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**FRANCE – BRAZIL
USP-COFECUB
Scientific impact of the program (2003-2023)**

MESRI-DAEI / MEAE

2024

<http://www.enseignementsup-recherche.gouv.fr>

GENERAL PRESENTATION OF THE PROGRAM

Creation : 1993

French plus Brazilian budget for mobilities : around 172 500 € / year

French budget around 80 000 euros/year

Number of mobilities per year : around 45

Number of new funded projects per year : around 6 between 2006 and 2023

From 2006-2023 :

309 applications submitted

78 projects funded

Campus France

- Information about the USP-COFECUB applications (2010-2023)
- List of mobilities 2004-2023

USP-COFECUB committee

- Information about the USP-COFECUB applications (2006-2009)
- List of mobilities 2004-2023

Survey *(conducted by the French Ministry of Higher Education, Research and Innovation and Ministry for Europe and Foreign Affairs)*

- Target : French Principal Investigators of selected projects between 2003 and 2016
- Survey **duration : 6 weeks between June and July 2018**
- **52%** response ratio *(38 respondents for 70 funded projects)*



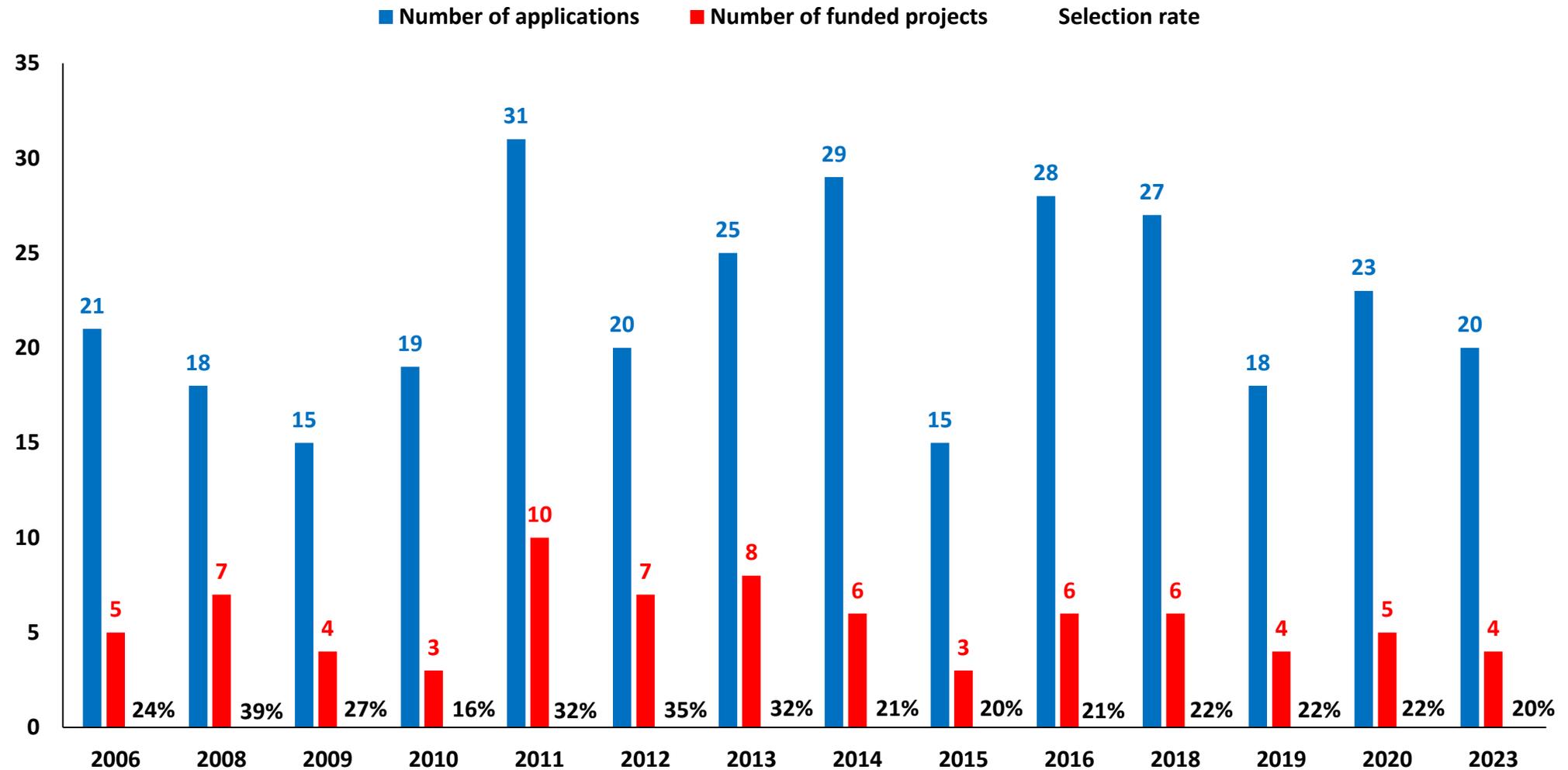
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STATISTICAL ANALYSIS 2006-2023

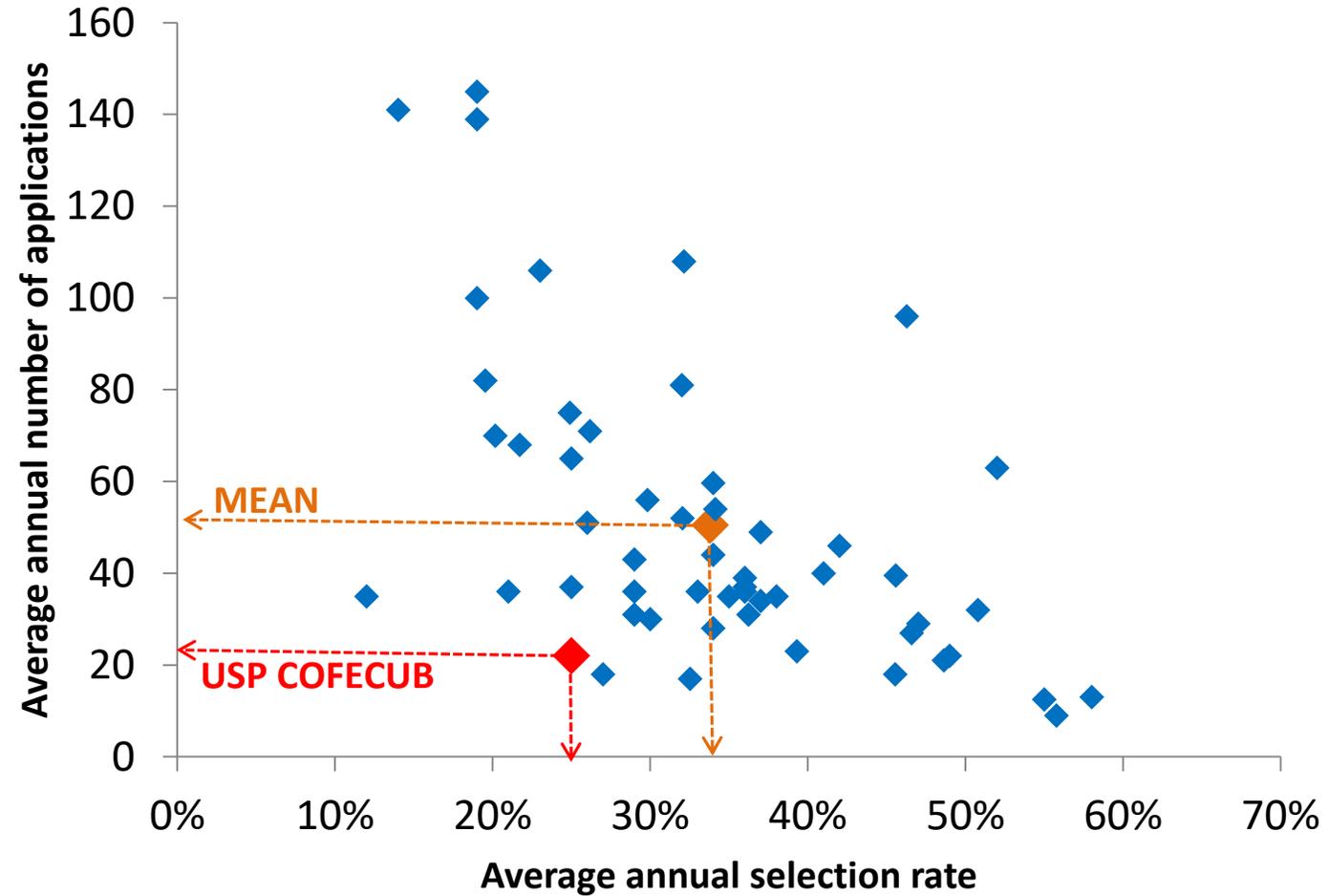
NUMBER OF APPLICATIONS AND SELECTION RATE

Average selection rate from 2006-2023: **25%**



NUMBER OF APPLICATIONS VS SELECTION RATE

(COMPARISON BETWEEN 53 DIFFERENT BILATERAL PROGRAMS)

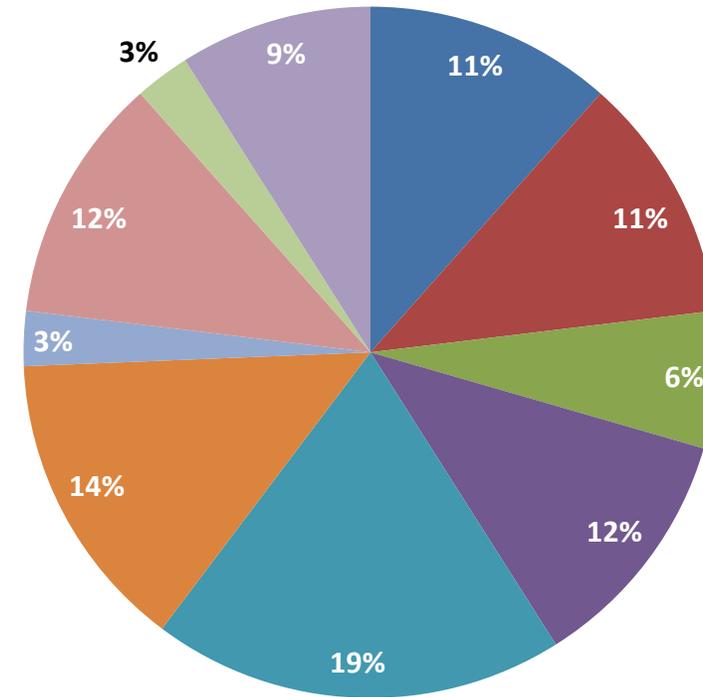
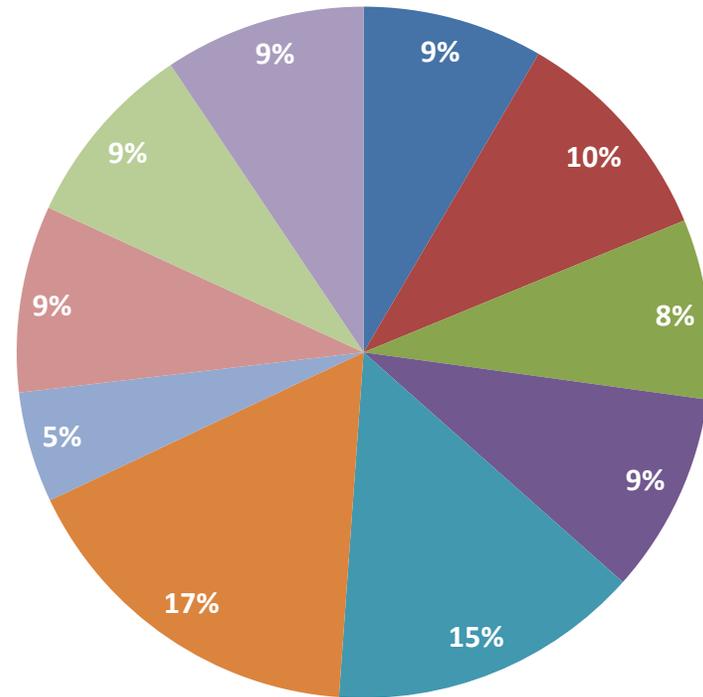


Average annual selection rate for 2006-2023 : 25% vs 34% mean
Average annual number of applications 2006-2023 : 22 vs 50 mean

SCIENTIFIC DOMAINS OF PROJECTS (2006-2023)

Number of applications : **309**

Number of funded projects : **78**

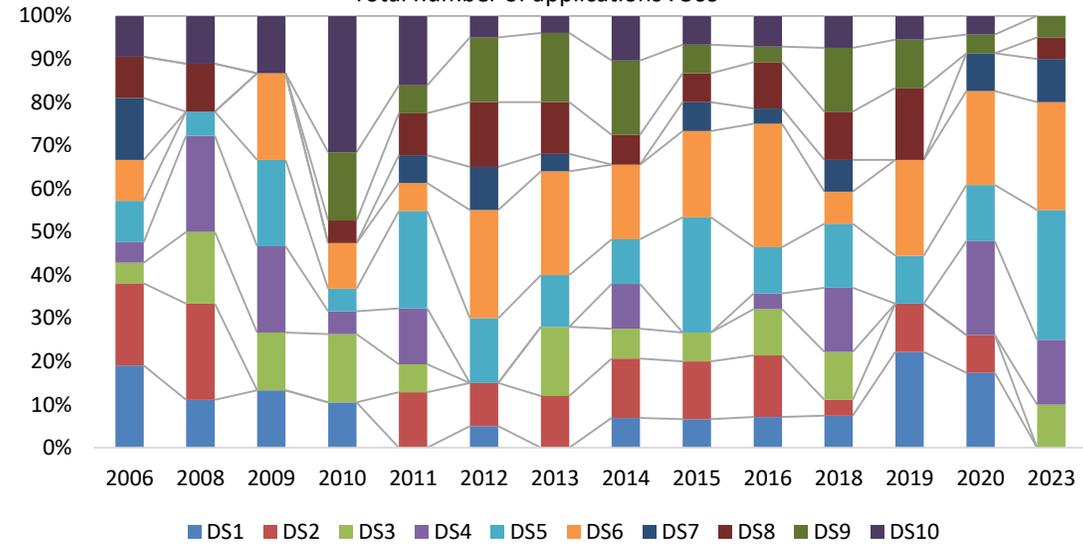


- | | |
|---|---|
| ■ Mathematics | ■ Physics |
| ■ Marine/Earth/Planet Sciences | ■ Chemistry |
| ■ Biology and Health | ■ Humanities |
| ■ Social Sciences | ■ Engineering Sciences |
| ■ Information Technology | ■ Agronomy/Ecology |

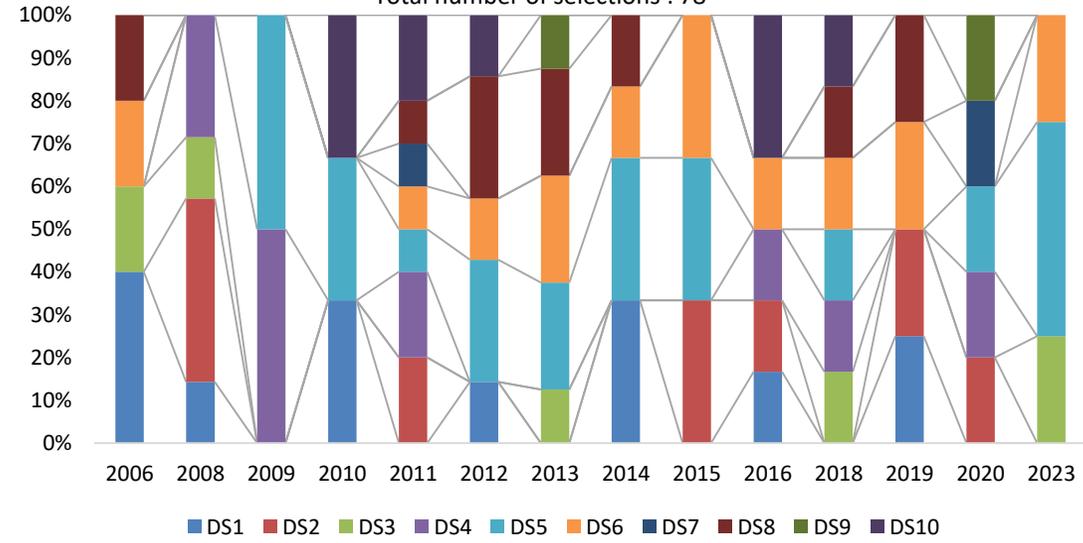
SCIENTIFIC DOMAINS : EVOLUTION 2006-2023

- DS1 : Mathematics
- DS2 : Physics
- DS3 : Marine, Earth, Planet sciences
- DS4 : Chemistry
- DS5 : Biology and Health
- DS6 : Humanities
- DS7 : Social sciences
- DS8 : Engineering sciences
- DS9 : Information technology
- DS10 : Agronomy/Ecology

Percentage of applications filed by scientific domain each year compared to all applications filed in each scientific domain
 Total number of applications : 309

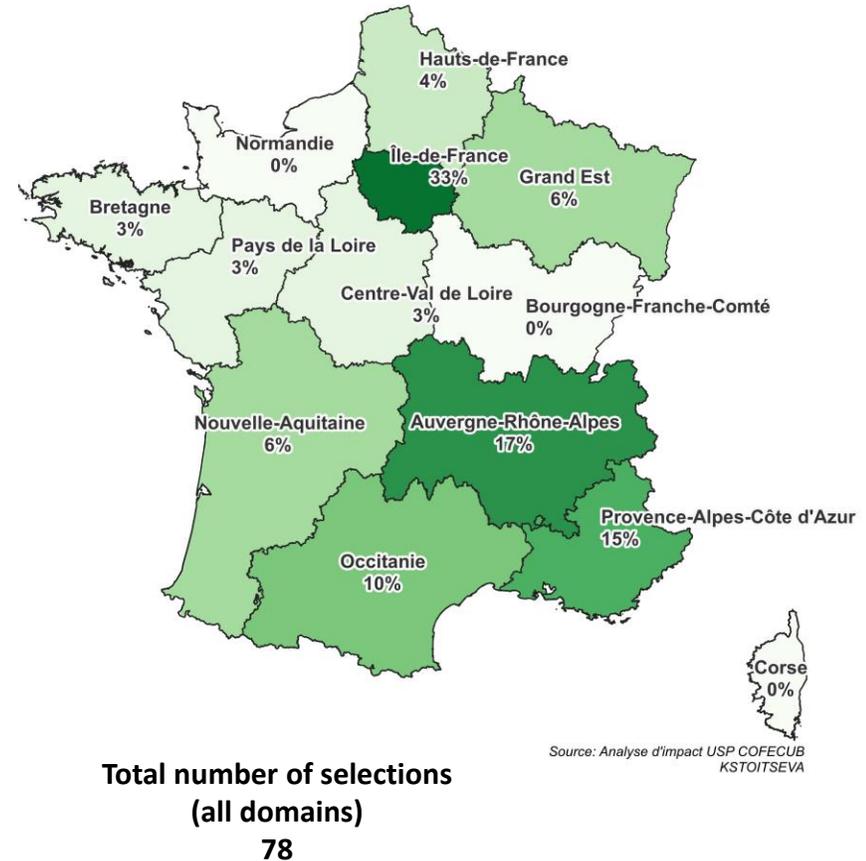
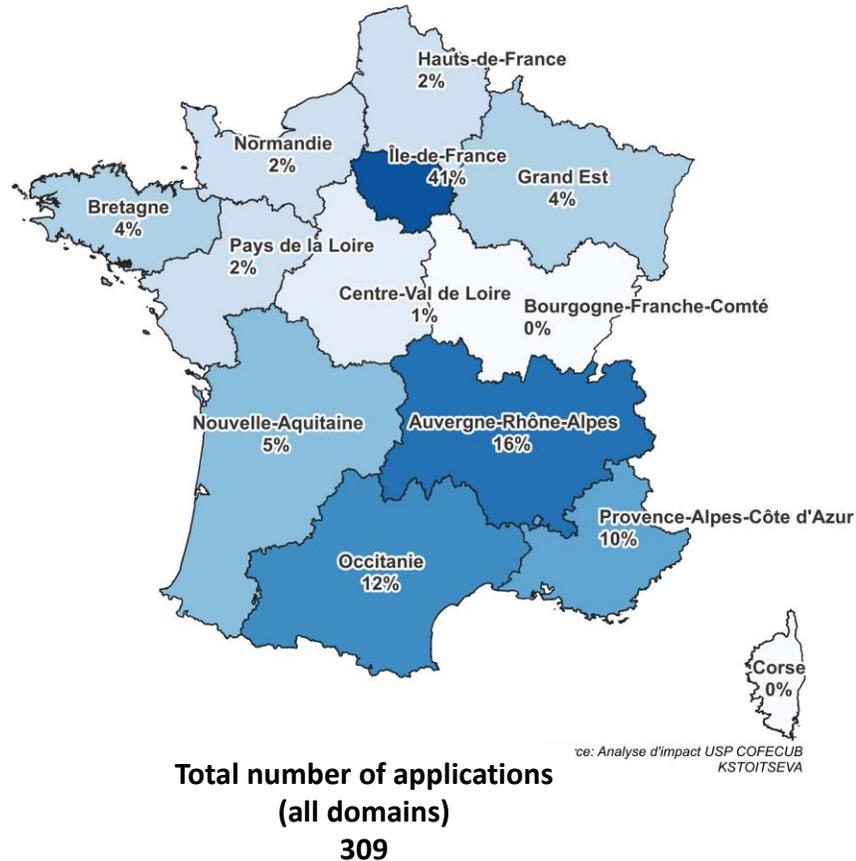


