



**MINISTÈRE
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SUPÉRIEUR
ET DE LA RECHERCHE**

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FRANCE – AUSTRALIA

**Scientific impact of the program FAST/FASIC
(2005-2022)**

MESR-DAEI / MEAE

2023

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

GENERAL PRESENTATION OF THE PROGRAM

Creation : FAST : 2005 ; FASIC : 2012

The purpose of this program is to develop excellence scientific and technological exchanges between the French and Australian laboratories, by promoting new scientific collaborations and integrating in the projects young researchers and PhD students.

Total budget (France + Australia) : around 190 000 € / year

>> including budget from the French part : around 95 000 € / year

>> including budget from the Australian part : around 95 000 € / year

Average budget per project (France) : around 6 700 € / year

Average budget per project (France + Australia) : around 13 400 € / year

Number of new funded projects per year : around 14

From 2005-2022 :
902 applications submitted
259 projects funded

Campus France (2005-2022)

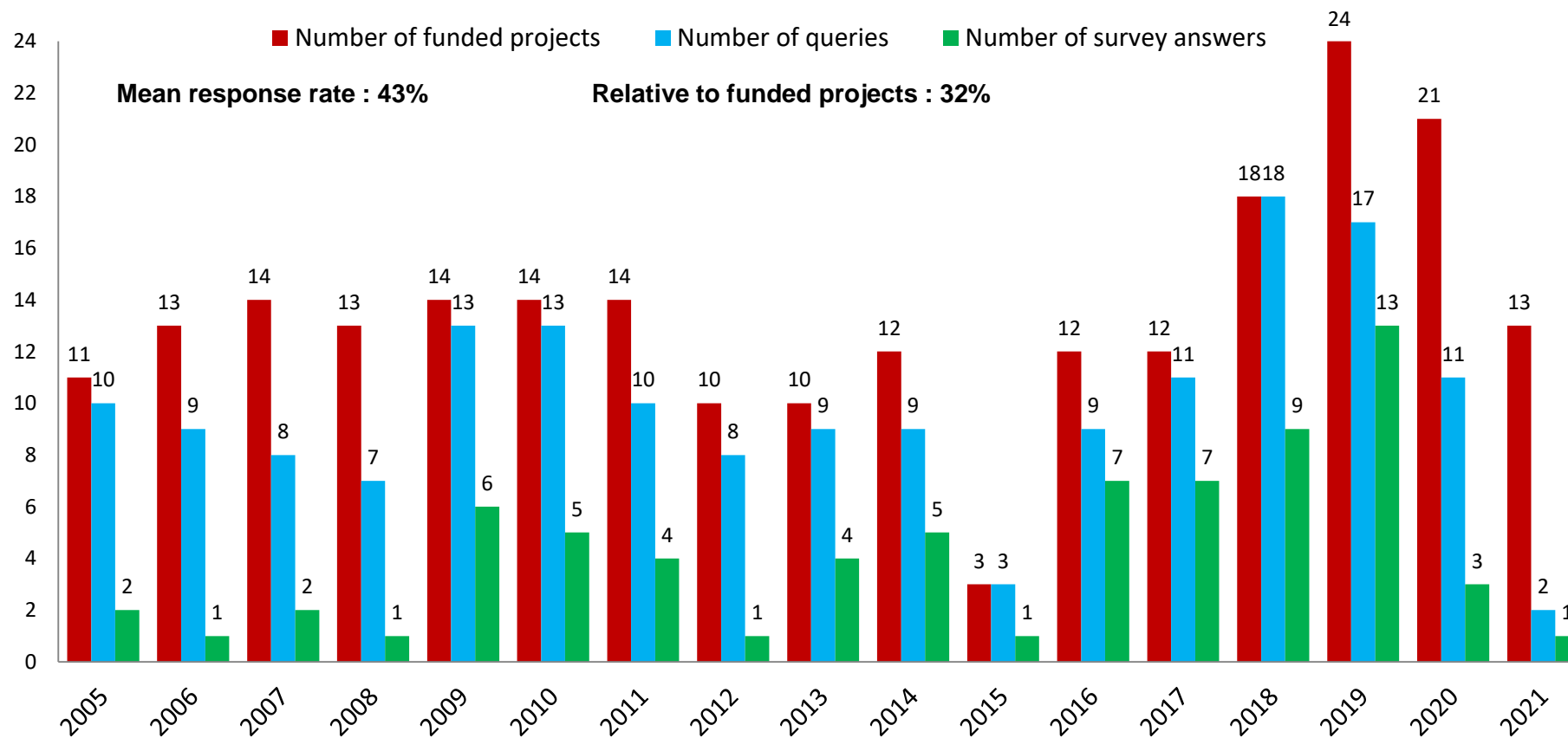
- Information about the PHC FAST and FASIC applications

