 vs. 2011–2015.

Sources: Scopus, Genderize, NamSor, and Wikipedia



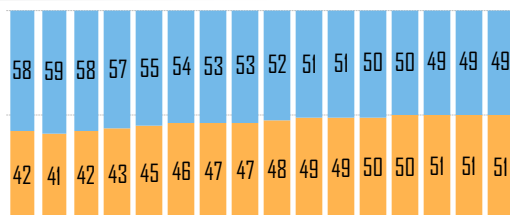
- Brazil is one of the countries with the largest percentage of women researchers
- However, women researchers are unevenly spread across areas

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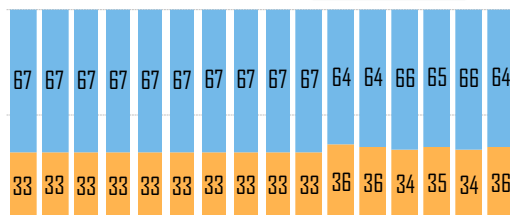


Percentage distribution of the total number of CNPq scholarships-year granted (country + abroad), by large area according to the researcher gender, 2001-2016

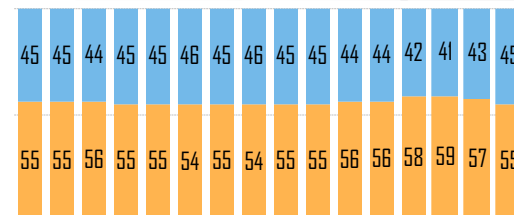
AGRARIAN SCIENCES