Percentage of selections filed by scientific domain each year compared to all selections filed in each scientific domain
 Total number of selections : 78



REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

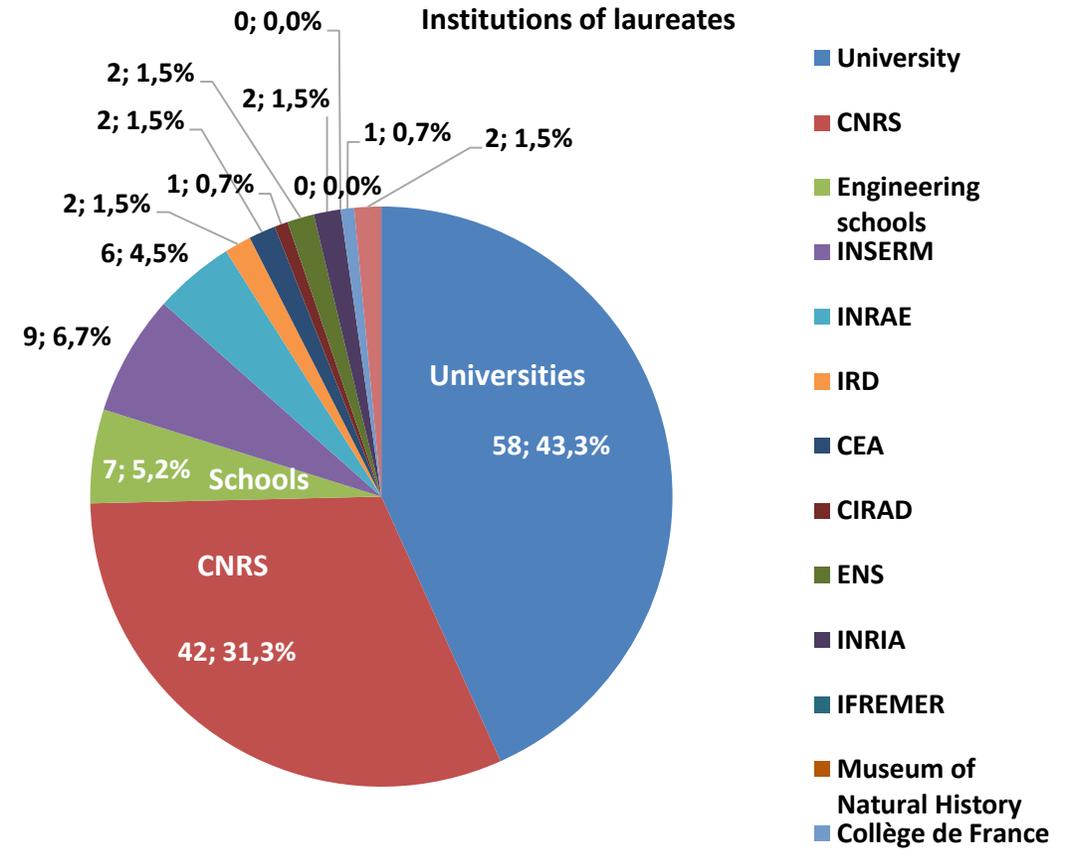
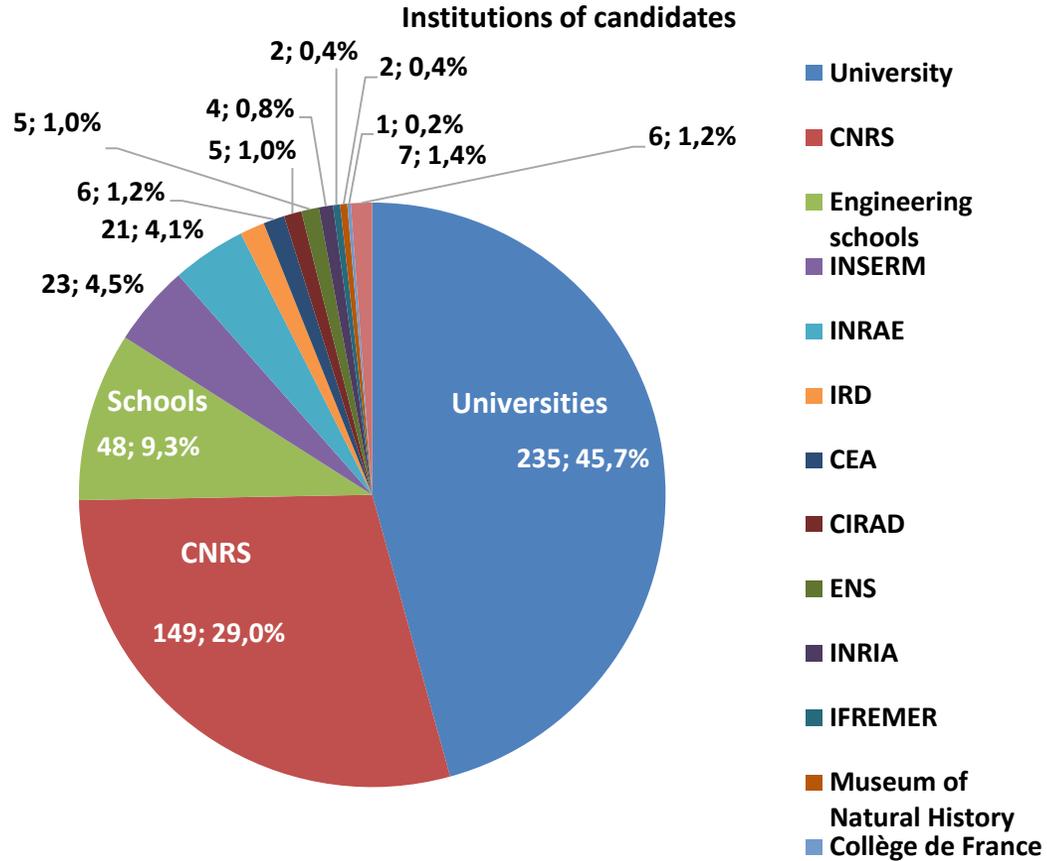
USP-COFECUB Regional percentages of applications and selections 2006-2023



The region Ile de France is the main contributor both for applications and selections followed by Auvergne-Rhône-Alpes

FRENCH PARTICIPATING INSTITUTIONS

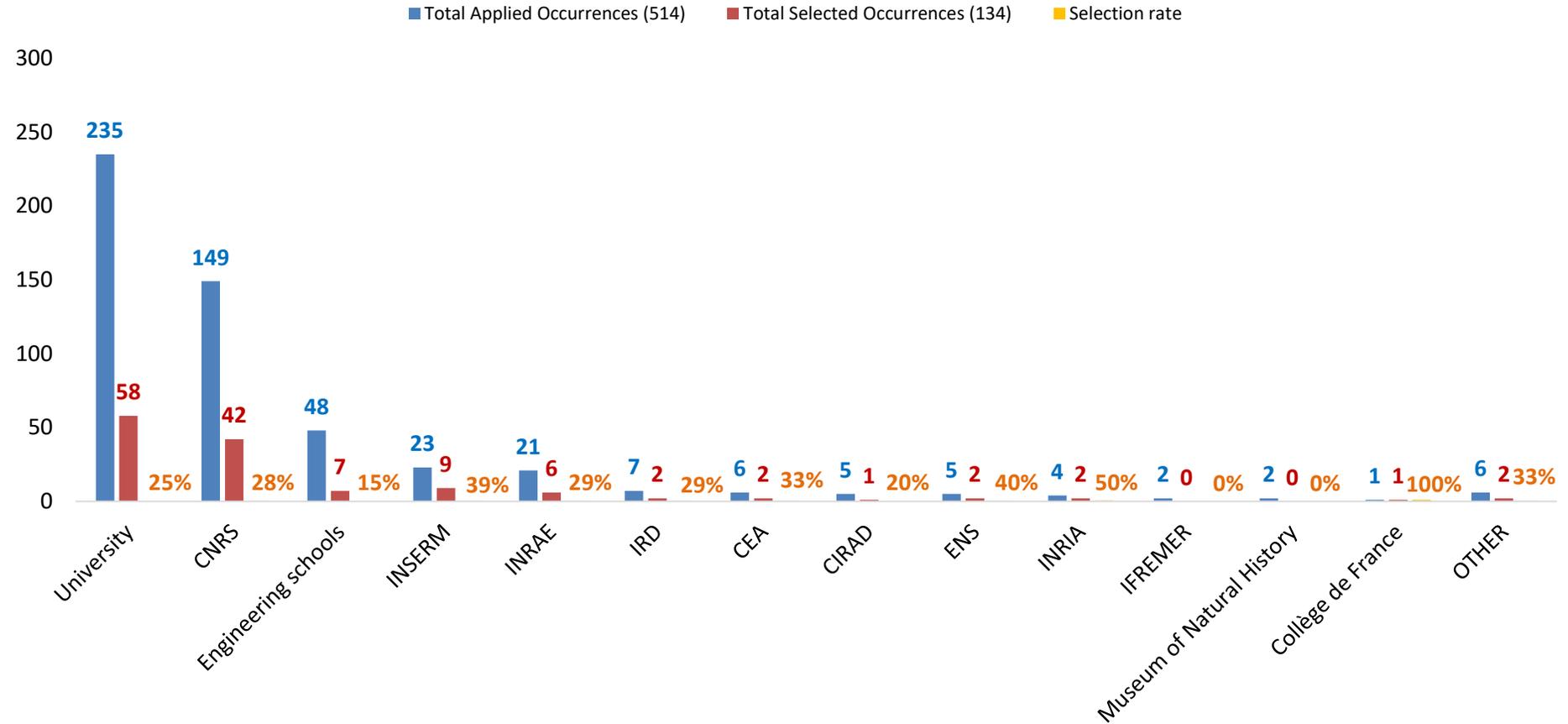
(SOURCE : DATA FROM THE COMMITTEE AND CAMPUS FRANCE)



FRENCH PARTICIPATING INSTITUTIONS

(SOURCE : DATA FROM THE COMMITTEE AND CAMPUS FRANCE)

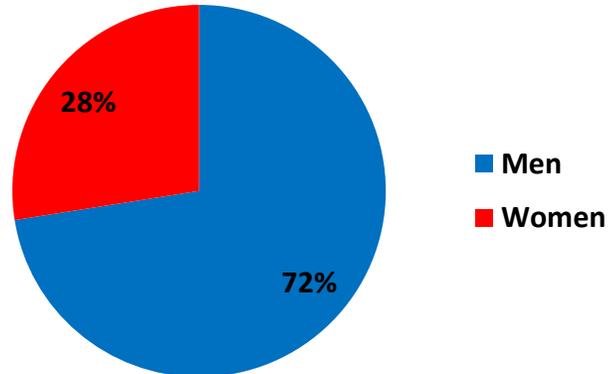
Number of occurrences for each institution



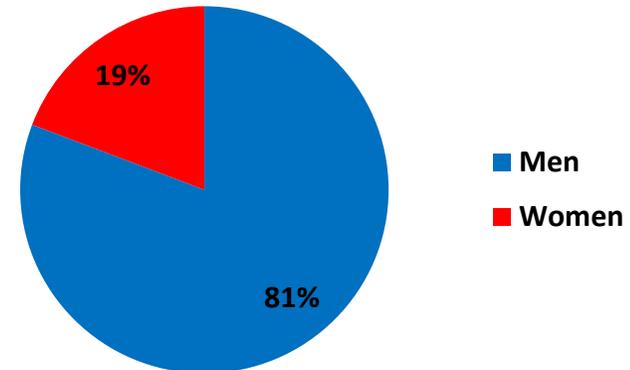
FRENCH PIS (PRINCIPAL INVESTIGATORS) : STATUS 2006-2023

(SOURCE : DATA FROM THE COMMITTEE AND CAMPUS FRANCE)

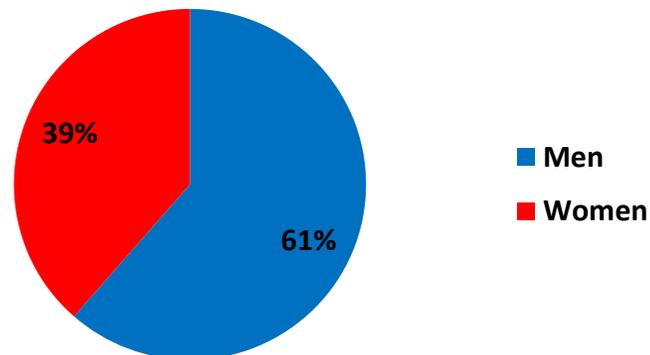
Applicants



Laureates



Selection rate

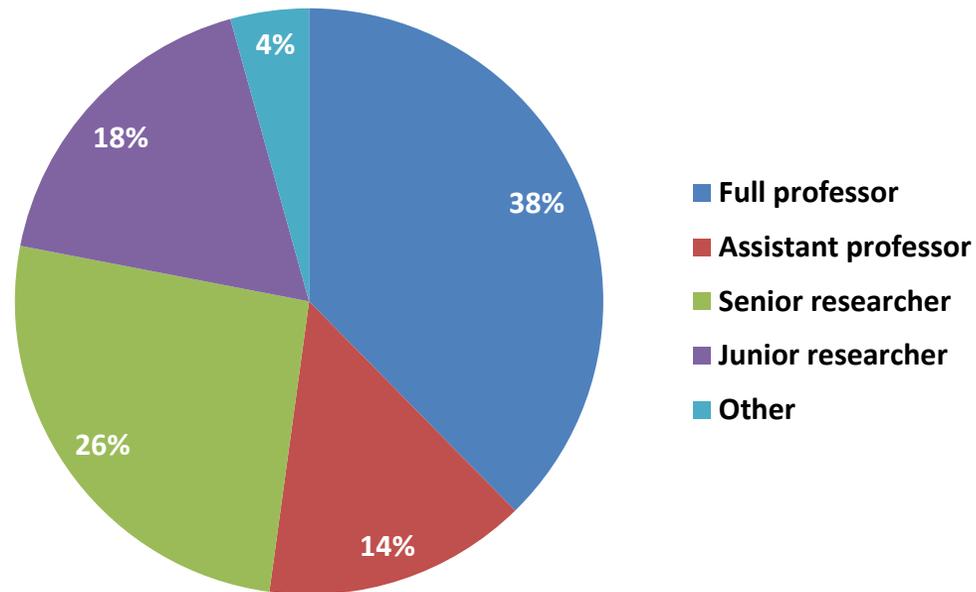


Data from 309 french applicants and 78 french laureates

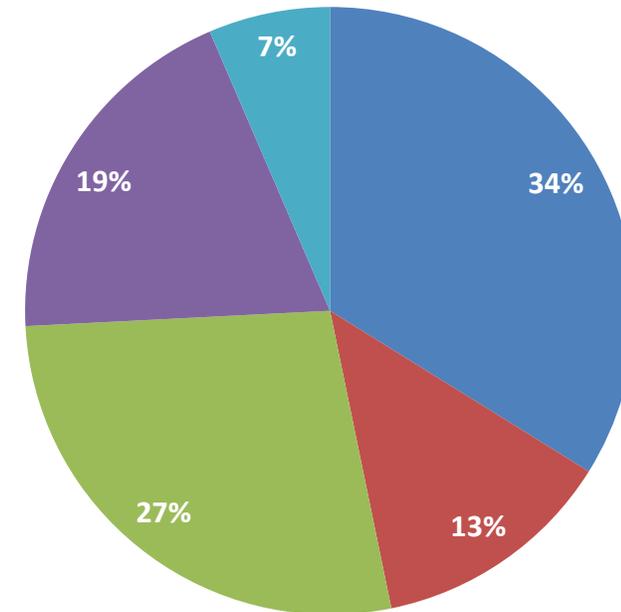
FRENCH PIS (PRINCIPAL INVESTIGATORS) : STATUS 2006-2023

(SOURCE : DATA FROM CAMPUS FRANCE)

Applicants professional status

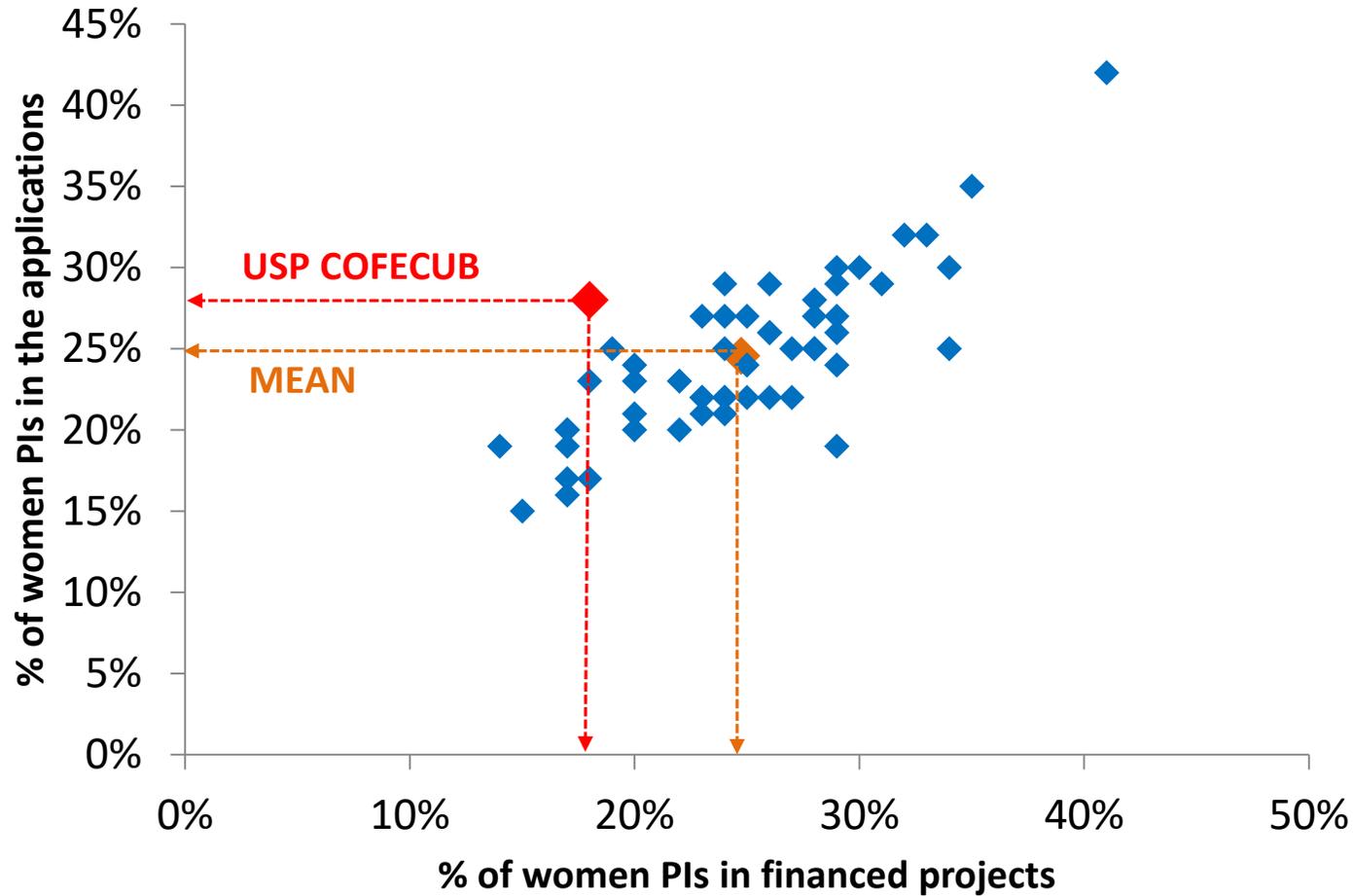


Laureates professional status



Data from 255 french applicants and 62 french laureates

IMPLICATION OF WOMEN (FRANCE) 2006-2023 (COMPARISON BETWEEN 53 DIFFERENT BILATERAL PROGRAMS)