Survey (2005-2021)

- Target : French Principal Investigators of selected projects between 2005 and 2021
- Survey duration : 5 weeks between February and March 2023
- **43%** response ratio (73 respondents for 171 queries)

ANSWERS TO THE SURVEY

Average response rate to the survey : 43 % (73 answers)



228 funded projects between 2005 and 2021, 171 valid email addresses



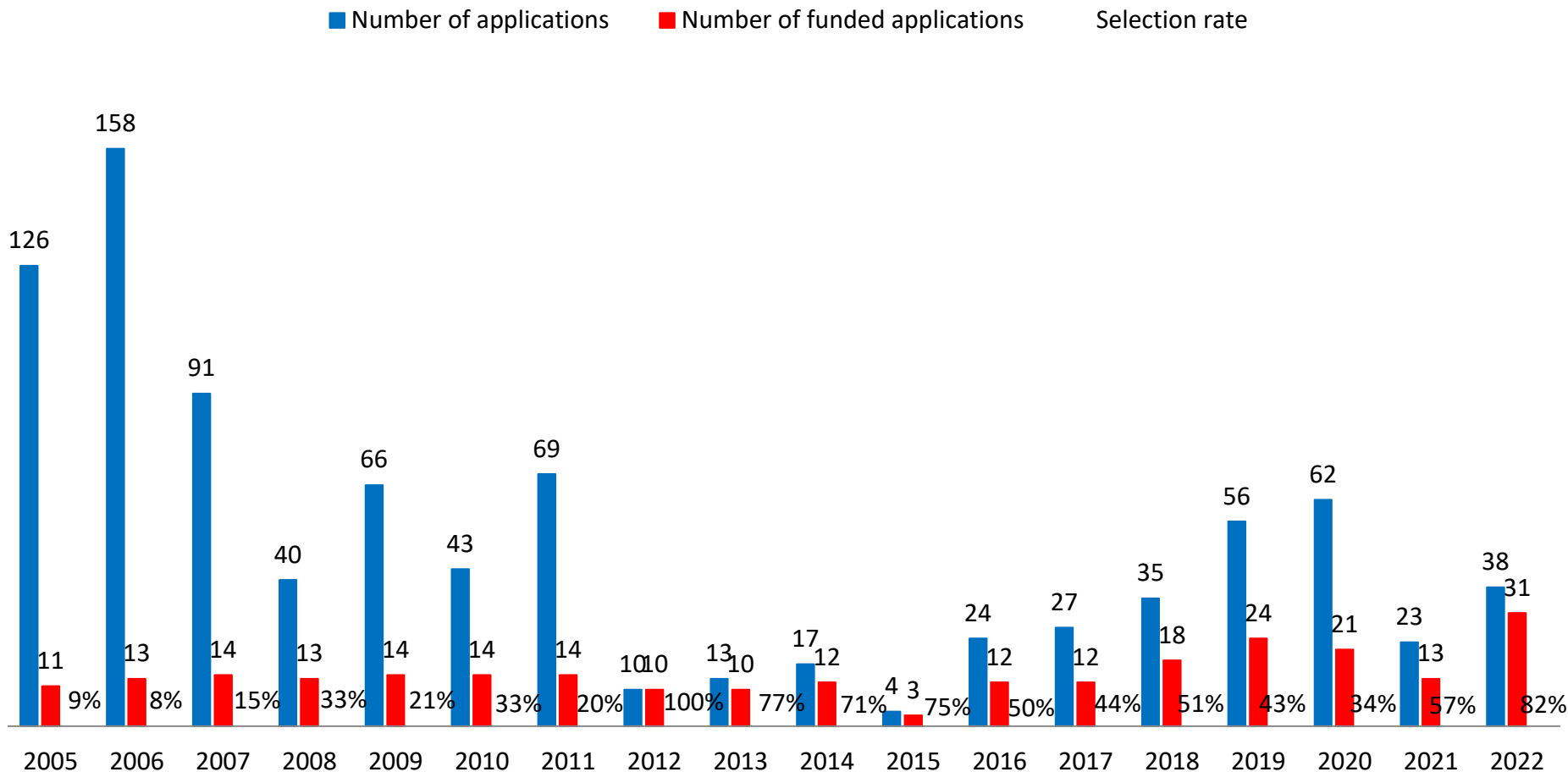
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2005-2022 Key Points