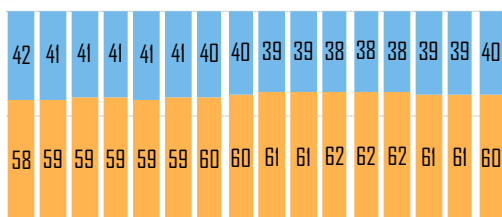
EXACT AND EARTH



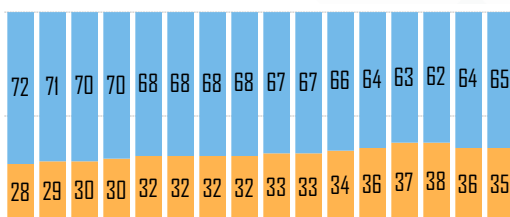
APPLIED SOCIAL SCIENCES



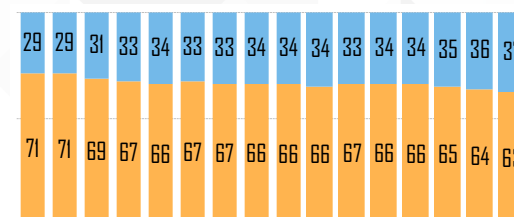
BIOLOGICAL SCIENCES



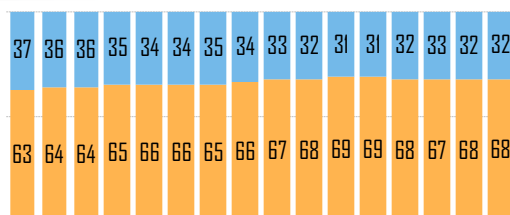
ENGINEERING



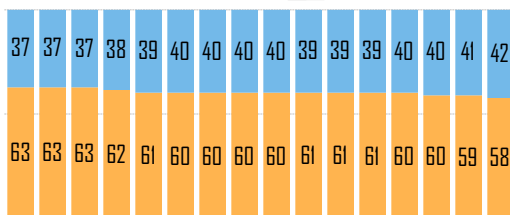
LINGUISTICS, LETTERS AND ARTS



HEALTH SCIENCES



HUMANITIES



Female Male

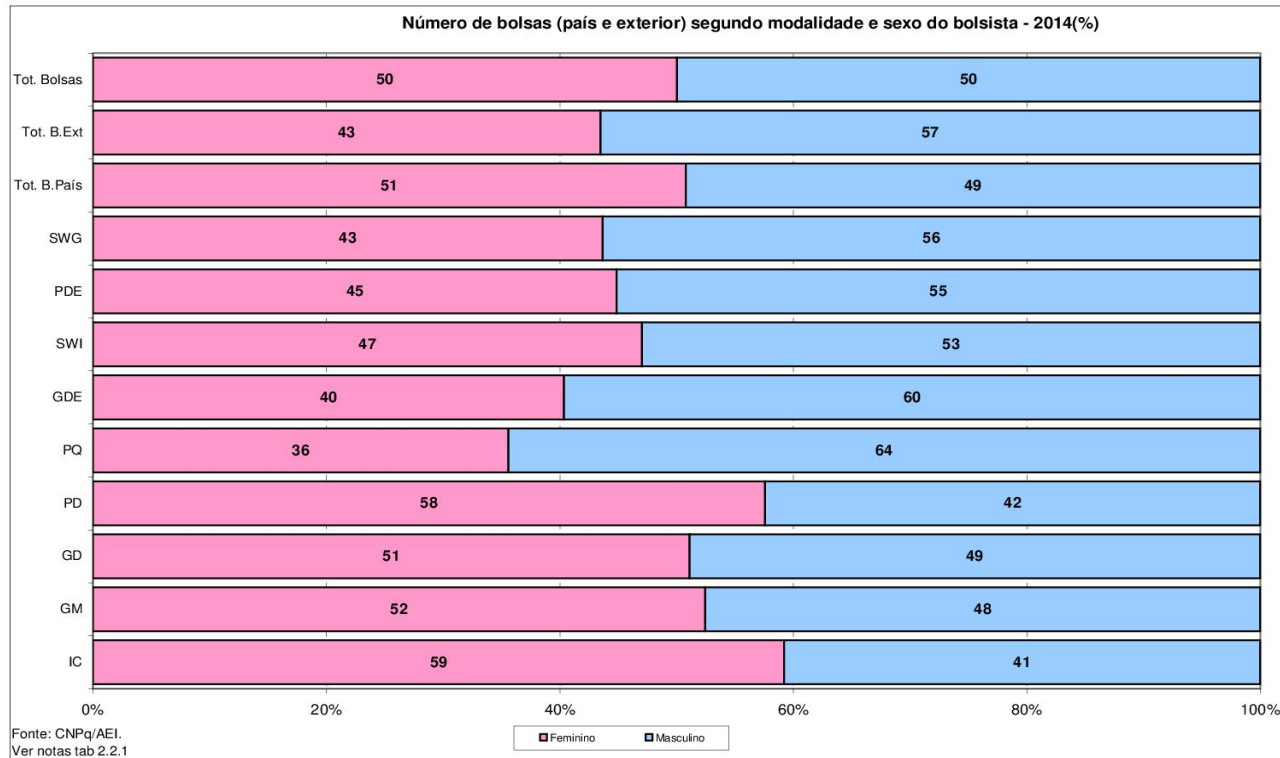
- Brazilian women researchers tend to work in the biomedical and humanities fields instead of hard sciences

Source: Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)