% of women PIs candidates : **28% vs 25% mean**

% of women PIs laureates : **18% vs 25% mean**



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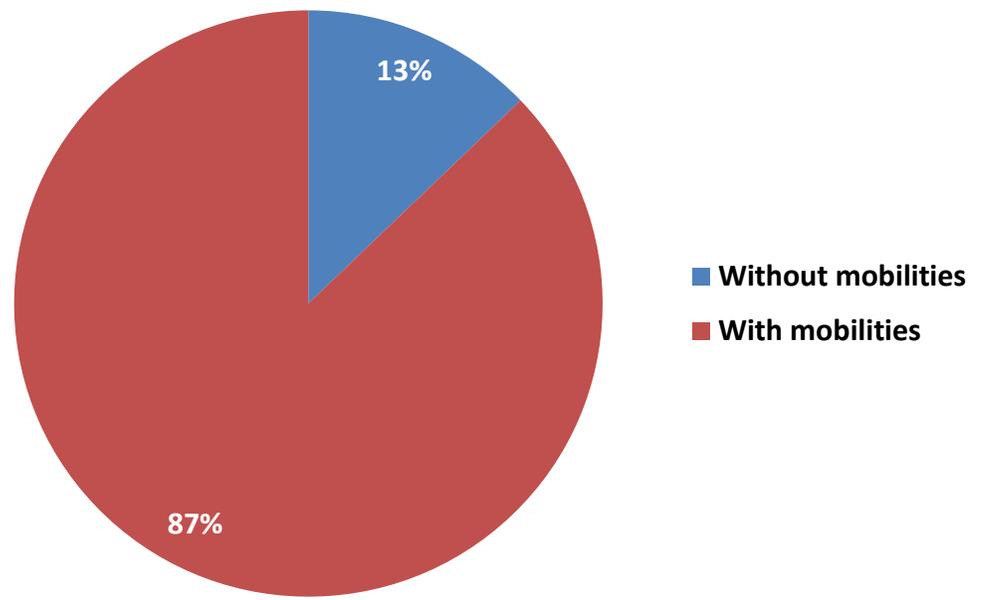
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MOBILITY

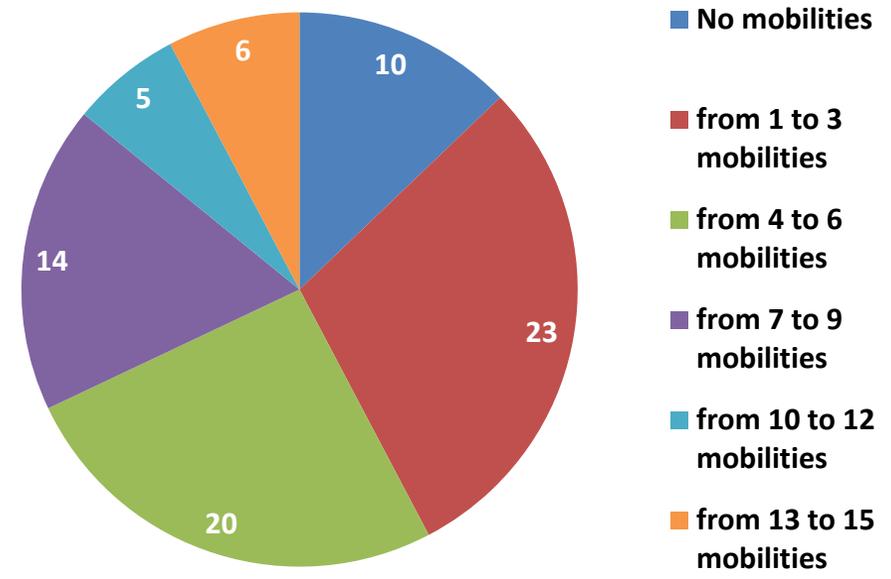
MOBILITIES 2006-2023

(SOURCE : DATA FROM CAMPUS FRANCE)

Projects with/without mobilities



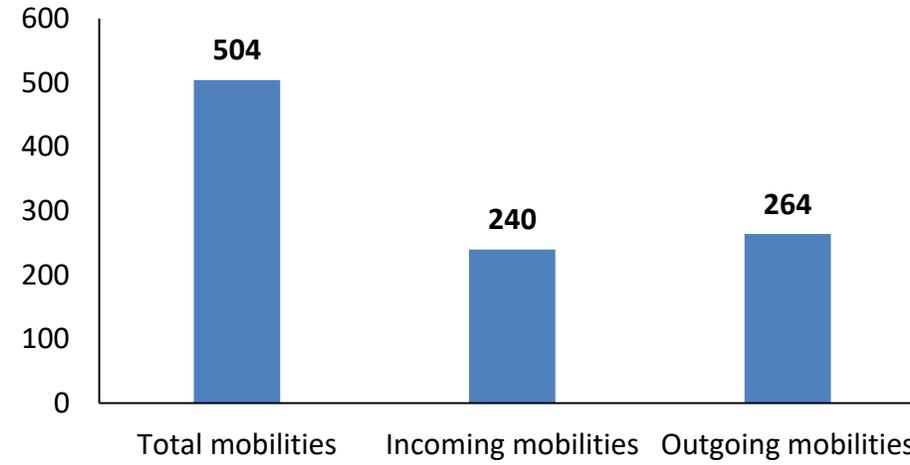
Number of projects vs number of mobilities



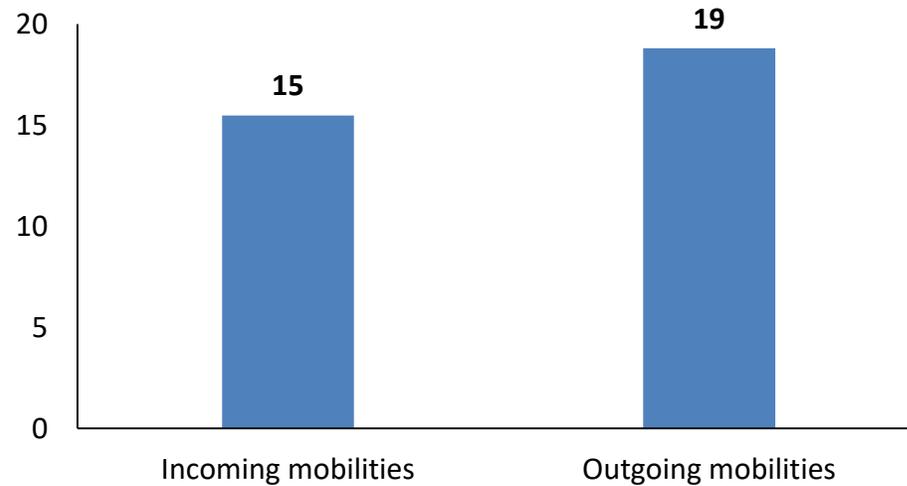
Data from 78 funded projects

MOBILITIES 2006-2023

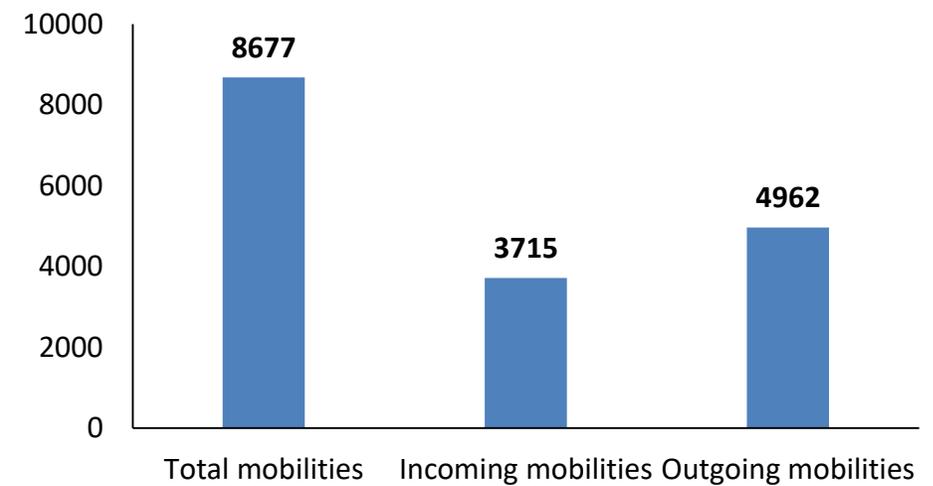
Number of mobilities



Average mobility duration in days



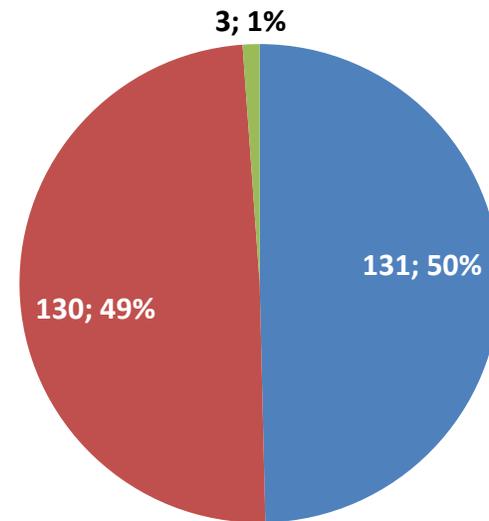
Total duration of mobilities in days



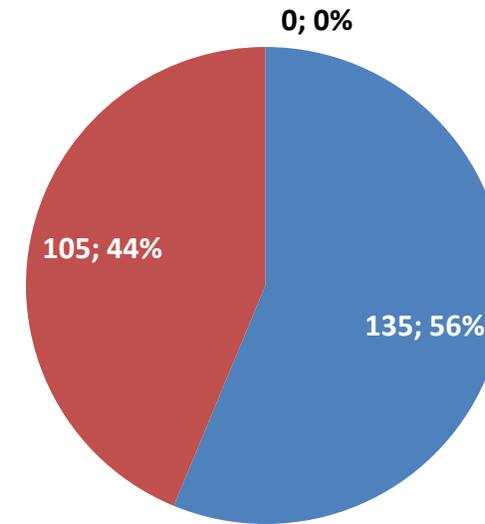
MOBILITY : DURATION (2006-2023)

(SOURCE : DATA FROM CAMPUS FRANCE)

France → Brazil



Brazil → France



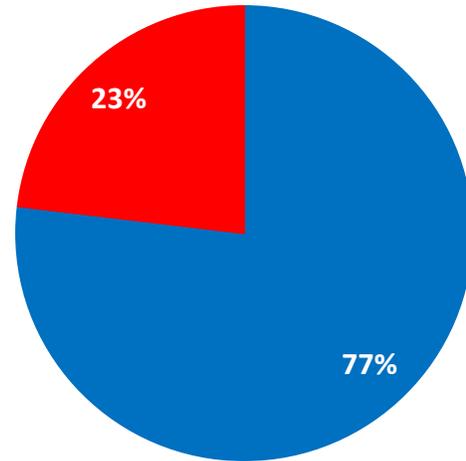
- < 15 days
- between 15 days and 3 months
- > 3 months

Data from 264 outgoing mobilities and 240 incoming mobilities

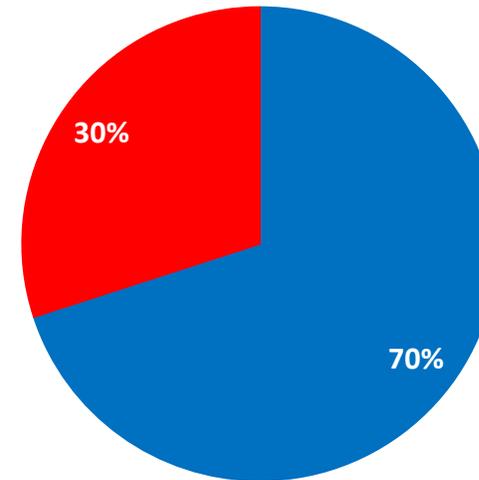
MOBILITY : GENDER DISTRIBUTION (2006-2023)

(DATA FROM CAMPUS FRANCE)

France → Brazil



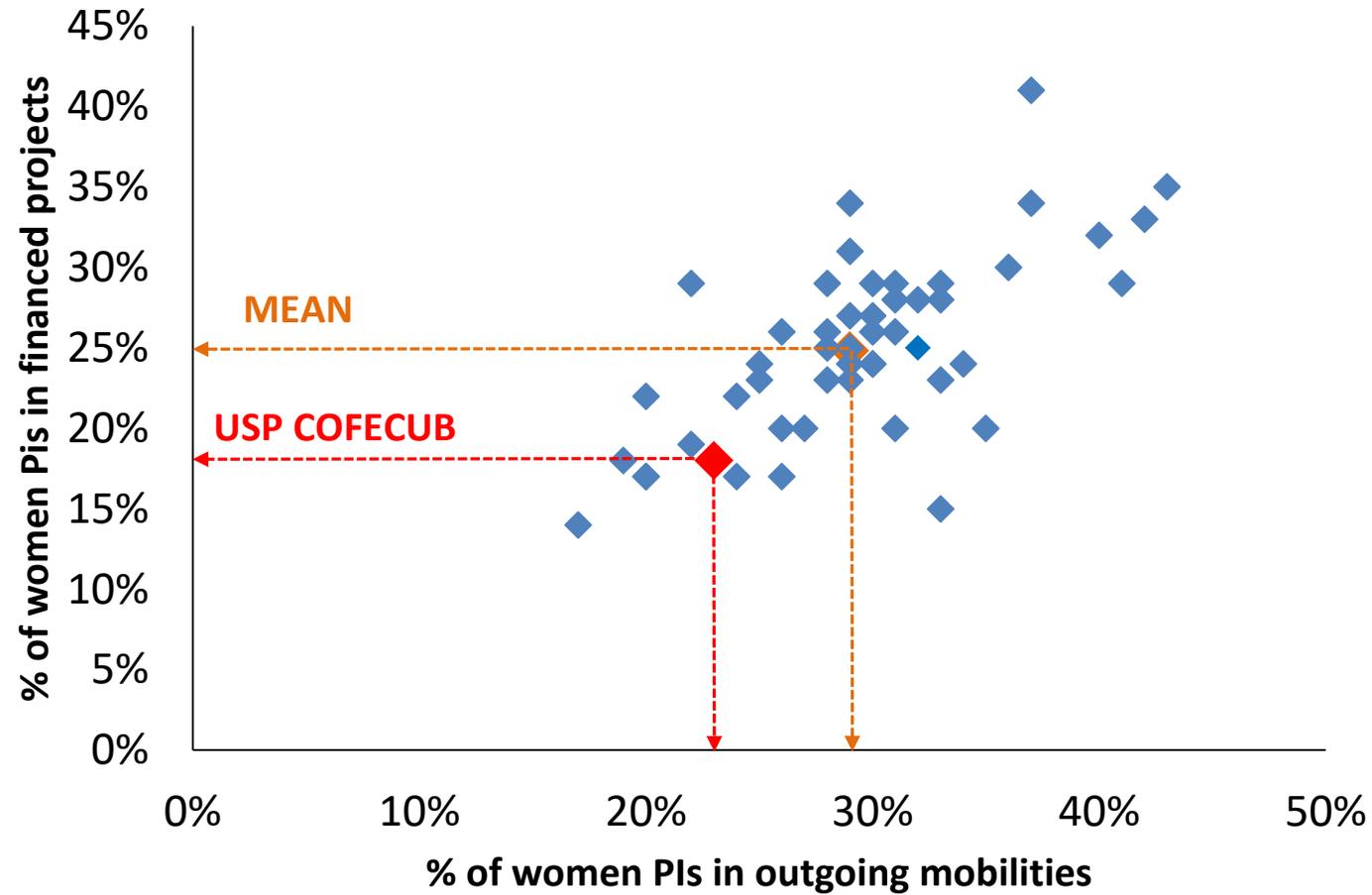
Brazil → France



■ Men ■ Women

Data from 264 outgoing mobilities and 240 incoming mobilities

WOMEN MOBILITY FRANCE – BRAZIL (COMPARISON BETWEEN 51 DIFFERENT BILATERAL PROGRAMS)



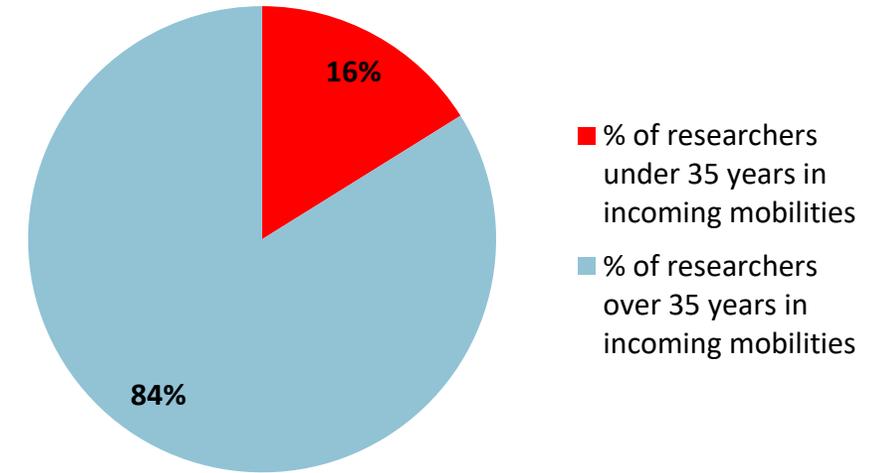
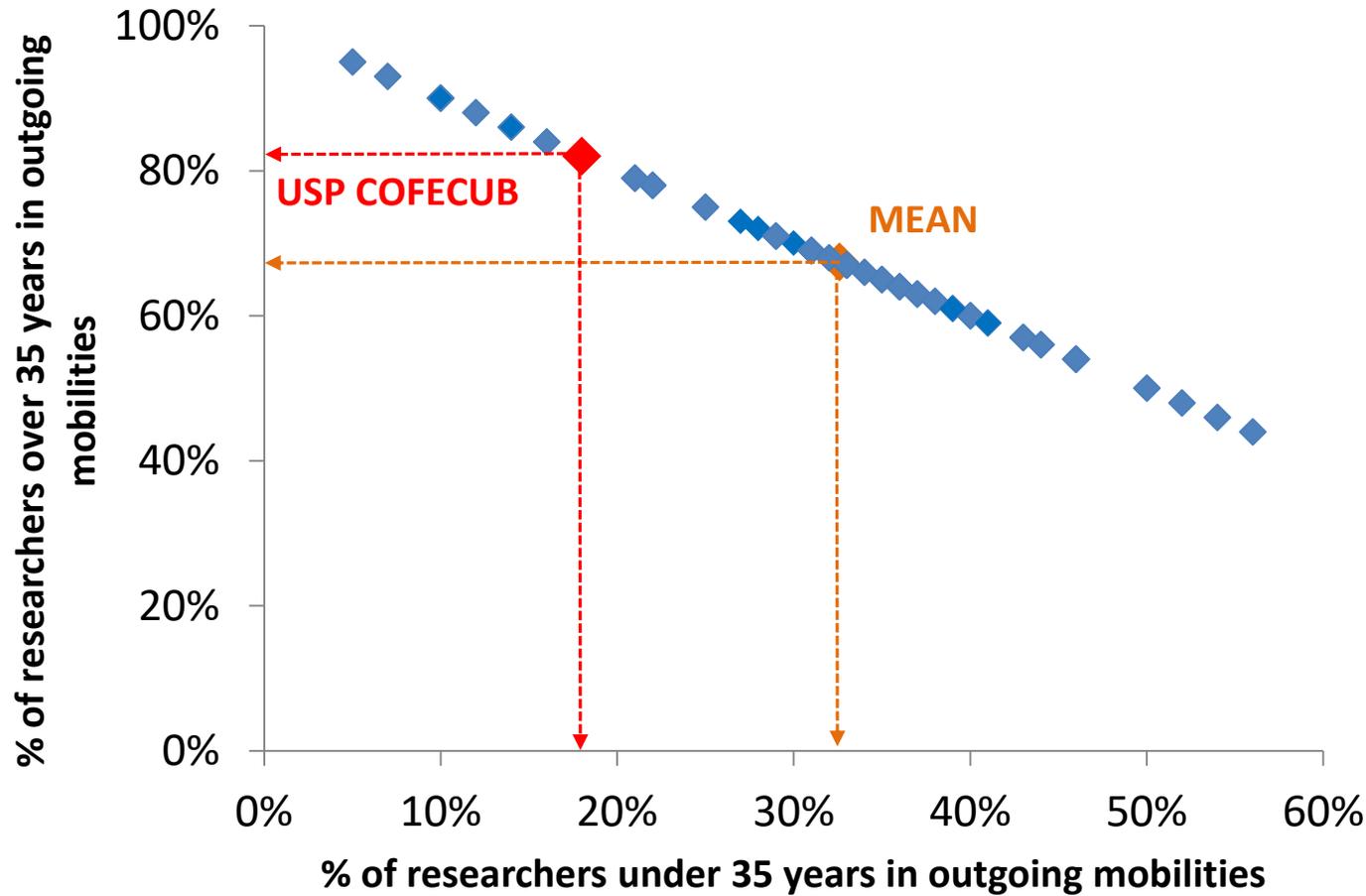
% of women PIs in the funded projects : 18% vs 25% mean
% of women PIs in outgoing mobilities : 23% vs 29% mean