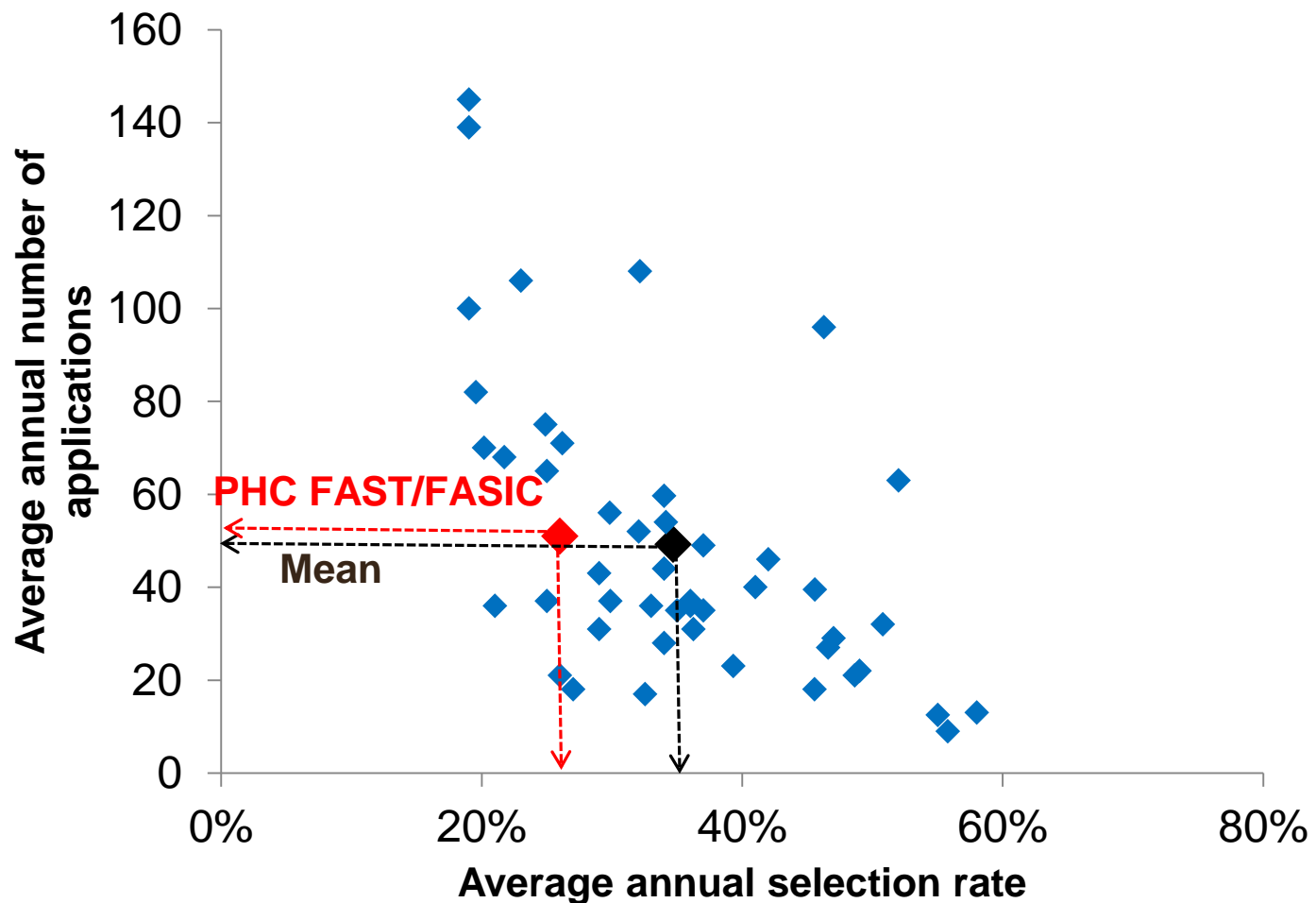
NUMBER OF APPLICATIONS AND SELECTION RATE