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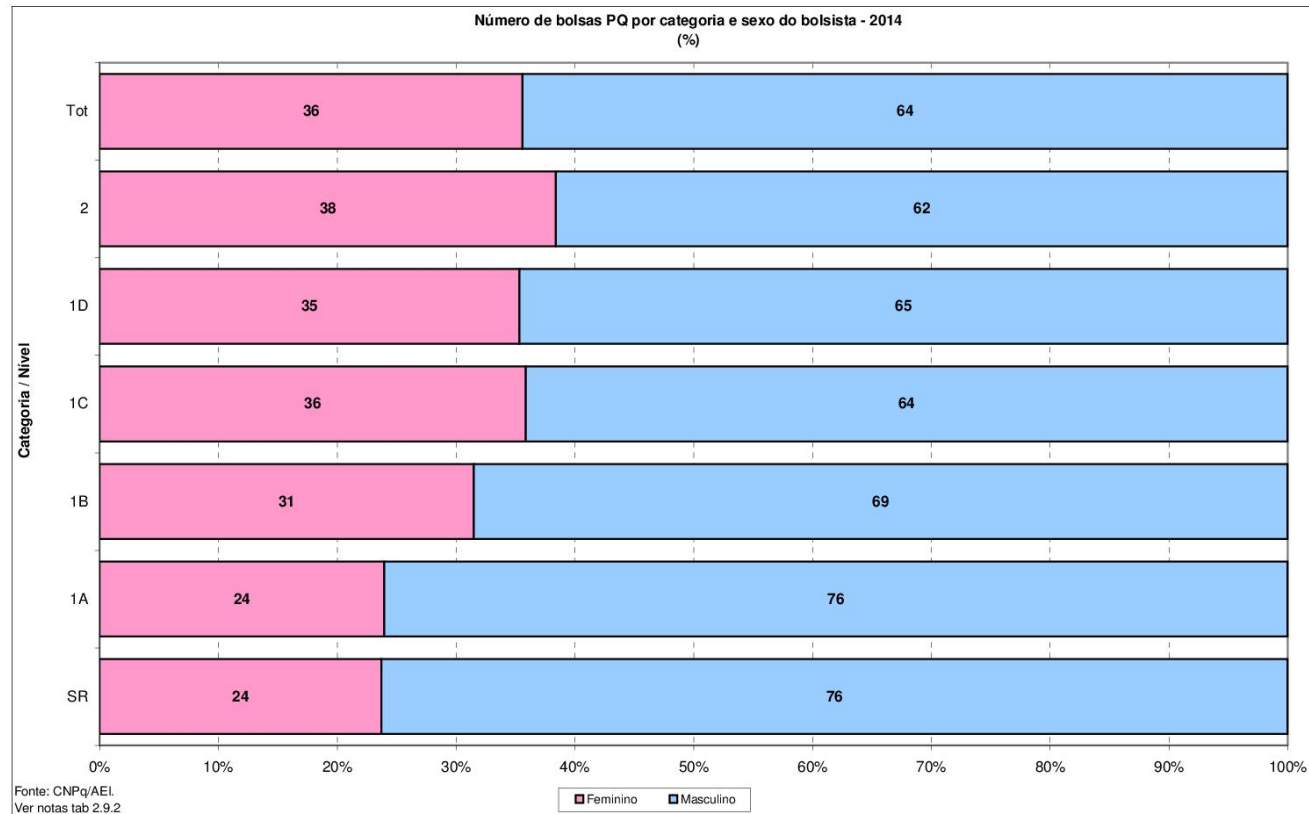


Women participation in CNPq fellowships



- Although women are the majority of researchers at all levels (scientific initiation, master, Ph.D. and post doc), they are less international mobility and represent only 36% of the total of Research Productivity Fellows, the most prestigious modality of CNPq fellowship

Women participation in CNPq's PQ fellowships



The percentage of women researchers decreases at the senior PQ stages and is only around 20% in the top levels (Senior and 1A)

Women and Science Program

Since 2005, the National Research Council (CNPq), in partnership with the Ministry of Science and Technology, Ministry of Education and Secretariat for Women Policies, runs the program Women and Science



The program aims

- to foster the participation of girls and women in Science
- to promote research on gender relations, women and feminism

Main Actions and Results



- 1) Call for research projects on Gender Relations, Women and Feminism Studies (4 editions)
- 2) Award: “Building Gender Equality” (11 editions)
- 3) Workshops: “Thinking Gender and Science” (2 editions)
- 4) Call for proposals: “Girls and Young Women in Hard Sciences, Engineering and ICT” (2 editions)
- 5) Dissemination initiatives: “Pioneer Women in Science” (7 editions) and “Young Women Researchers” (1 edition)

Call for Proposals on Gender Relations, Women and Feminism Studies



4 editions: 2005, 2008, 2010 and 2012

First-ever call in Brazil for supporting specific research on Gender Relations, Women and Feminism Studies