YOUNG RESEARCHERS MOBILITY (2006-2023)

(DATA FROM CAMPUS FRANCE)
 (Comparison between 51 different bilateral programs)

France → Brazil

Brazil → France



Data from 180 mobilities

% of young french researchers in outgoing mobilities : 18% vs 33% mean
% of young brasilian researchers in incoming mobilities : 16% (mean non available)



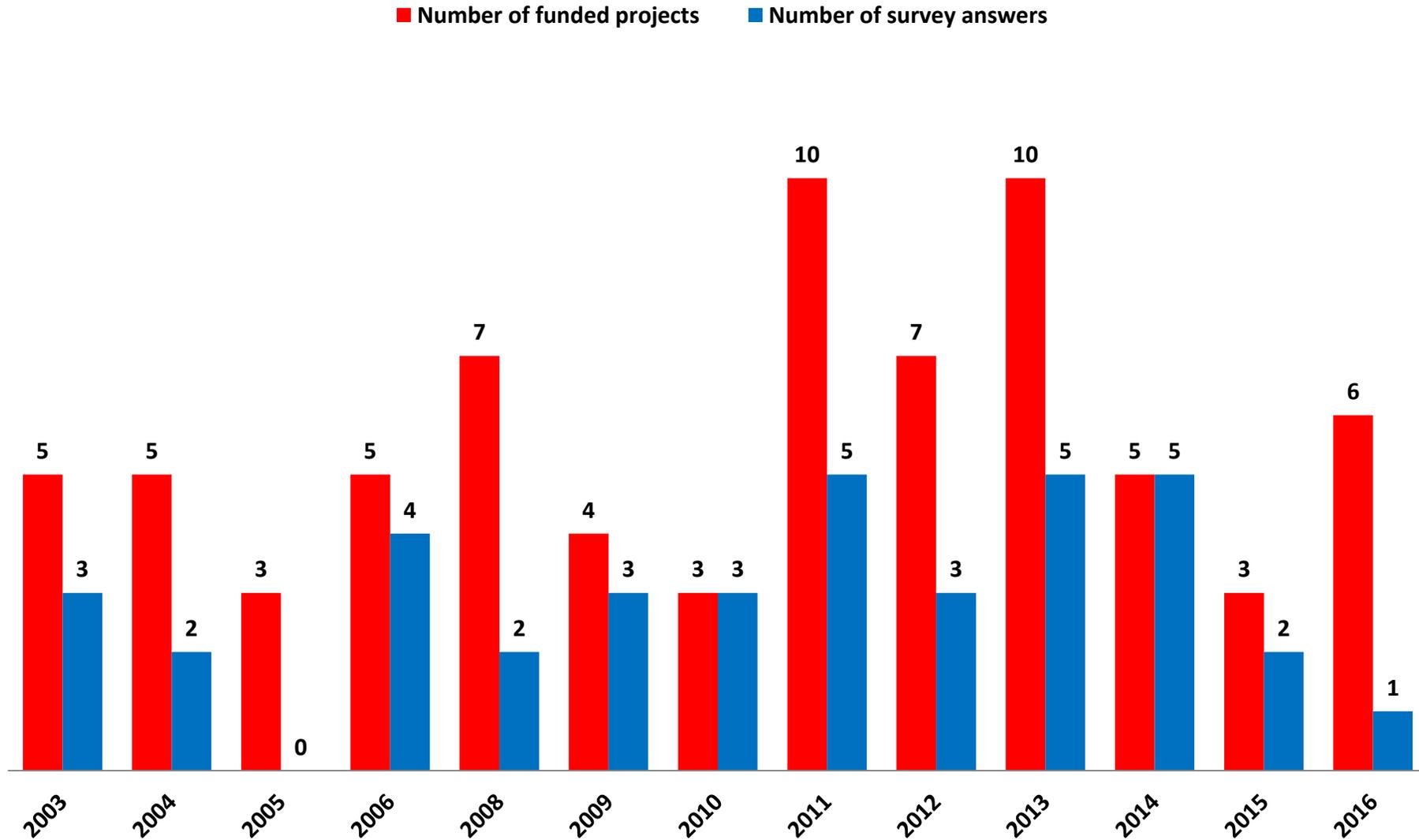
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SURVEY ANALYSIS 2003-2016 KEY POINTS

ANSWERS TO THE SURVEY

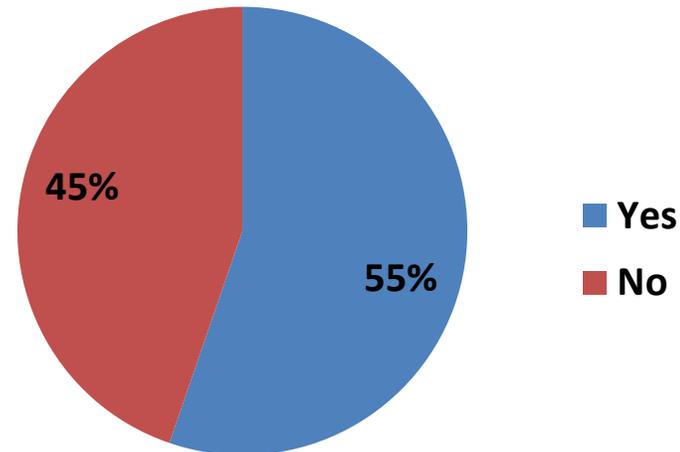
Average response rate to the survey : **52 % (38 answers)**



74 funded projects between 2003 and 2016

BEFORE THE USP-COFECUB PROJECT (1/3)

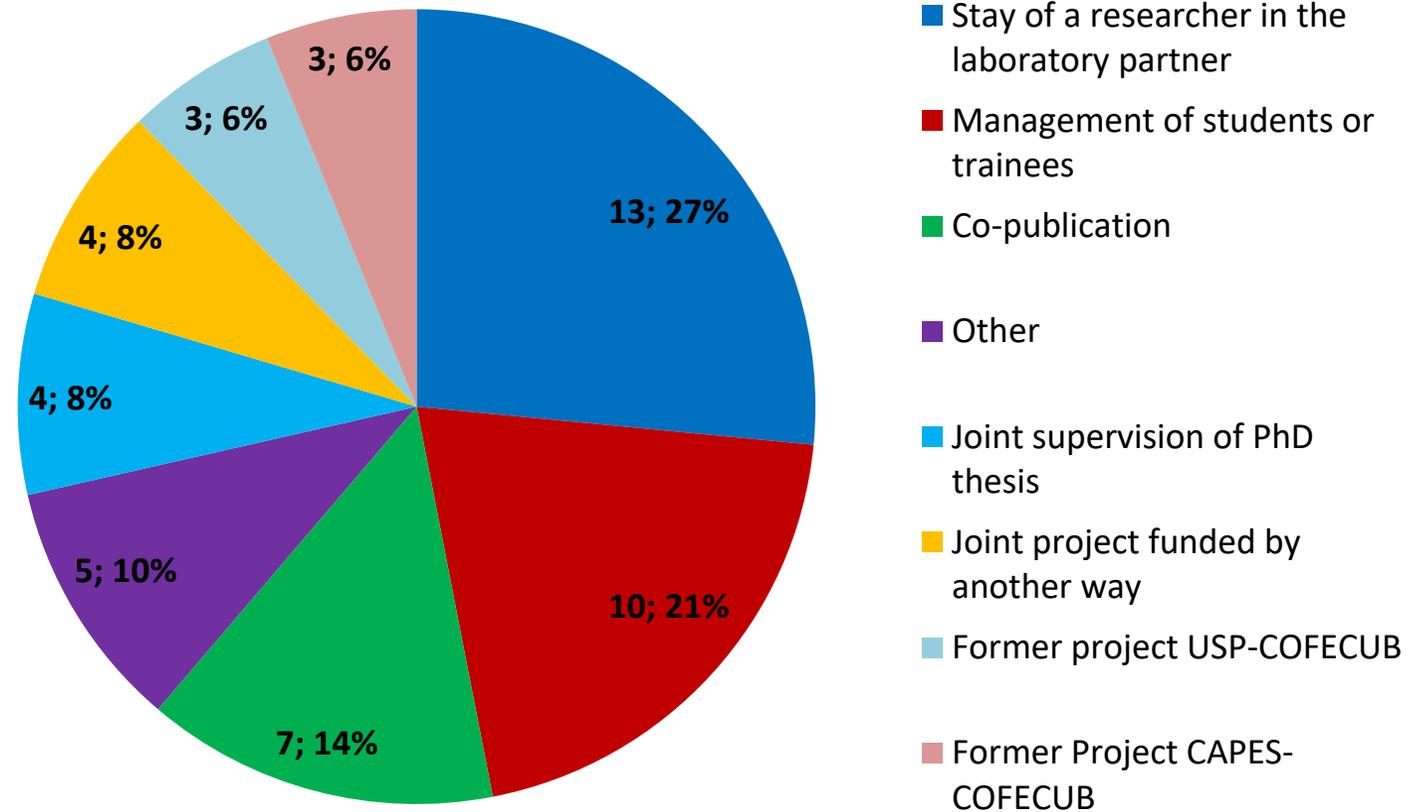
**Did you already cooperate with
the Brazilian partner in the past ?**



Data from 38 responses

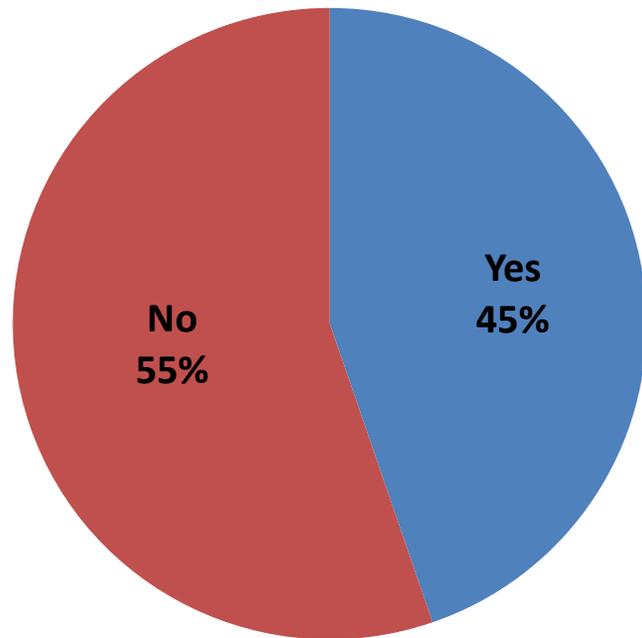
BEFORE THE USP-COFECUB PROJECT (2/3)

45% of French PIs have already collaborated with
the same Brazilian partner



BEFORE THE USP-COFECUB PROJECT (3/3)

Participation to another cooperation program supported by France in Latin America before this USP-COFECUB program



Data from 38 responses

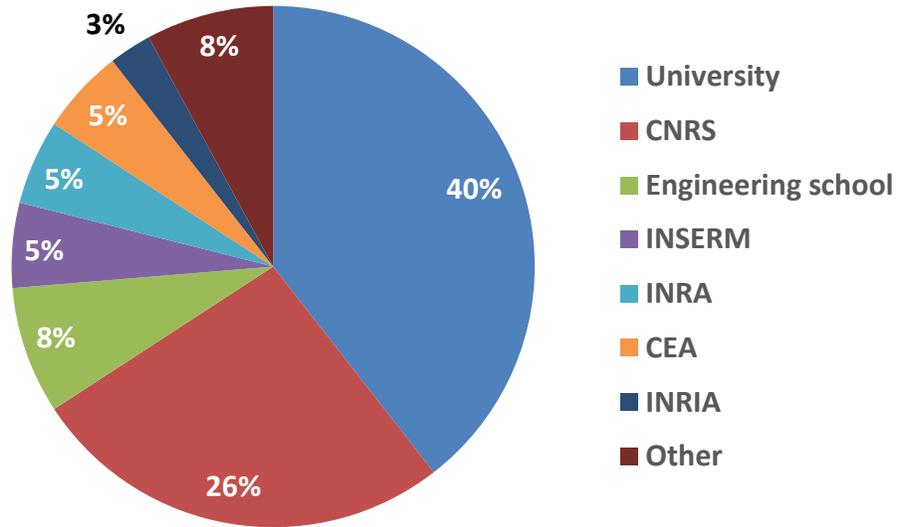
With which scientific collaboration program ?	
USP-COFECUB	39%
CAPES-COFECUB	22%
ECOS	17%
MATH AMSUD	9%
Other	13%

Data from 23 responses

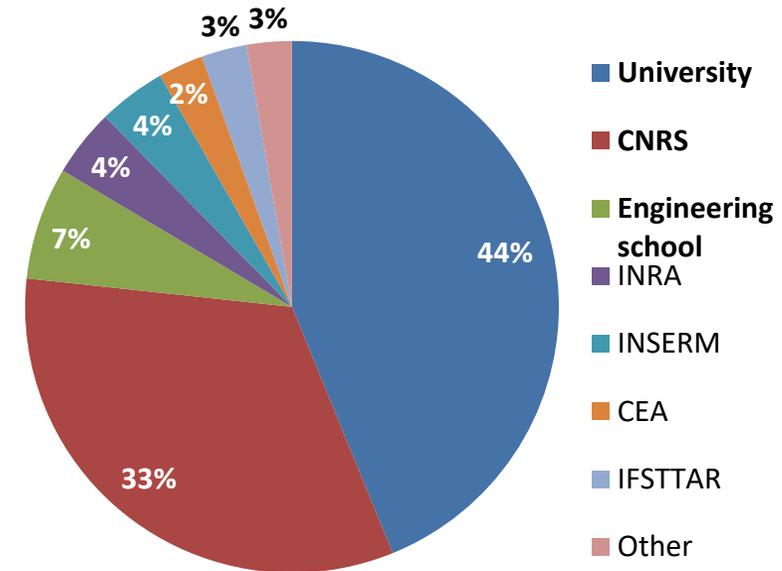
FRENCH PARTICIPATING INSTITUTIONS

(SOURCE : DATA FROM THE SURVEY)

PI's employers

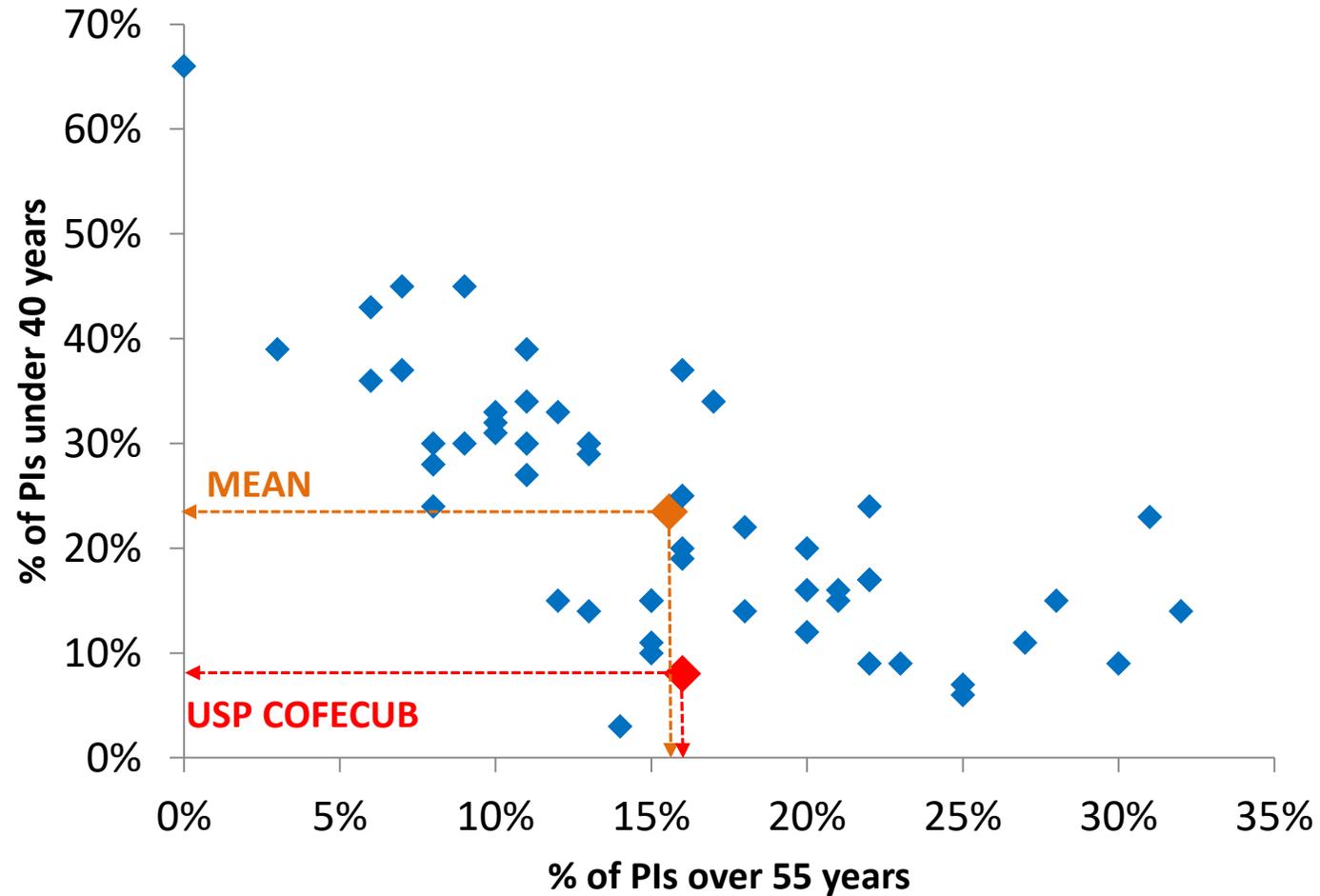


Laboratories authorities



Data from 38 responses

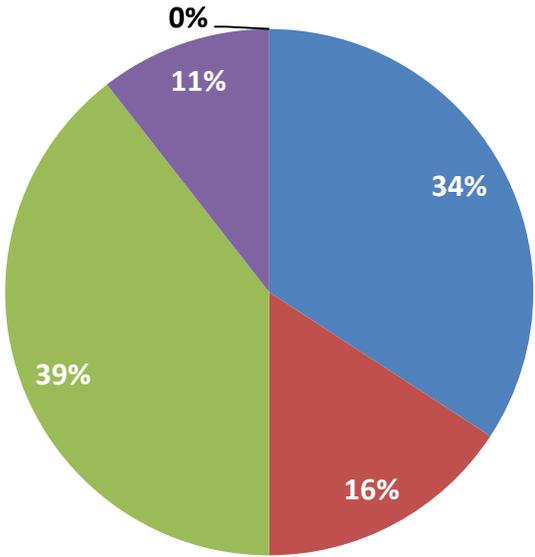
AGE OF PRINCIPAL INVESTIGATORS (PI) (COMPARISON BETWEEN 53 DIFFERENT BILATERAL PROGRAMS)