Average selection rate from 2005-2022: **29%**



Large fluctuations in the number of applications

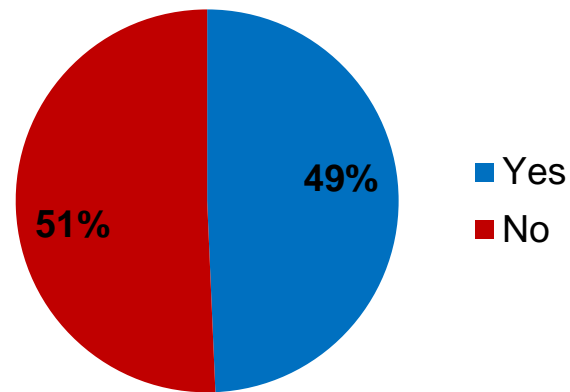
NUMBER OF APPLICATIONS VS SELECTION RATE (COMPARISON BETWEEN 47 DIFFERENT BILATERAL PROGRAMS)



Average annual selection rate for 2005-2021 : **26% vs 35% mean**
Average annual number of applications 2005-2021 : **51 vs 49 mean**

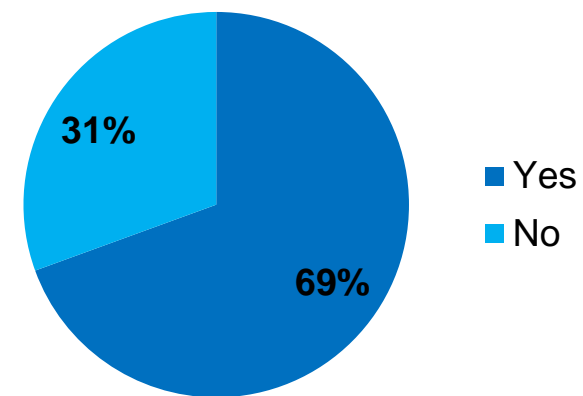
BEFORE THE FAST/FASIC PROJECT (1/2)

Did you already cooperate with Australia in the past ?



Data from 73 responses

If yes, was it with the same partner?



Data from 36 responses

BEFORE THE FAST/FASIC PROJECT (2/2)

With which scientific collaboration program ?	
Co-funding with Australian institutions	21%
PHC FAST ou FASIC	14%
French National Research Agency	7%
European H2020	7%
French Government Grant	7%
CNRS International Research Project	7%
CNRS International Emerging Action	4%
CNRS International Research Laboratory	4%
Private sector funding	4%
Other	25%