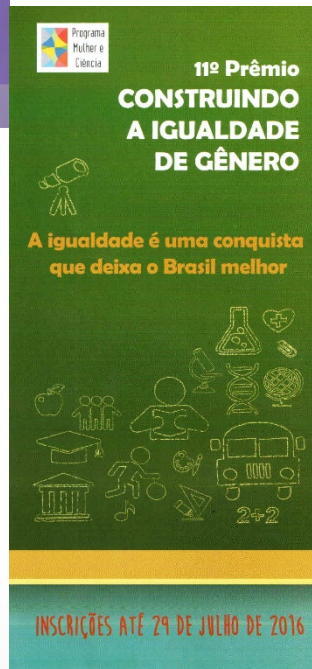
659 research projects were supported by a total investment of R\$ 21 million (US\$ 6,5 million)

Main result: strengthened research and capacity building in its thematic area

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Building Gender Equality Award



Target audience: High school, undergraduate and postgraduate students and schools

Competition categories:

Compositions, scientific papers and pedagogical projects currently in force on gender equality

Prizes: money, notebooks and tablets.

Participation: 29375 applicants ranging from high school to Ph.D. students participated in all editions of the Award.

• **Main Result:** Increased appeal of scientific careers and gender studies for students

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Workshops “Thinking Gender and Science”



Focus on discussing scientific career-related issues regarding gender equality and gender studies in general

Main Results:

Improved visibility of gender and science issues;

Increased cooperation with international organizations and agencies;

Recommendation: extension of CNPq grants for women in cases of childbirth or adoption



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Call for Proposals: “Girls and Young Women in Hard Sciences, Engineering and ICT”



Two editions: 2013 and 2018, total of R\$ 17 million (US\$ 4 million)

Main goal: to support young women towards pursuing careers in hard sciences, engineering and ICT in Brazil.

How: by giving fellowships to girls and science teachers and promoting scientific activities in schools in collaboration with academic institutions

Main results:

- closer contact among public high school students and academic institutions
- improved scientific acquaintance within target audience
- more interest raised in girls for scientific careers

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Programa
Mulher e
Ciência



Scientific dissemination initiatives

“Pioneer Women in Science”: CNPq published in its web page the stories of Brazilian women scientists who contributed, in a relevant way, to the advancement of scientific knowledge and to the formation and expansion of the scientific and technological system in Brazil



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Scientific dissemination initiatives

“Young women researchers”: CNPq published in its web page the story of 22 women, younger than 40 and PQ fellowship holders



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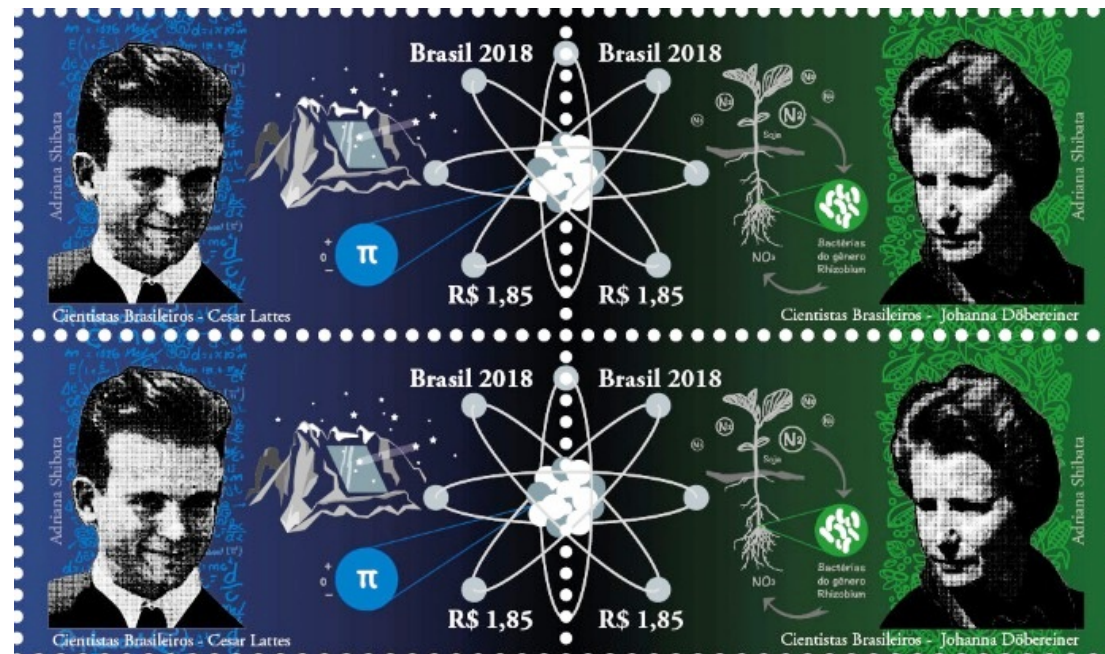