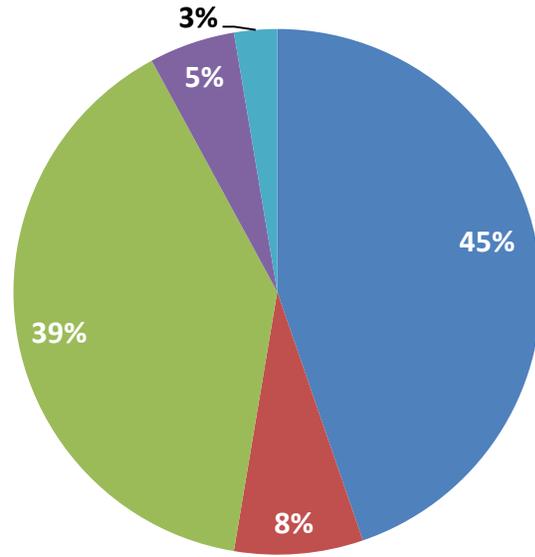
PIs under 40 years : 8% vs 23% mean
PIs over 55 years : 16% vs 16% mean
76% of the PIs are between 40 and 55 years

FRENCH PIS (PRINCIPAL INVESTIGATORS) : STATUS (2003-2016)

Previous professional status (at the beginning of the project)



Current professional status

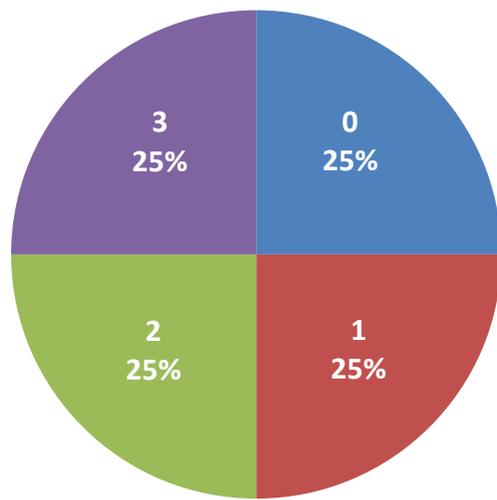


- Full professor
- Assistant professor
- Senior researcher
- Junior researcher
- Other

Data from 38 responses

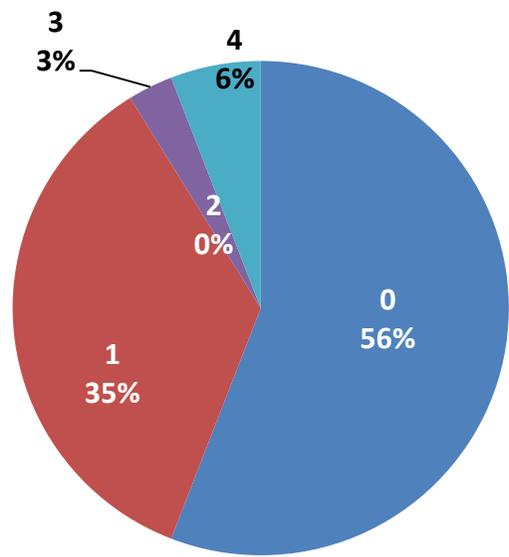
PARTICIPATION OF FRENCH YOUNG RESEARCHERS (2003-2016)

Number of Master degree students



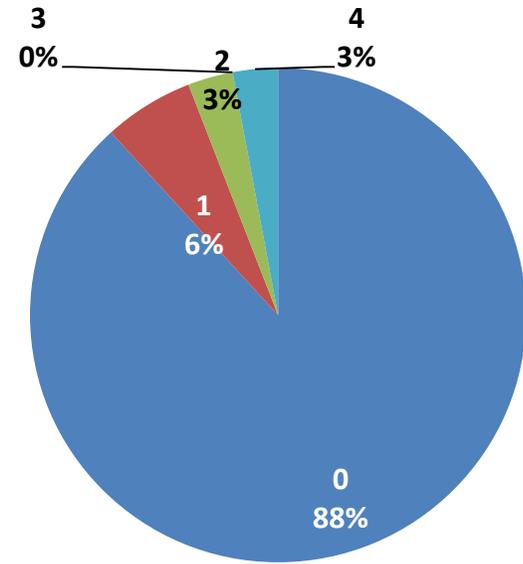
75 % of projects involve at least 1 Master degree student

Number of PhD students



44 % of projects involve at least one PhD student

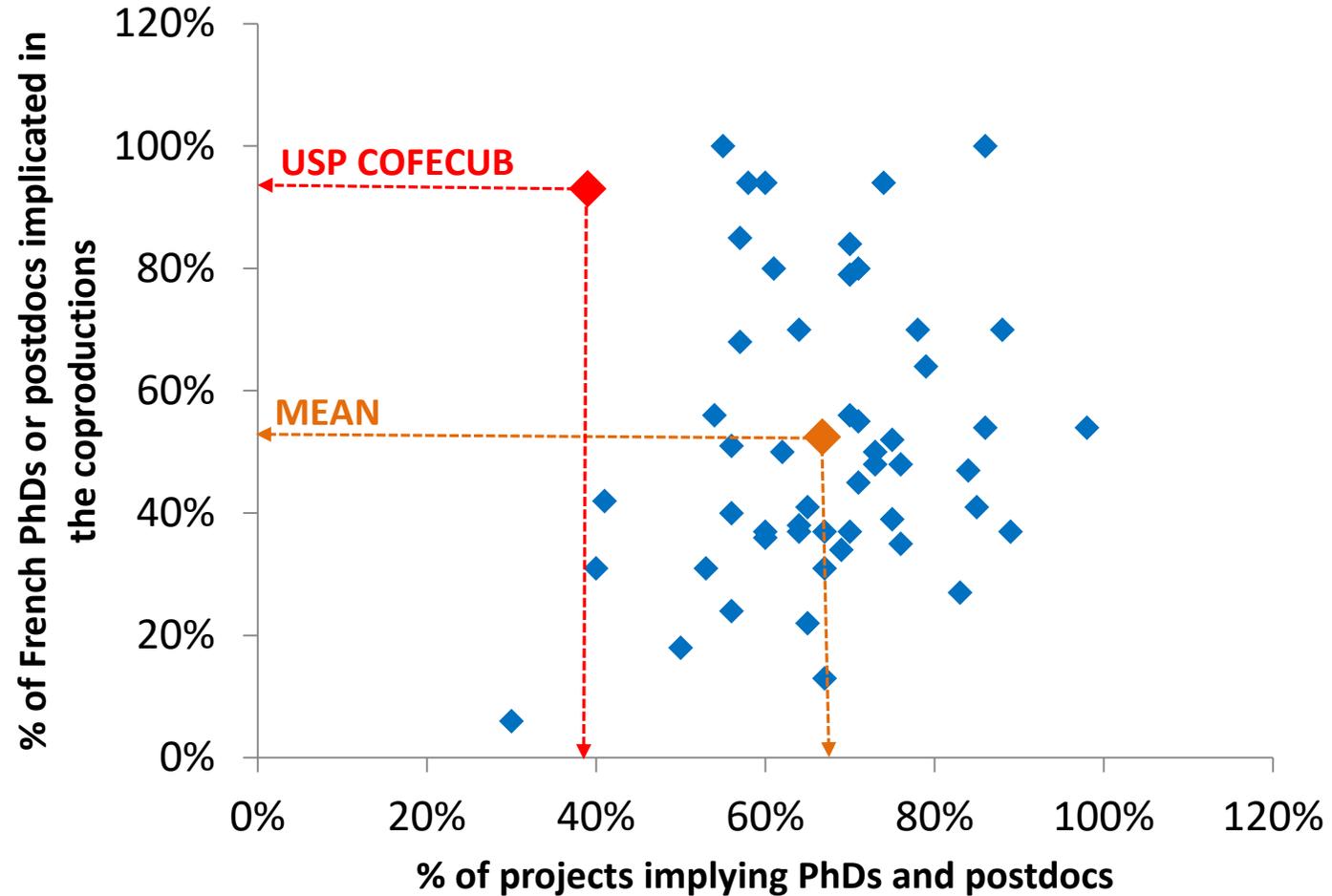
Number of post-doctoral researchers



12 % of projects involves at least 1 post-doctoral researcher

IMPLICATION OF FRENCH YOUNG RESEARCHERS IN THE PUBLICATIONS (2003-2016)

(COMPARISON BETWEEN 53 DIFFERENT BILATERAL PROGRAMS)

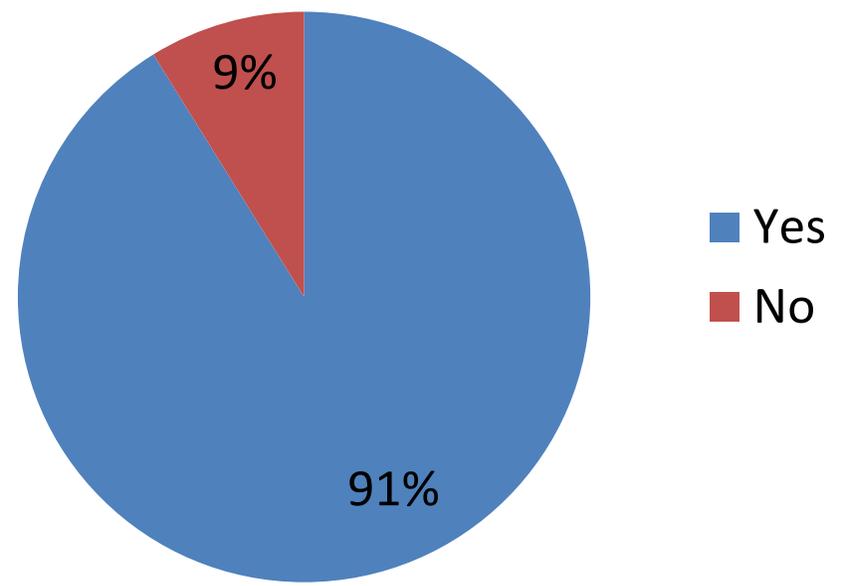


% of projects involving french young researchers : 39% vs 67% mean
% of french PhDs or postdocs involved in the coproductions : 93% vs 52% mean

SCIENTIFIC PRODUCTION 2004-2013

SCIENTIFIC OUTPUT : % OF FUNDED PROJECTS (2004-2016)

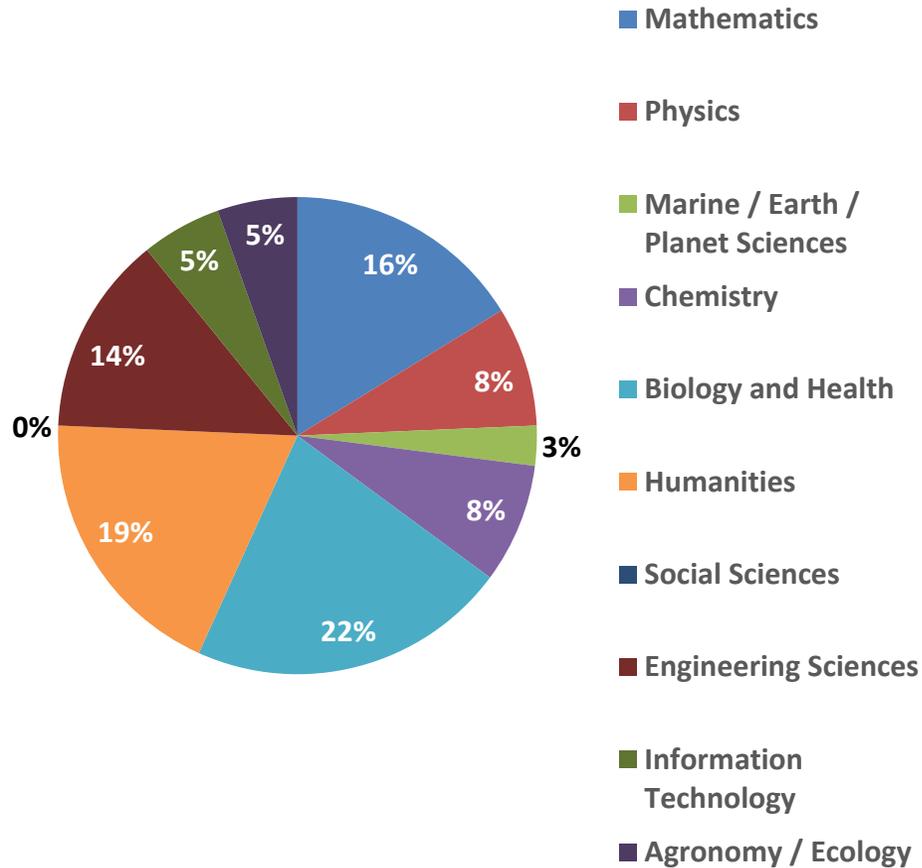
Has the USP-COFECUB project led to scientific output?



Data from 34 responses

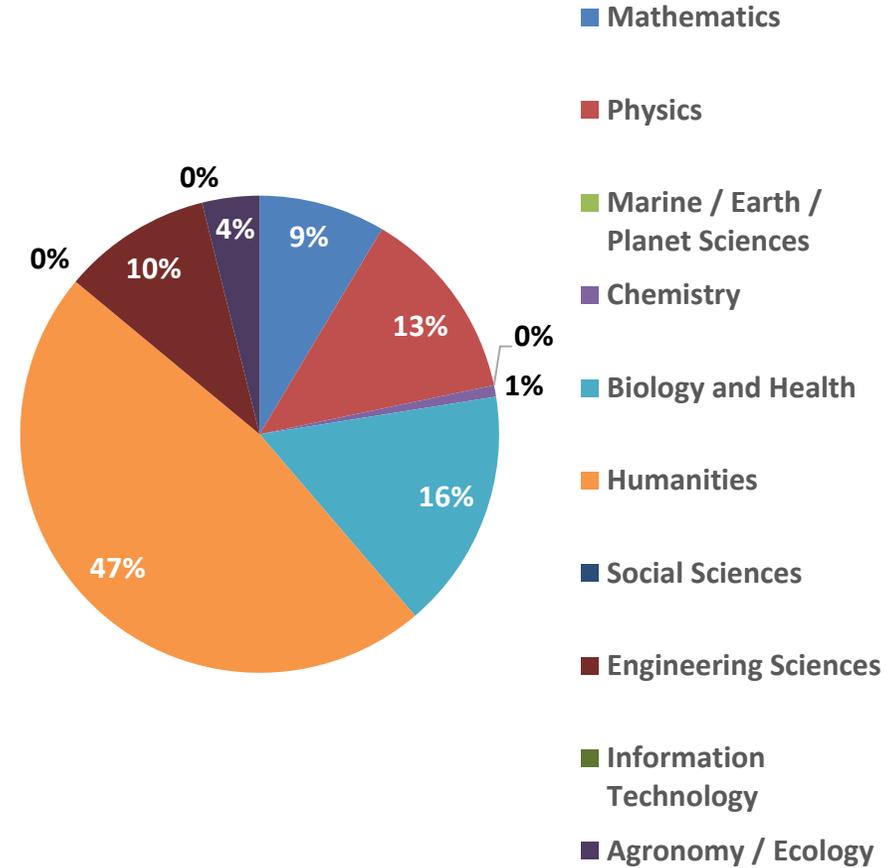
SCIENTIFIC PRODUCTION 2004-2013 (1/2)

Responses to the survey 2004-2013



37 responses
No responses for Social Sciences

Coproductions 2004-2013



Analysis of 129 coproductions

SCIENTIFIC OUTPUT 2004-2013 (2/2)

	Number of financed projects in the survey	Average annual number of scientific co-productions per project
Mathematics	6	0,46
Physics	3	1,42
Marine/Earth/Planet Sciences	1	0,00
Chemistry	3	0,08
Biology and Health	8	0,66
Humanities	7	2,18
Social Sciences	No responses	
Engineering Sciences	5	0,65
Information Technology	2	0,00
Agronomy / Ecology	2	0,63
TOTAL	75	1,4

Overall average annual number of scientific coproductions per project : 0,87 vs 0,96 mean



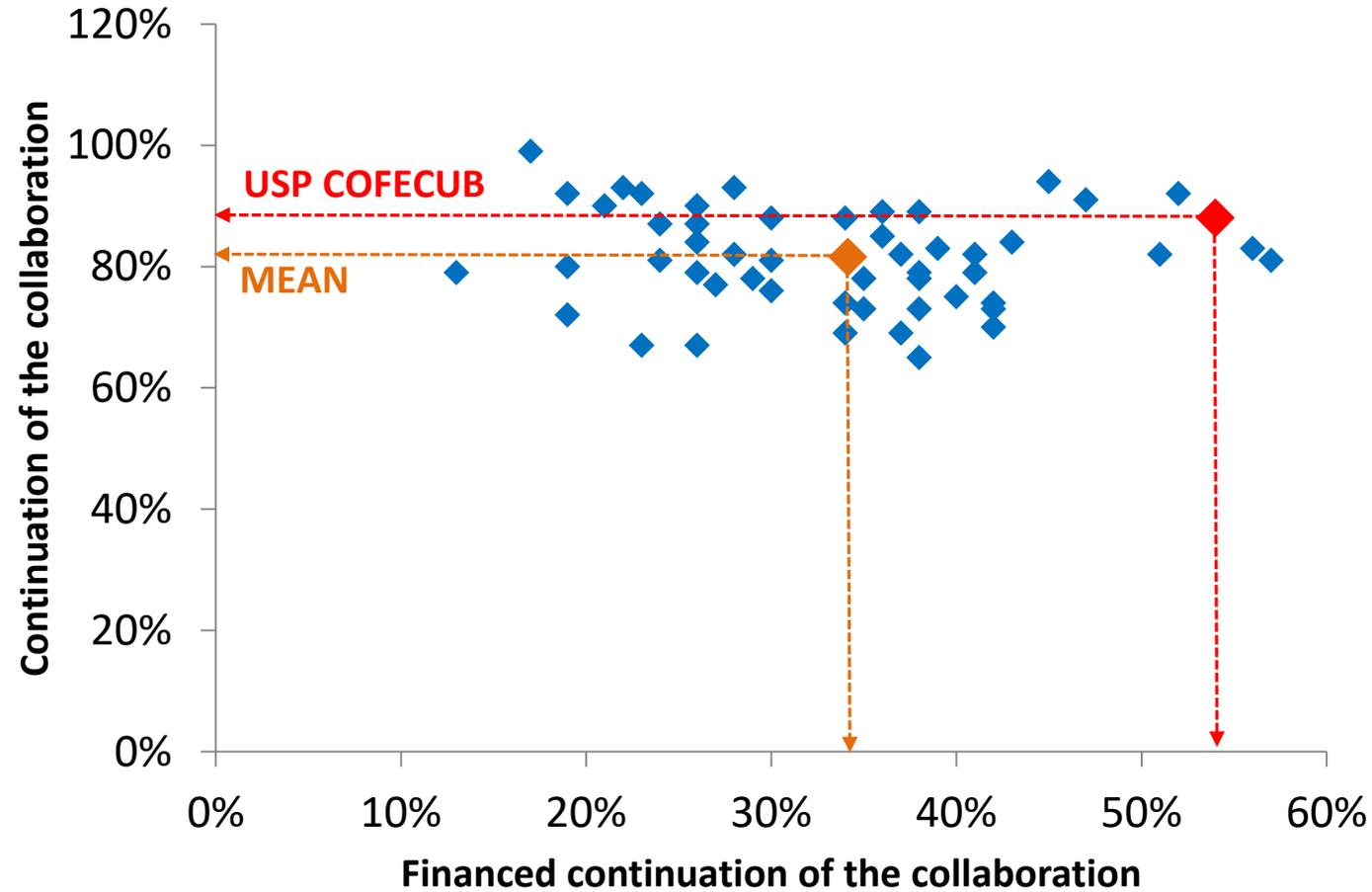
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WHAT HAPPENS AFTER A USP-COFECUB PROJECT ?