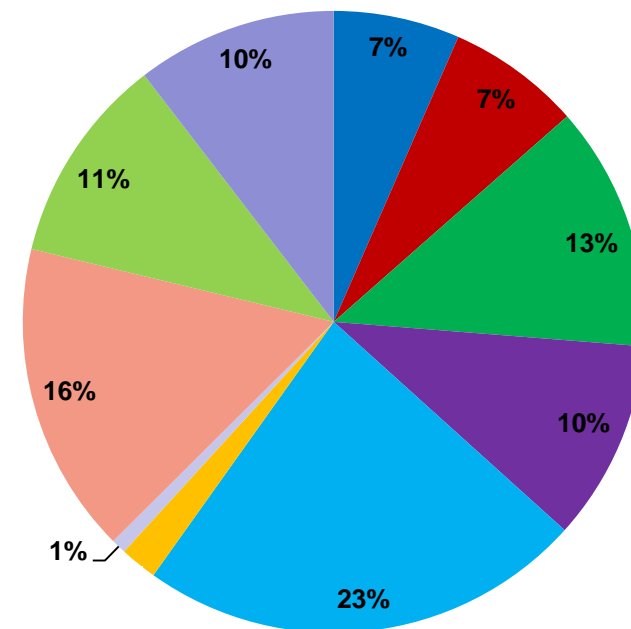
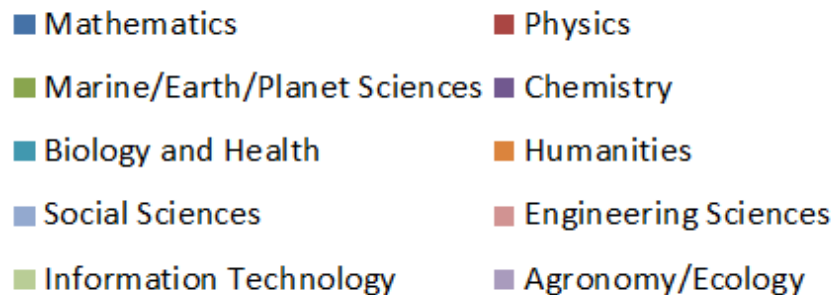
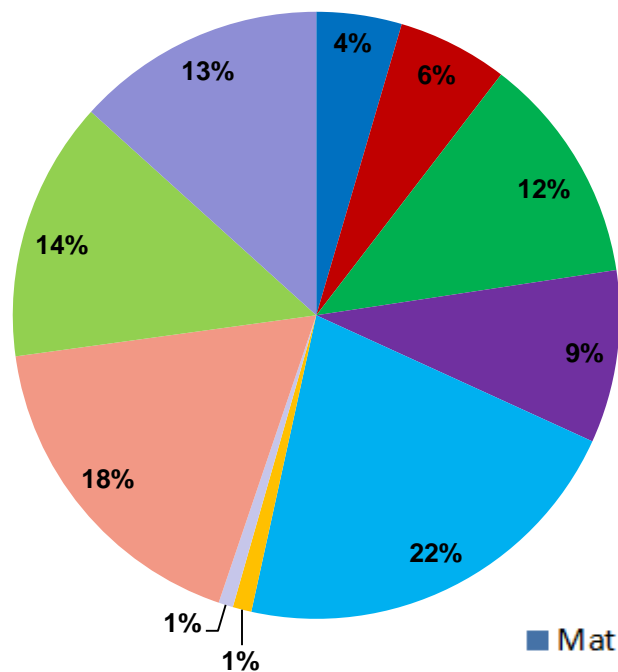
Plus 52 previous cooperations based on other exchanges (co-publication, meetings, joint PhD...)