Programa
Mulher e
Ciência



Scientific dissemination initiatives

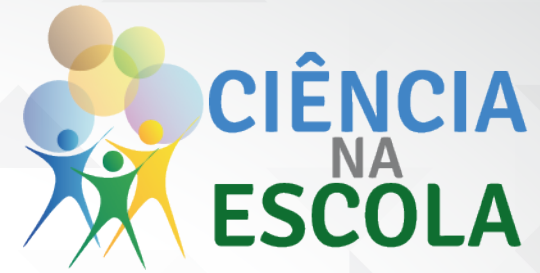
In 2018 MCTIC launched a commemorative stamp to pay tribute to Johanna Döbereiner, a famous Brazilian scientist who worked on biological nitrogen fixation in the soil



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PROGRAM SCIENCE IN SCHOOLS (2019-2021)



- Improve Science teaching with hands on approach in public elementary and high schools;
- Motivate students, with **special opportunities for young women**, to learn Science and pursue scientific careers;
- Reveal young scientific talents
- R\$ 120 million (US\$ 30 million)
- Actions:



- 1) Call for research projects on science education
- 2) Call for institutional projects to promote networking between universities, research institutes and public elementary and high schools
- 3) Training of Science teachers through distance learning
- 4) National Science Olympiads

Brazil-UK Affirmative Actions

In 2017 three State Funding Agencies launched a joint call with the British Council to fund Master studies in the United Kingdom for underrepresented groups in Science, **specially for women**



One success case was Isabelle Cristine da Costa, who successfully concluded the Master course and received another grant to pursue a full PhD in the UK

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Opportunities for EU-Brazil cooperation in R&I: open to the field of Gender Equality

- Existing support offered by Brazilian State and Federal Funding Agencies to join H2020 funded projects:
- Support is open to all fields of knowledge
 - Implementing Arrangement – CONFAP-ERC
 - Administrative Arrangement – EC-CONFAP-CNPq-FINEP

Cooperation opportunities for Brazil under Horizon 2020 and for the future Horizon Europe

**Equality between women and men
is a fundamental principle of the EU treaties.**

We all benefit when...



women scientists and
innovators can contribute to R&I
with their skills and knowledge



research includes sex and
gender analysis
(gender dimension)



results and innovations
are relevant to **both
men and women**



HORIZON 2020

Closing **gender** gaps in
Research and Innovation

#EU4Women

#WomeninScience



European
Commission

Doing Science and being a woman: still a challenge!

Humanity should not do without female talents in Science!
Gender equity in S&T is not a question of time and place!

Achievements:

- 1) Right to maternity leave in CNPq's Master and PhD fellowships
- 2) Women fair participation in CNPq's peer review committees
- 3) Trend to increase female leadership in STEM fields



Barriers:

- 1) Inequalities in opportunities and working conditions
- 2) Inequality of women's representativeness in decision making positions at academic institutions and governmental organizations

Lines of action:

- 1) Continue communication campaigns to change scientific stereotypes
- 2) Further improvement of women working conditions through policies to reconcile scientific careers and families
- 3) Affirmative actions to improve women qualification and to foster women careers in Science
- 4) Increase female presence in decision making boards of R&I institutions
- 5) Widen the "Women in Science" dimension in international cooperation schemes (i.e. Under H2020 or other opportunities)

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