CONTINUATION OF THE COOPERATION 2003-2016 (1/3)

(COMPARISON BETWEEN 53 DIFFERENT BILATERAL PROGRAMS)



Continuation of the collaboration : **88% vs 82% mean**
Continuation of the collaboration with other sources of subvention : **54% vs 34% mean**

CONTINUATION OF THE COOPERATION 2003-2016 (2/3)

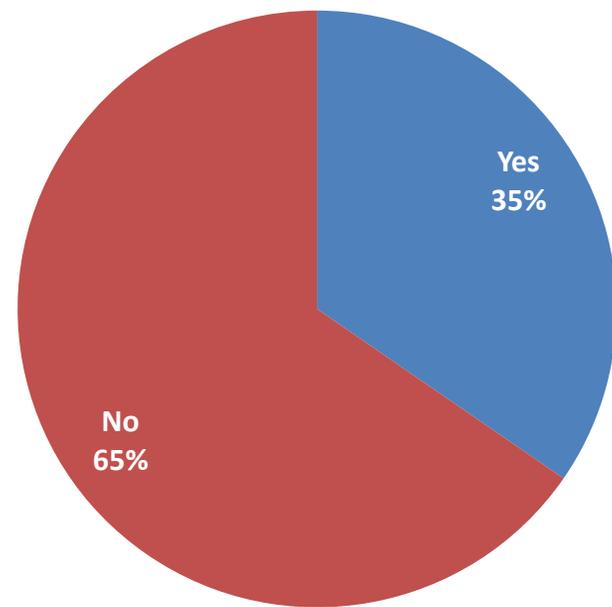
88% of the cooperations continued after the USP-COFECUB project

Which activities?	% of projects
Cooperative research	55%
Scientific co-productions	55%
Joint participation to conferences	55%
Researchers mobilities	45%
PhD mobilities	32%
Co-organisation of scientific events	24%
Joint participation to PhD thesis	21%
Other	16%

Data from 30 responses

CONTINUATION OF THE COOPERATION 2003-2016 (3/3)

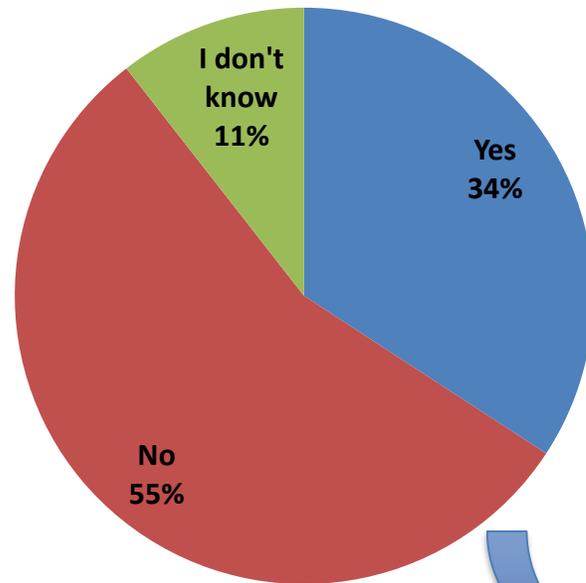
Has the French-Brazilian cooperation involved new partners?



Data from 26 responses

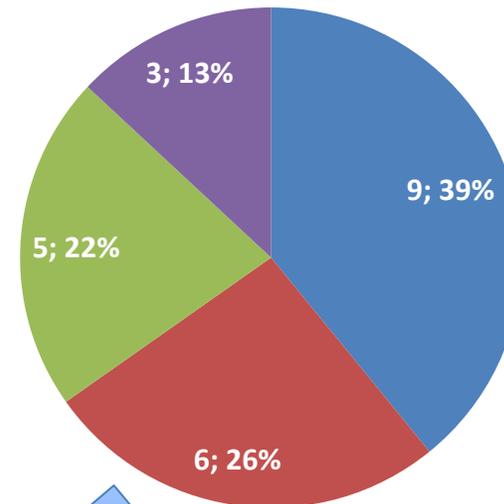
IMPACT ON YOUNG RESEARCHERS' CAREER (2003-2016) (1/2)

Was young researchers' career impacted by the USP-COFECUB program ?



Data from 38 responses

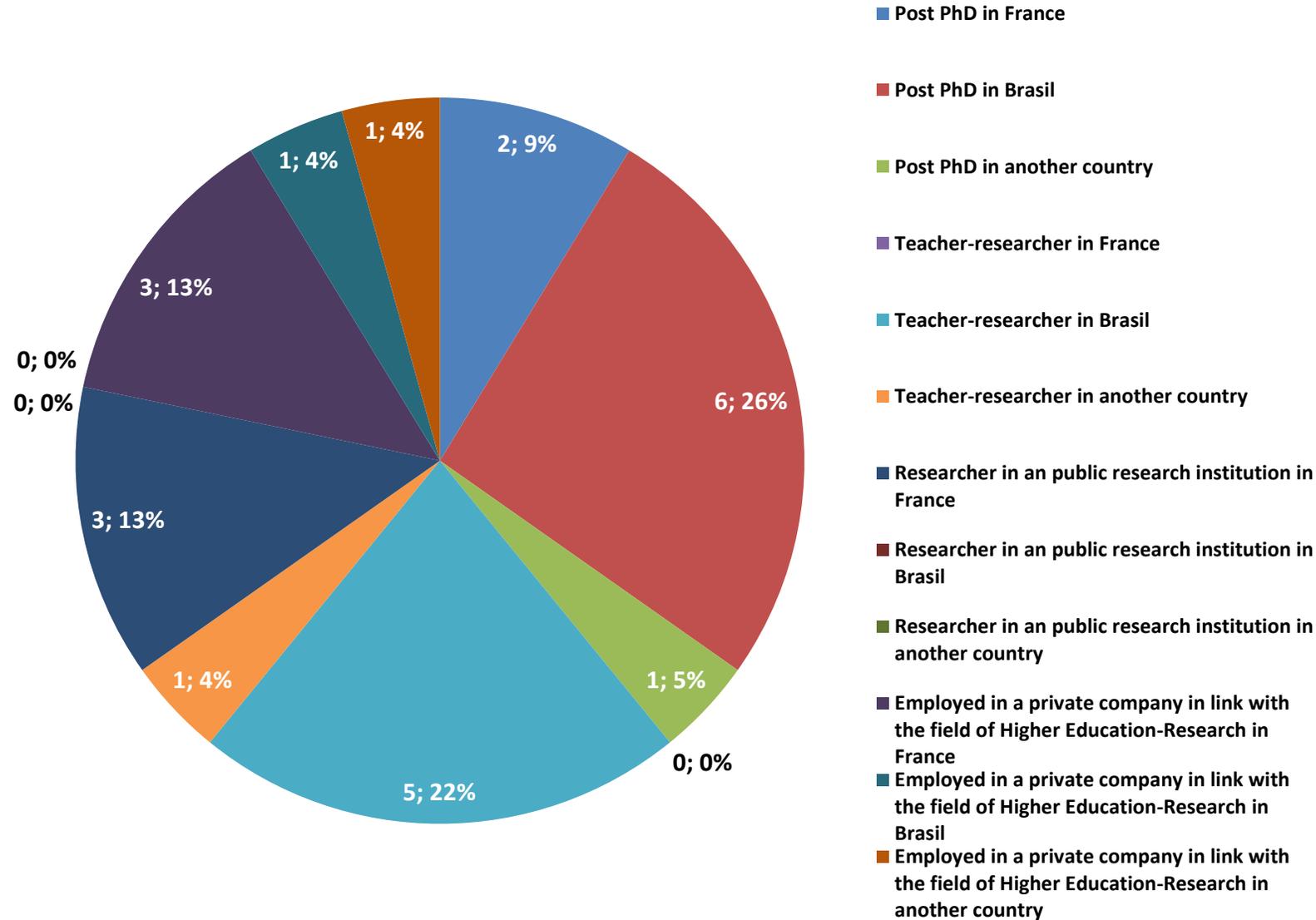
Type of impacts



Data from 13 positive responses for a total of 23 young researchers

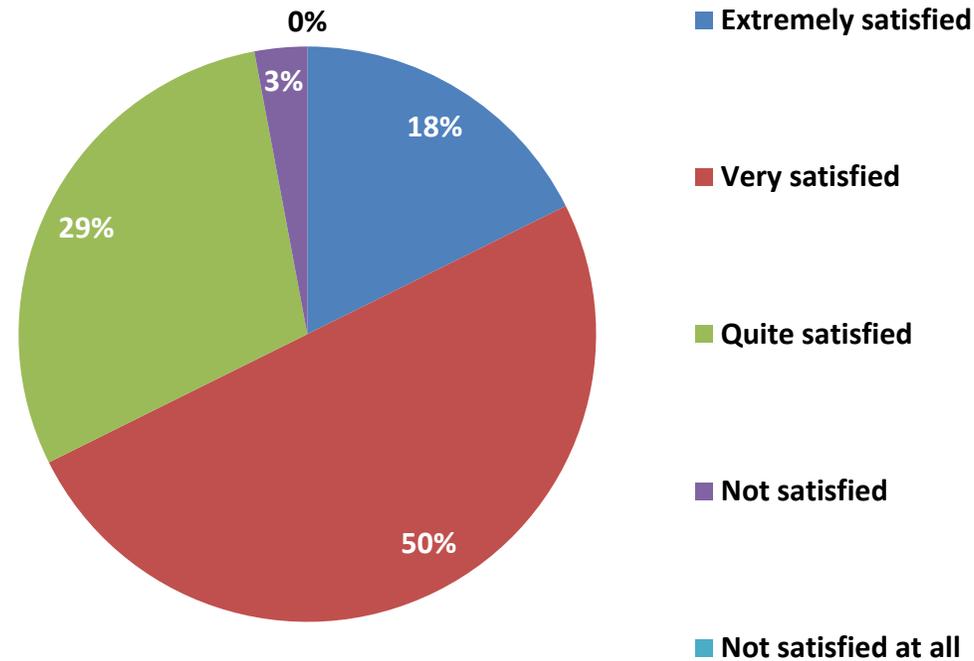
- Postdoc/Teacher/Researcher (temporary position)
- Teacher/Researcher (permanent position)
- Employed in a private sector company in link with the field of Higher Education-Research
- Researcher in a public research institution (permanent position)

IMPACT ON YOUNG RESEARCHERS' CAREER (2003-2016) (2/2)



GENERAL OPINION OF FRENCH PIS ON THE PROGRAM (2003-2016)

97% of French principal investigators are satisfied



Data from 34 responses

GENERAL OPINION OF FRENCH PIS ON THE PROGRAM (2003-2016)

POSITIVE COMMENTS



Strengths of this program	Number of occurrences (out of 182)	% of funded projects
Fostering an international research cooperation	27	71%
Fostering researchers' mobility	26	68%
Fostering exchanges enabling scientific production	24	63%
Fostering the training of the young researchers	19	50%
Simplicity of the project application process	18	47%
Sufficient financial means for the mobility costs	11	29%
Helping to know the partner country	10	26%
Sufficiently long duration of the projects	10	26%
Easy implementation (administrative flexibility)	10	26%
Good scientific-added value on financial investment	9	24%
Sufficient amount of mobility time given to collaborate	9	24%
Helpful to initiate other fundraising	4	11%
Transparency of the selection process	2	5%
Other	3	8%
<i>Total number of occurrences</i>	182	

GENERAL OPINION OF FRENCH PIS ON THE PROGRAM (2003-2016) NEGATIVE COMMENTS



Weaknesses of this program	Number of occurrences (out of 83)	% of funded projects
Insufficient financial means to cover a project	12	32%
Lack of transparency in the selection process	11	29%
Insufficient communication on the evaluation's results	9	24%
Financial means insufficient for the expenditure of mobility (transport)	7	18%
Financial means insufficient for the expenditure of mobility (per diem)	7	18%
Difficult to continue the cooperation	7	18%
Length of support too short	7	18%
Too low number of mobilities	5	13%
Too short duration of mobilities	3	8%
Heaviness of the process of applications	1	3%
Too long duration of mobilities	1	3%
Administrative heaviness of the missions management	1	3%
Other	12	32%
<i>Total number of occurrences</i>	83	

PRELIMINARY CONCLUSIONS

Preliminary conclusions suggest that the funding scheme has efficiently contributed to create (or to maintain) fruitful and long-term cooperation.



Implication of women laureates (28%) better than the general mean (25%)

55% of new cooperations

91% of the projects declare at least one scientific coproduction

Continuation of the cooperation (88%) close to the general mean (82%) with a much better rate of new fundings (54% versus 34% for the general mean)



Implication of young researchers candidates (8%) below the general mean (23%)

% of women laureates (18%) below the general mean (25%)

Only 39% of funded projects with the participation of a PhD student and 11% of a postdoctoral student

Average annual scientific coproductions per project below the average of the other programs (0,87 vs 0,96)

PRELIMINARY RECOMMANDATIONS

- **Promote new collaborations (45% of French PI have already collaborated with Brazil before USP-COFECUB project)**
- **Promote young french PIs (8 % of young researchers)**
- **Promote women french PIs (18 % of women laureates)**
- **Promote PhD students involvement (39 % of projects involve at least one PhD student) and postdoctoral researchers involvement (11 % of projects involve at least one post-doctoral researcher)**
- **Increase scientific co-productions**
- **Improve committee feed back toward candidates**



French national ministries (MESR / MEAE) will provide a complete analysis of the survey. It will be sent to the recipients of the funding who participated in this survey and attendants to this symposium.

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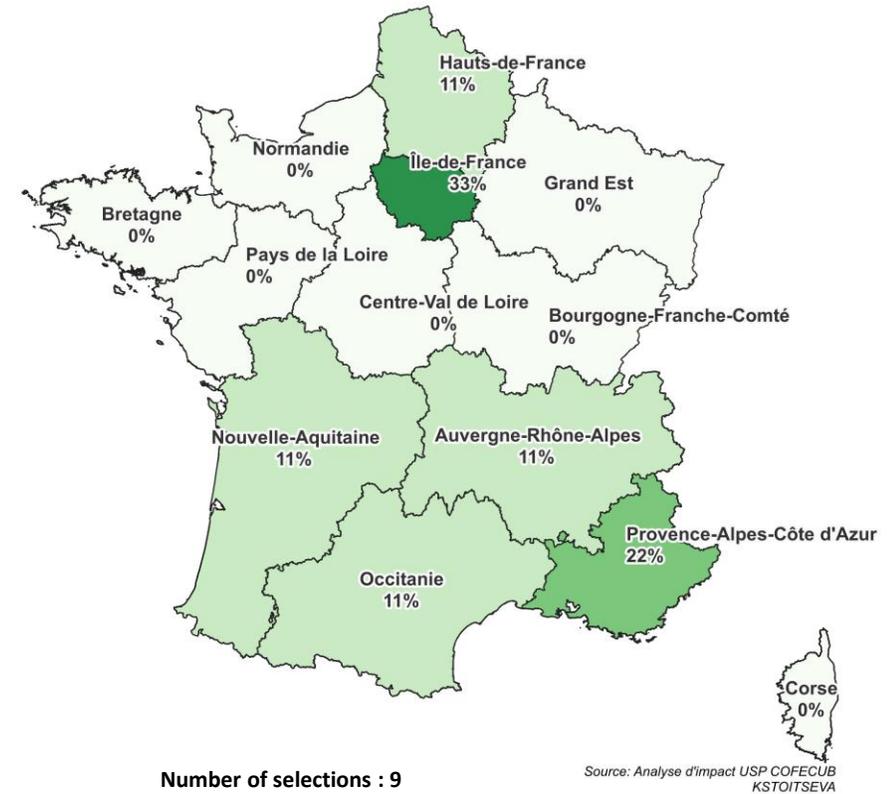
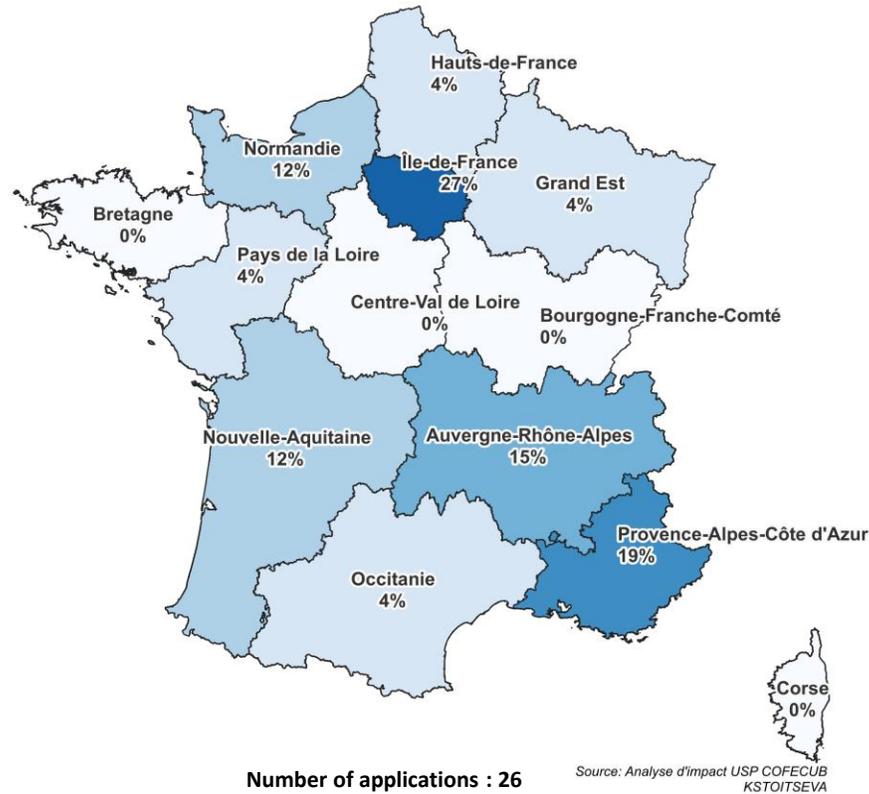
**MINISTÈRE
DE L'ENSEIGNEMENT
SUPÉRIEUR
ET DE LA RECHERCHE**

*Liberté
Égalité
Fraternité*

ANNEX REGIONALISATION AND SCIENTIFIC DOMAINS (CARTOGRAPHIES)

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFEUCB Regional percentages of applications and selections *Mathematics 2006-2023*