Data from 28 responses

SCIENTIFIC DOMAINS OF PROJECTS 2005-2022

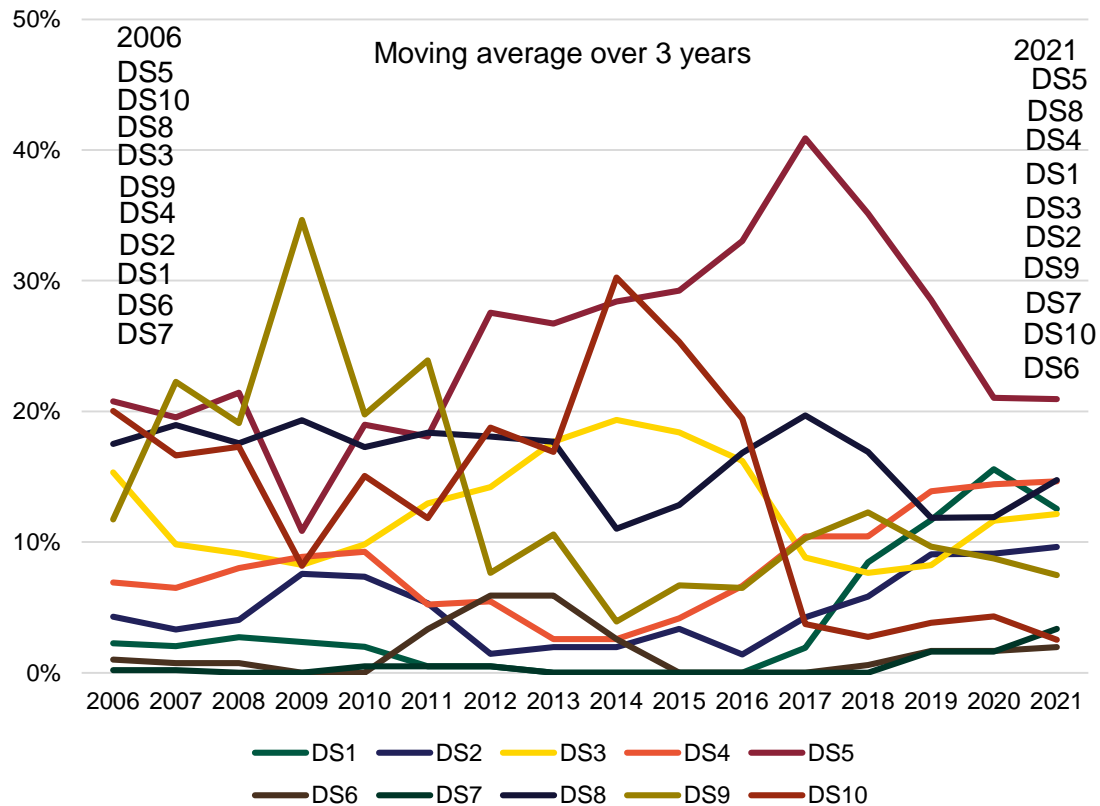
Number of applications : **902**

Number of funded projects : **259**