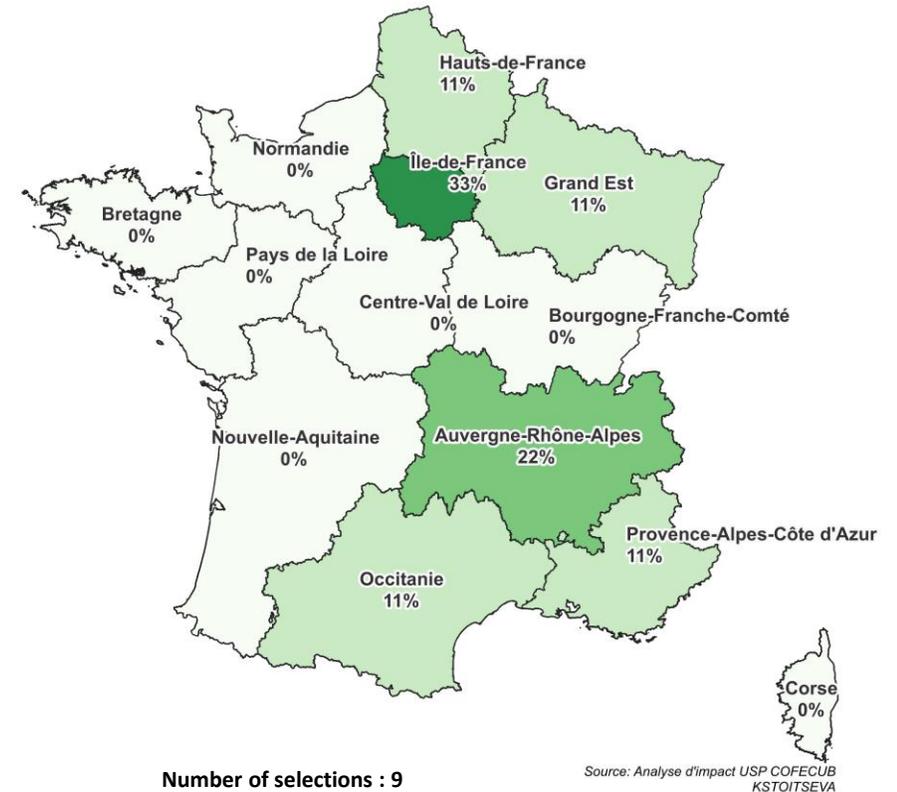
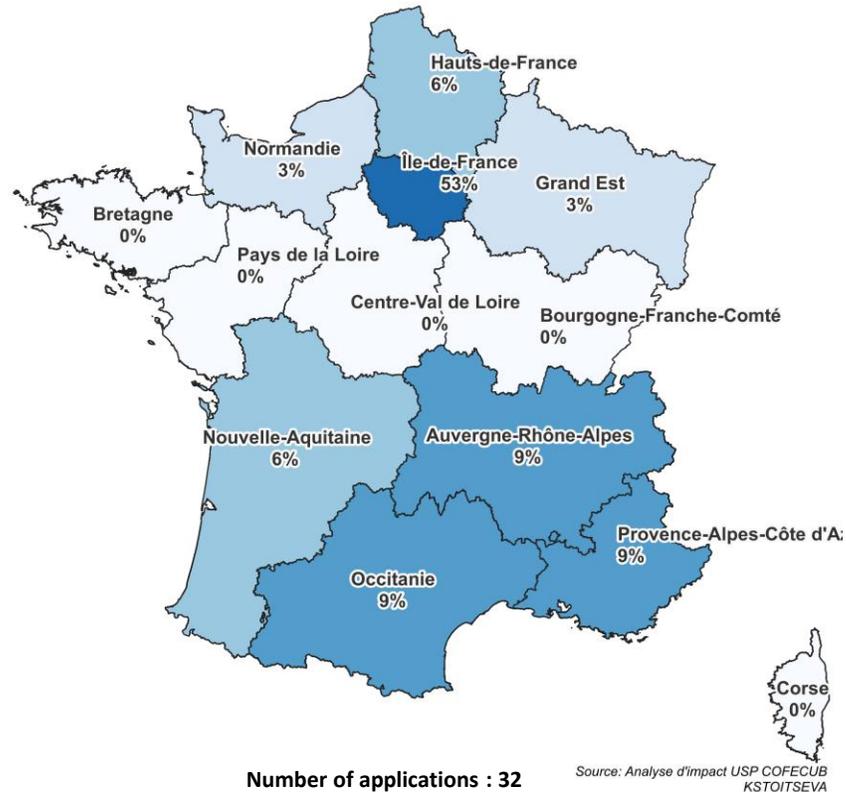


Nine regions are concerned for applications with Ile-de-France ahead but only six for selections (with Ile-de-France still ahead)

% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFECUB Regional percentages of applications and selections *Physics 2006-2023*



Eight regions are concerned for applications with Ile-de-France ahead but only six benefit selections (with Ile-de-France still ahead)

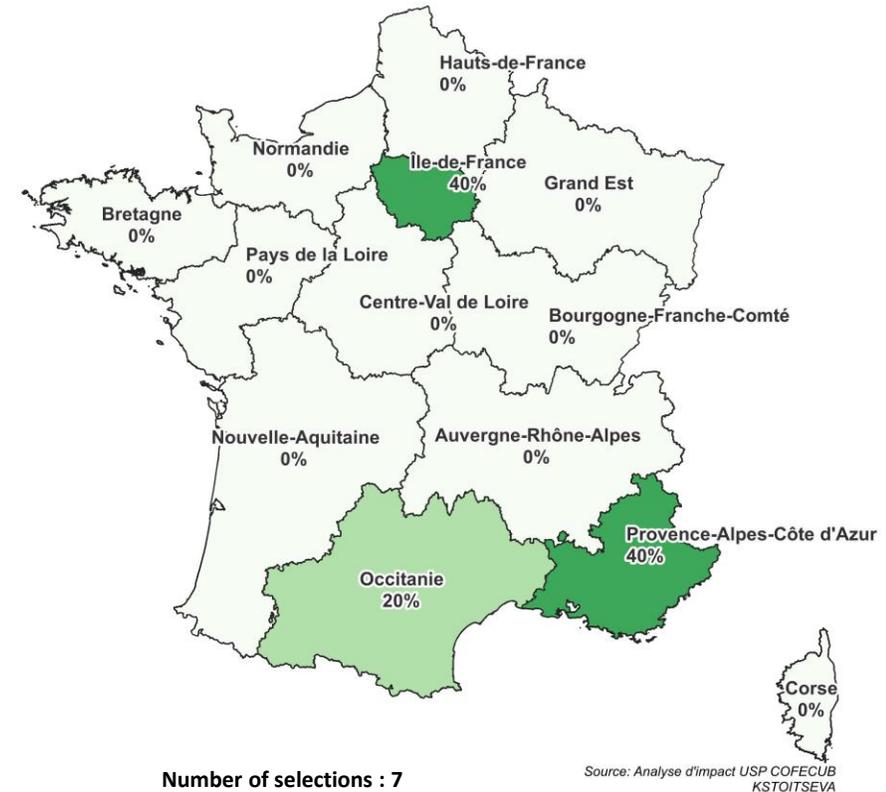
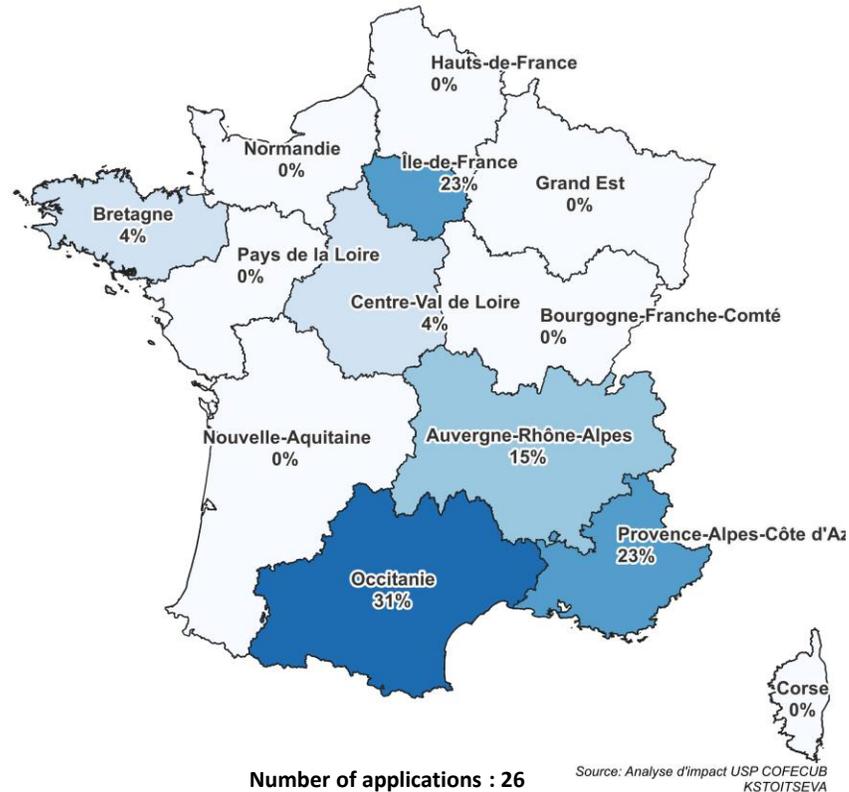
% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFECUB

Regional percentages of applications and selections

Marine, Earth, Planet Sciences 2006-2023

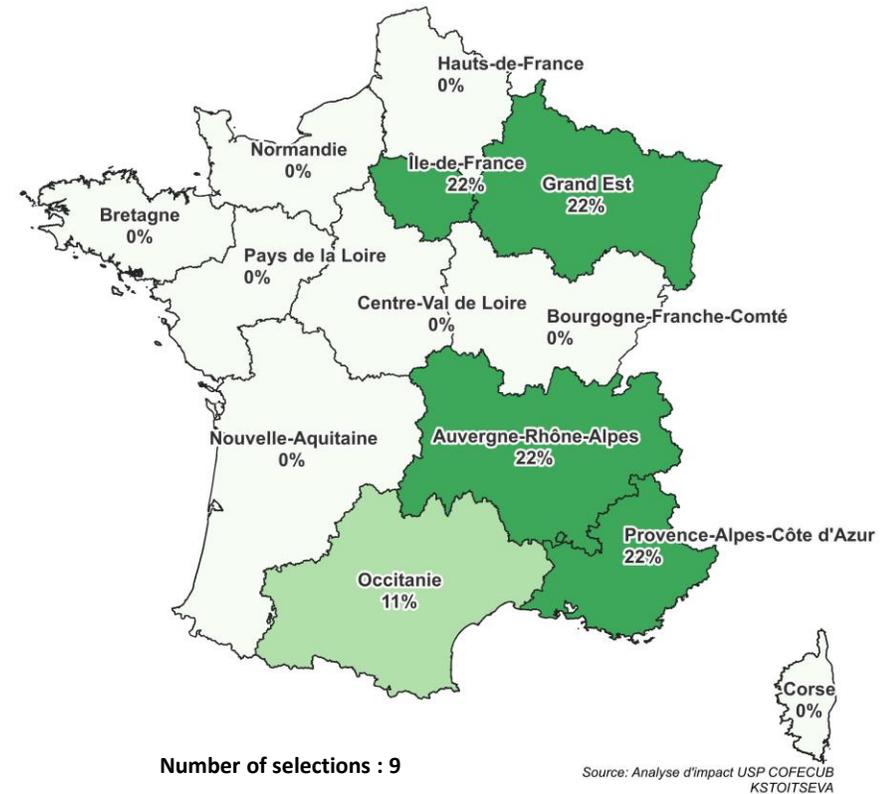
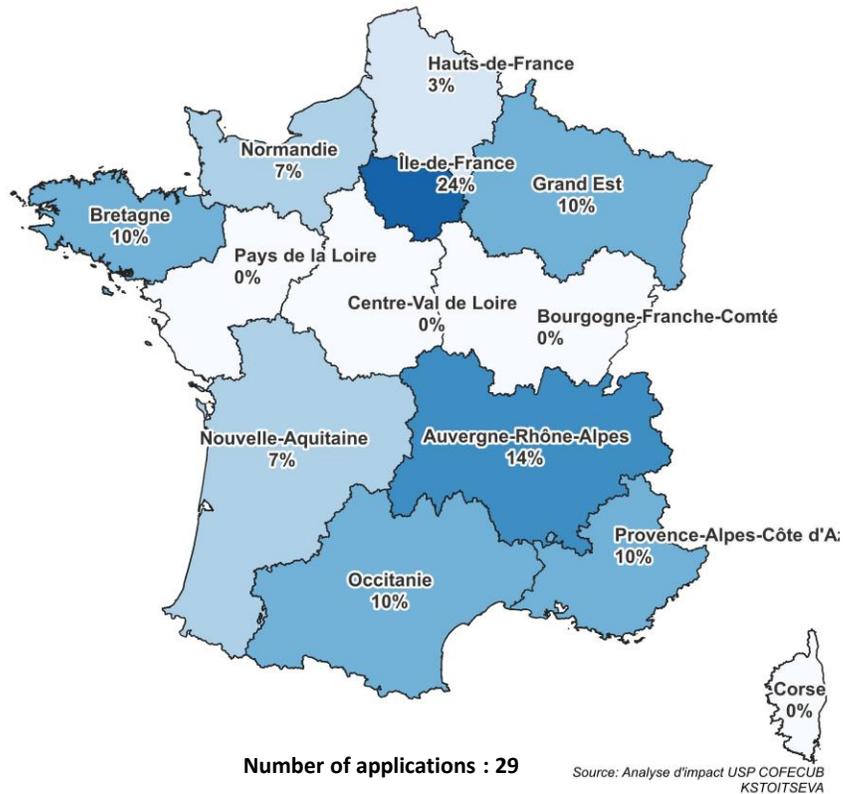


Six regions are concerned for applications with Occitanie ahead but only three benefit selections (with Ile-de-France and Provence-Alpes-Côte d'Azur ahead)

% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFECUB Regional percentages of applications and selections *Chemistry 2006-2023*

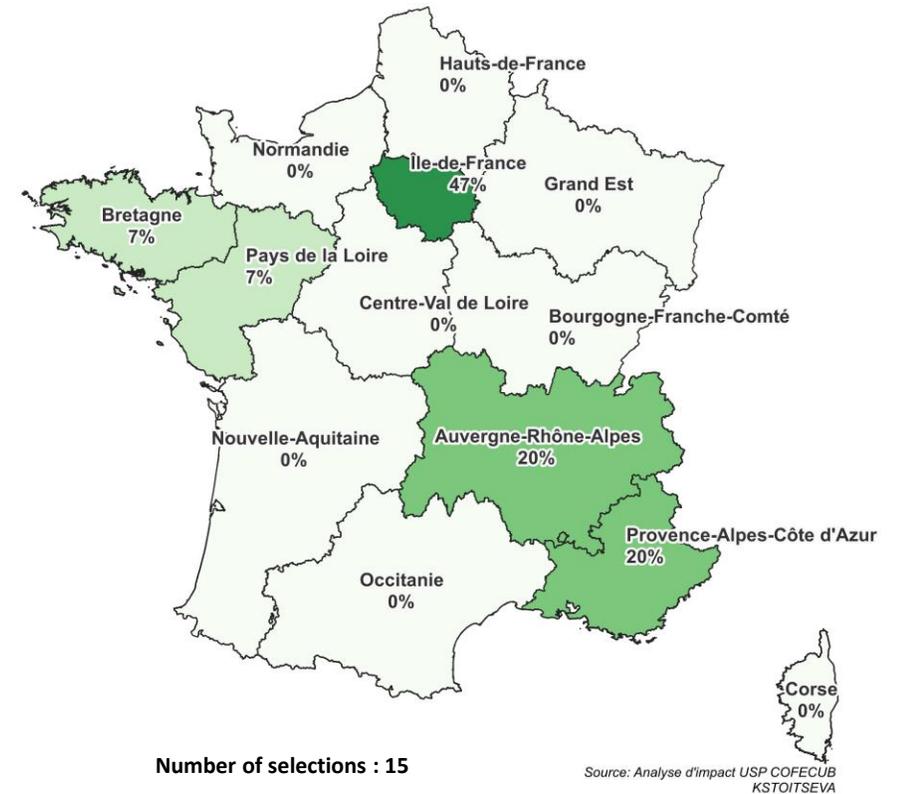
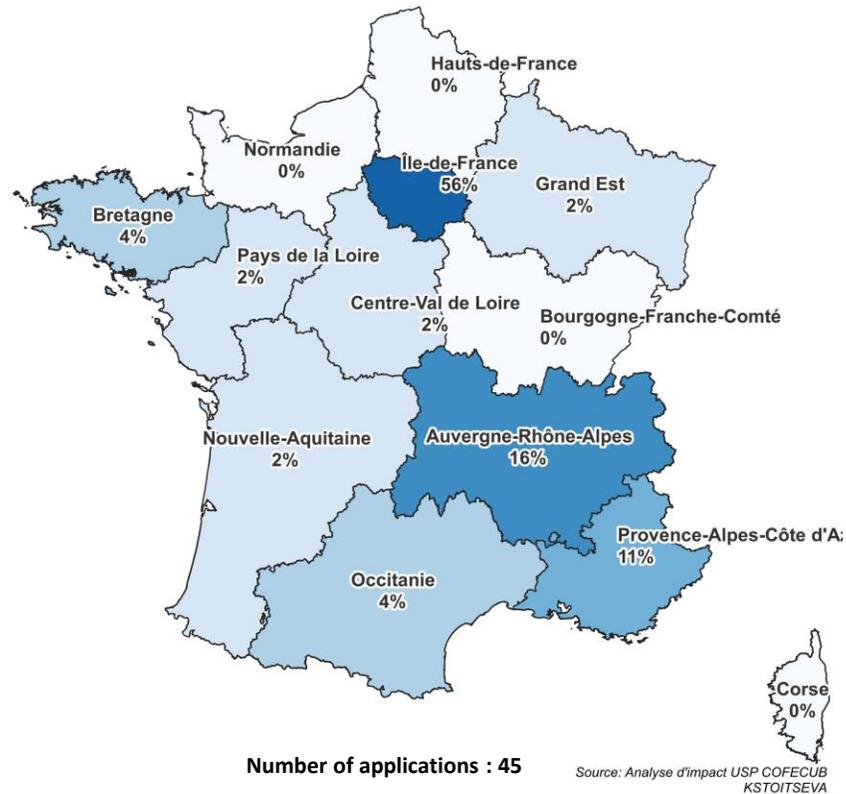


Ten regions are concerned for applications with Ile-de-France ahead but only five benefit selections (with four equally ahead for selections)

% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFECUB Regional percentages of applications and selections *Biology and Health 2006-2023*

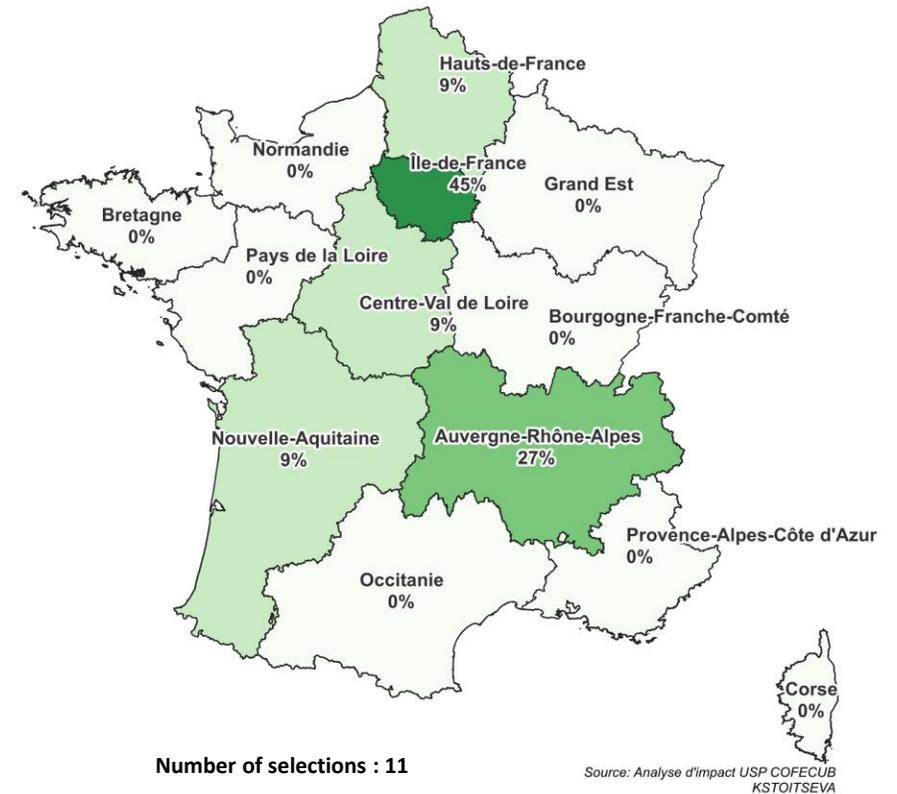
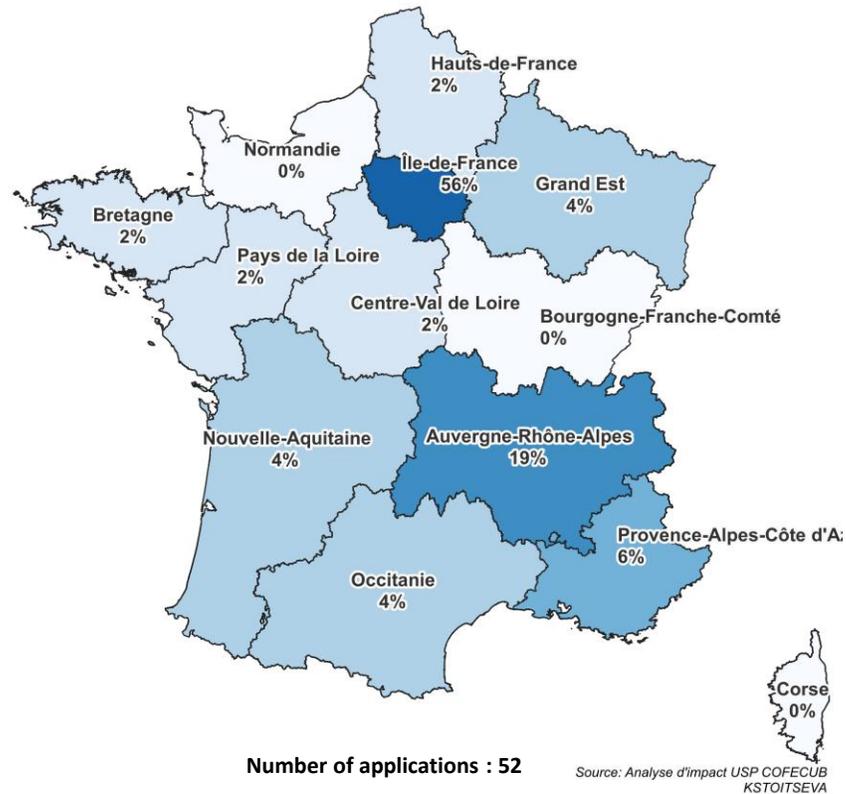


Nine regions are concerned for applications with Ile-de-France ahead but only five benefit selections (with Ile-de-France still ahead)

% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFECUB Regional percentages of applications and selections *Humanities 2006-2023*

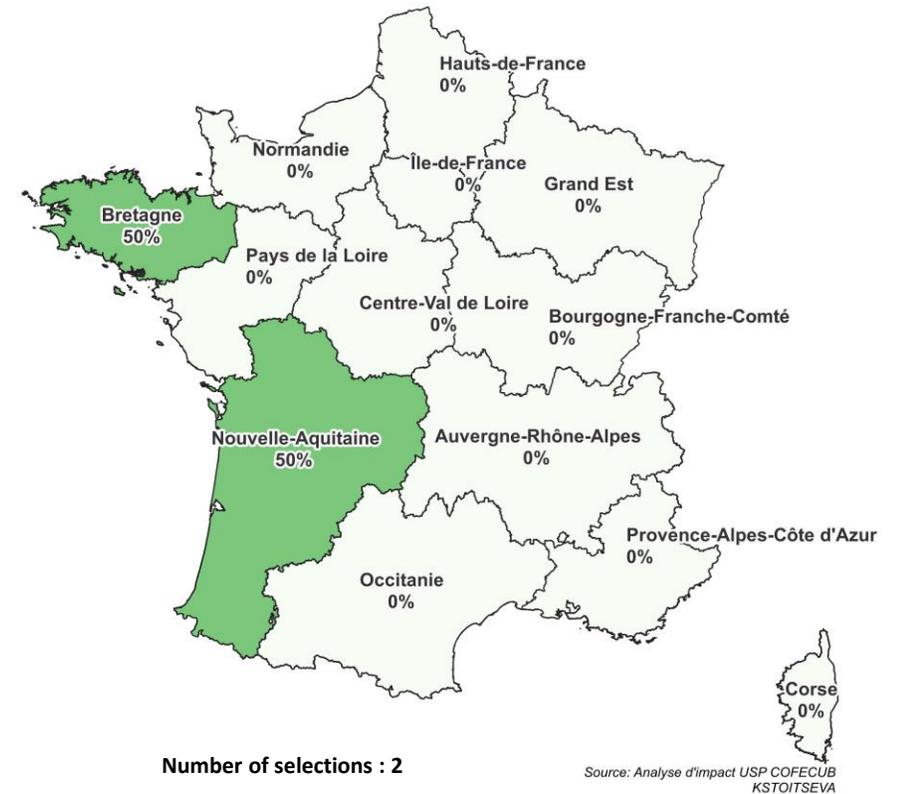
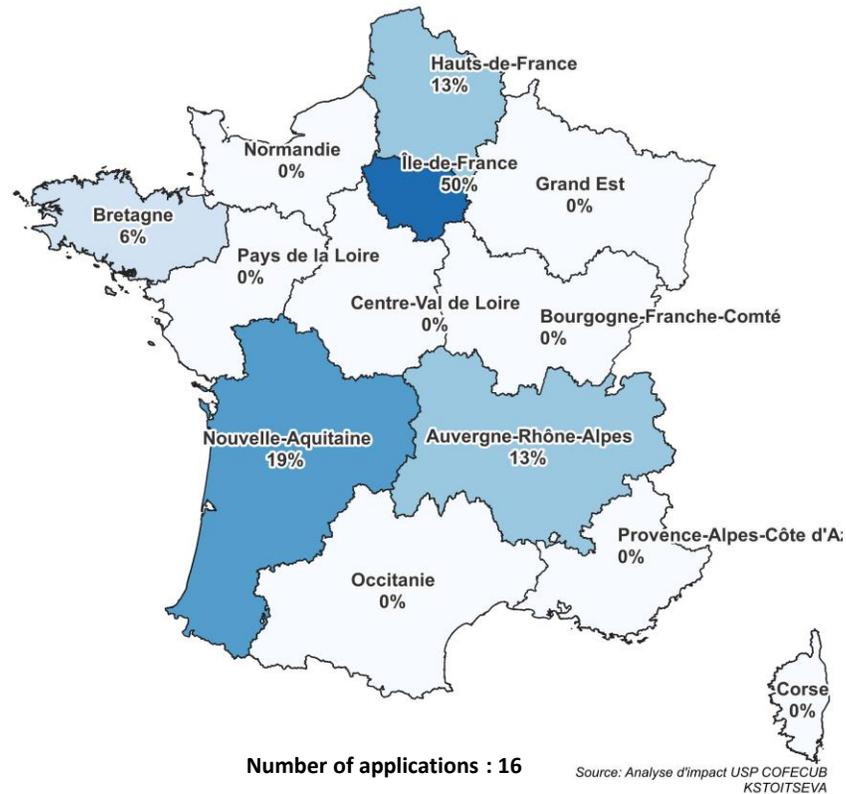


Ten regions are concerned for applications with Ile-de-France ahead but only five benefit selections (with Ile-de-France still ahead)

% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFECUB Regional percentages of applications and selections *Social Sciences 2006-2023*

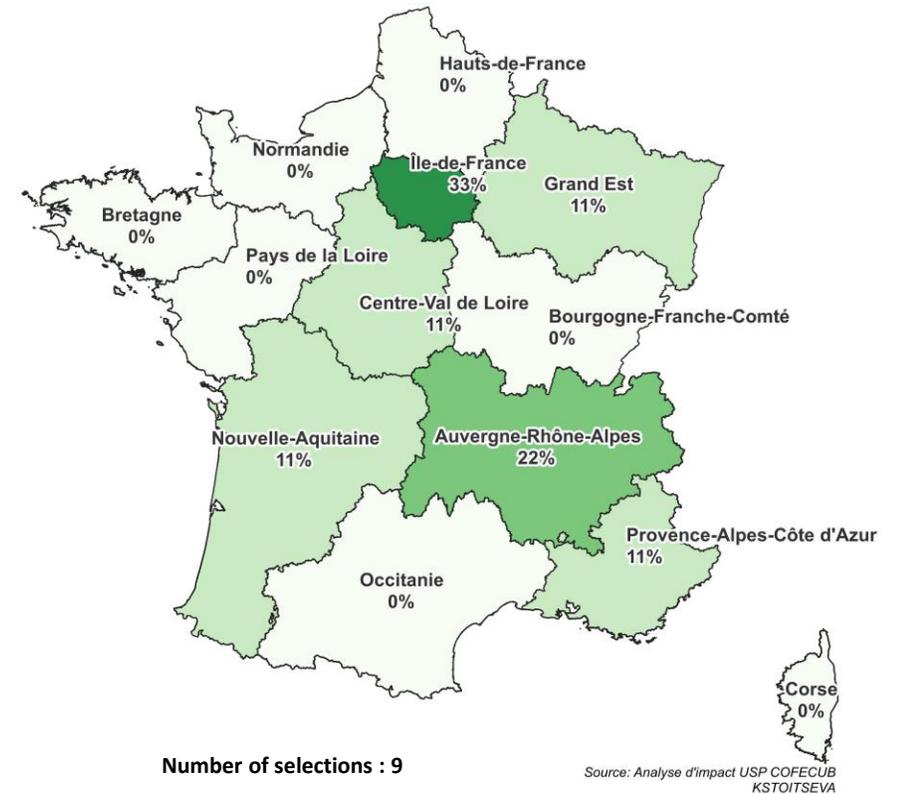
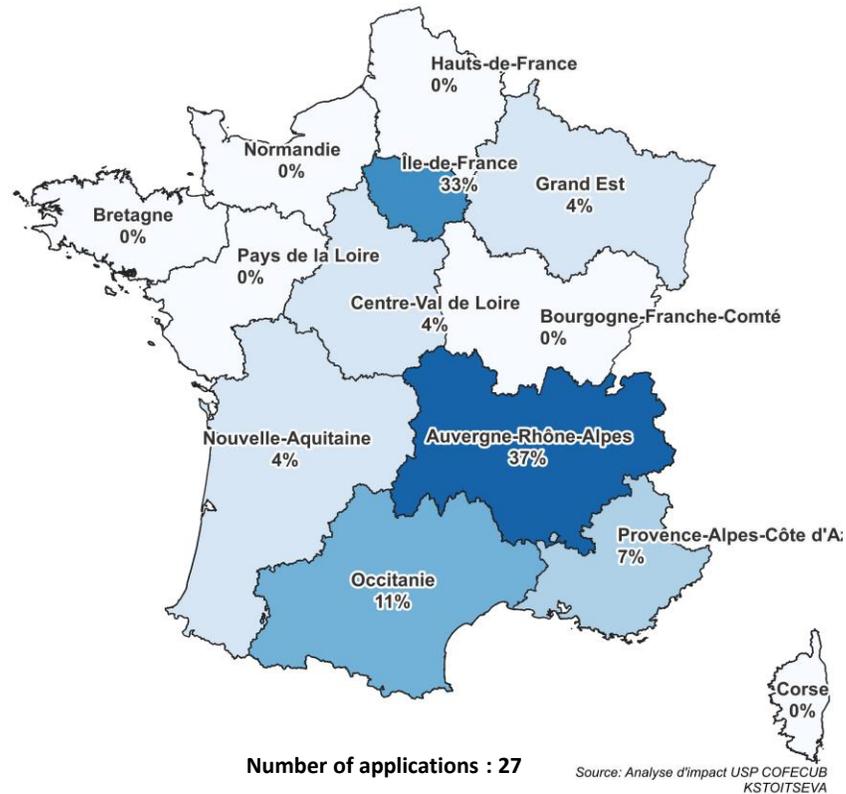


Five regions are concerned for applications with Ile-de-France ahead but only two benefit 1 selection each (Nouvelle-Aquitaine and Bretagne)

% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFECUB Regional percentages of applications and selections *Engineering Sciences 2006-2023*



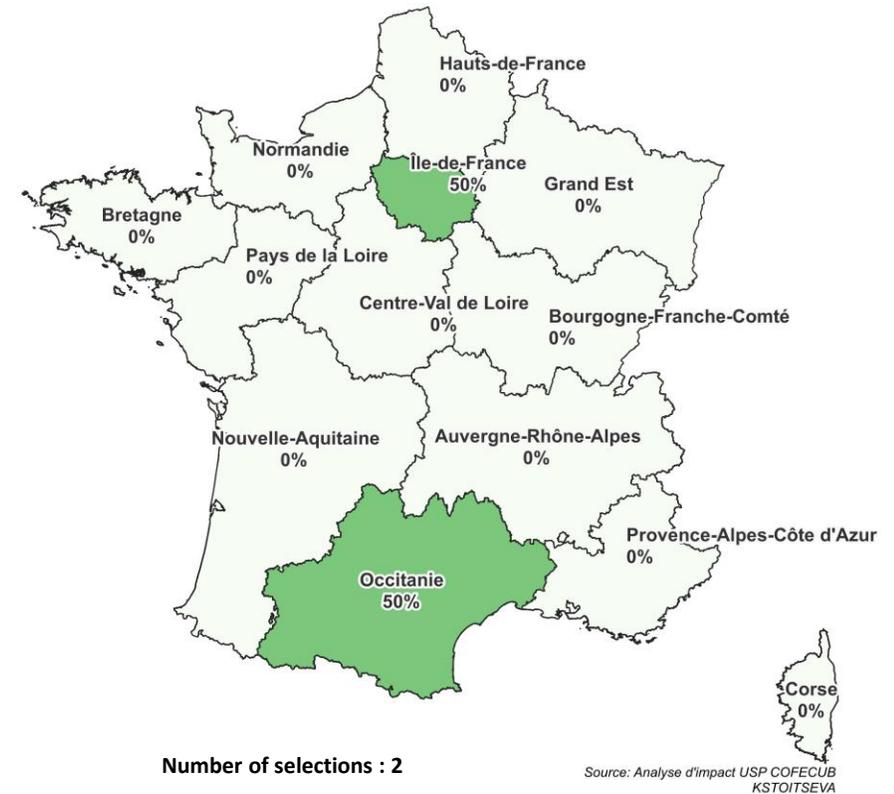
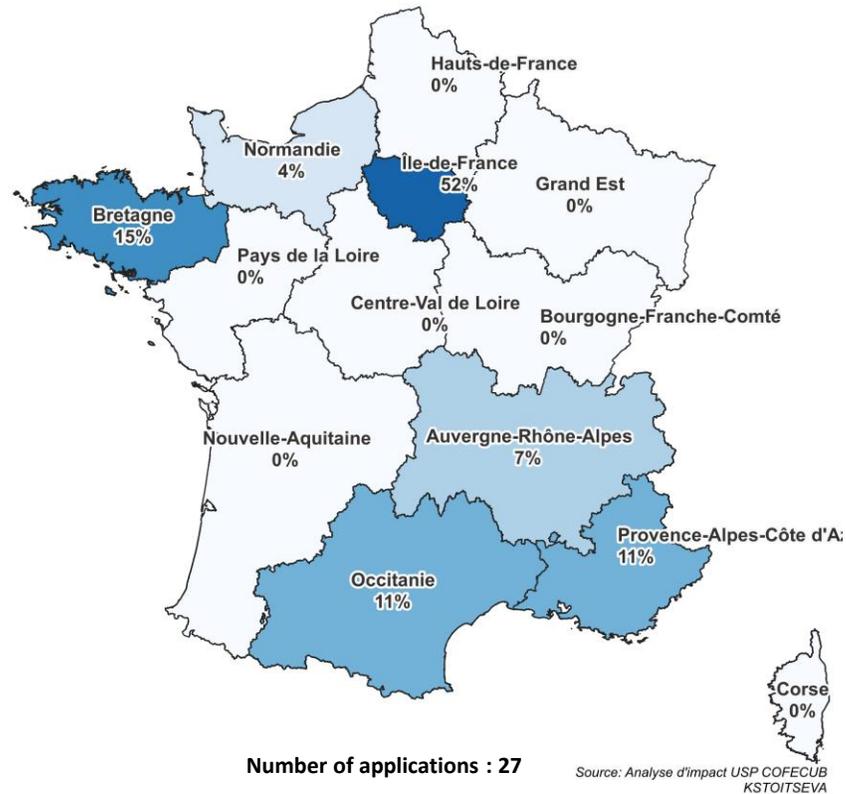
Seven regions are concerned for applications with Auvergne-Rhône-Alpes ahead. Six regions benefit selections (with Ile-de-France ahead)

% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFEUCB

Regional percentages of applications and selections *Information technology 2006-2023*

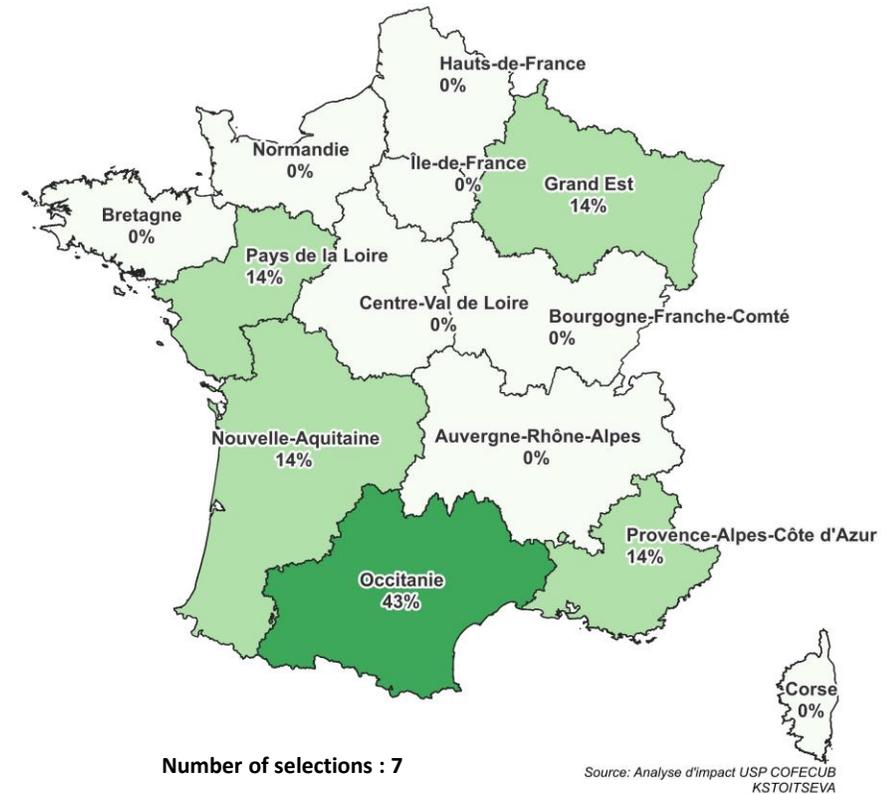
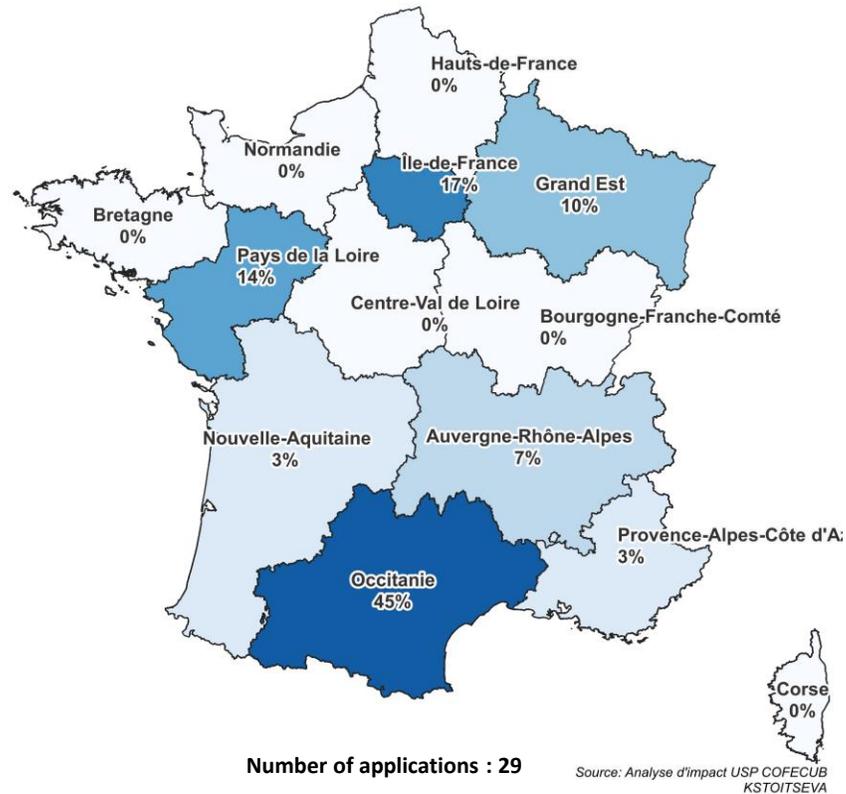


Six regions are concerned for applications with Ile-de-France ahead. Only two benefit 1 selection each (Ile-de-France and Occitanie)

% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN

REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2006-2023

USP-COFEUCB Regional percentages of applications and selections *Agronomy/Ecology 2006-2023*



Seven regions are concerned for selections with Occitanie ahead. Only five benefit selections (with Occitanie still ahead)

% OF REGIONAL APPLICATIONS/SELECTIONS FOR EACH SCIENTIFIC DOMAIN AS COMPARED TO THE TOTAL NUMBER OF APPLICATIONS/SELECTIONS IN THE SCIENTIFIC DOMAIN