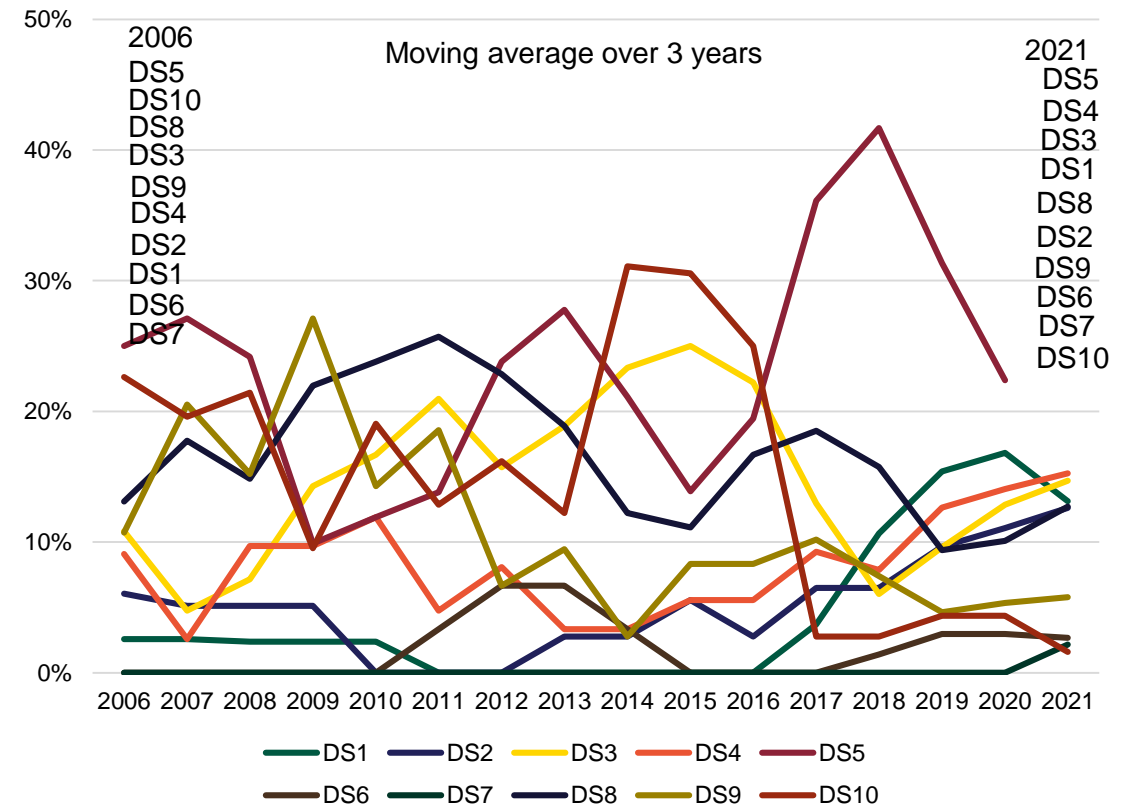


SCIENTIFIC DOMAINS : EVOLUTION 2006-2021

ANNUAL EVOLUTION OF APPLICATIONS (%)



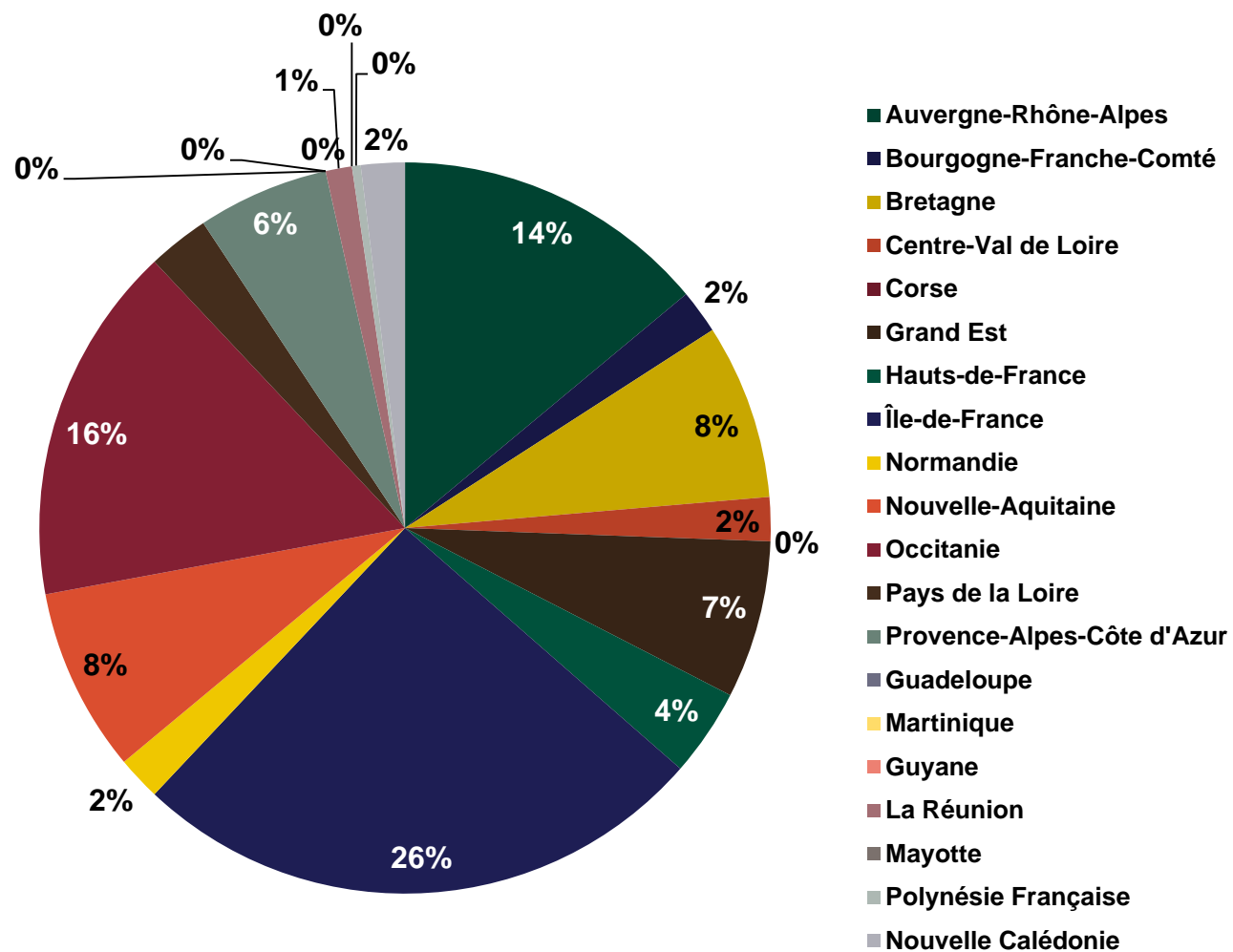
ANNUAL EVOLUTION OF SELECTIONS (%)



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

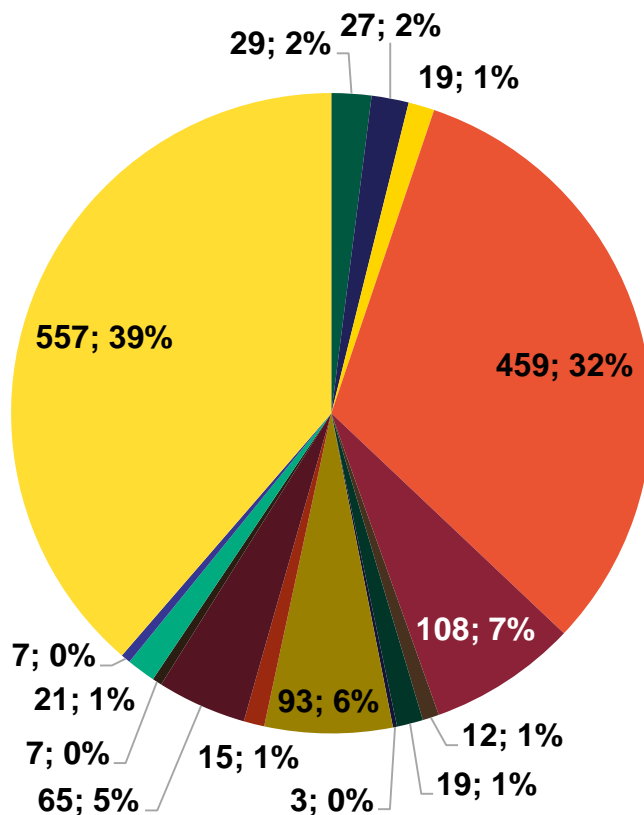
REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2005-2022



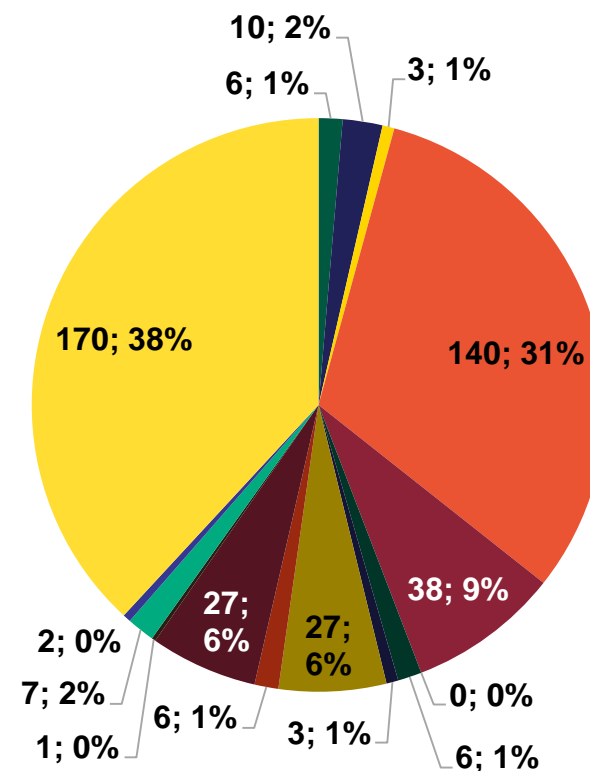
FRENCH PARTICIPATING INSTITUTIONS 2005-2022

(DATA FROM CAMPUS FRANCE)

APPLICATIONS

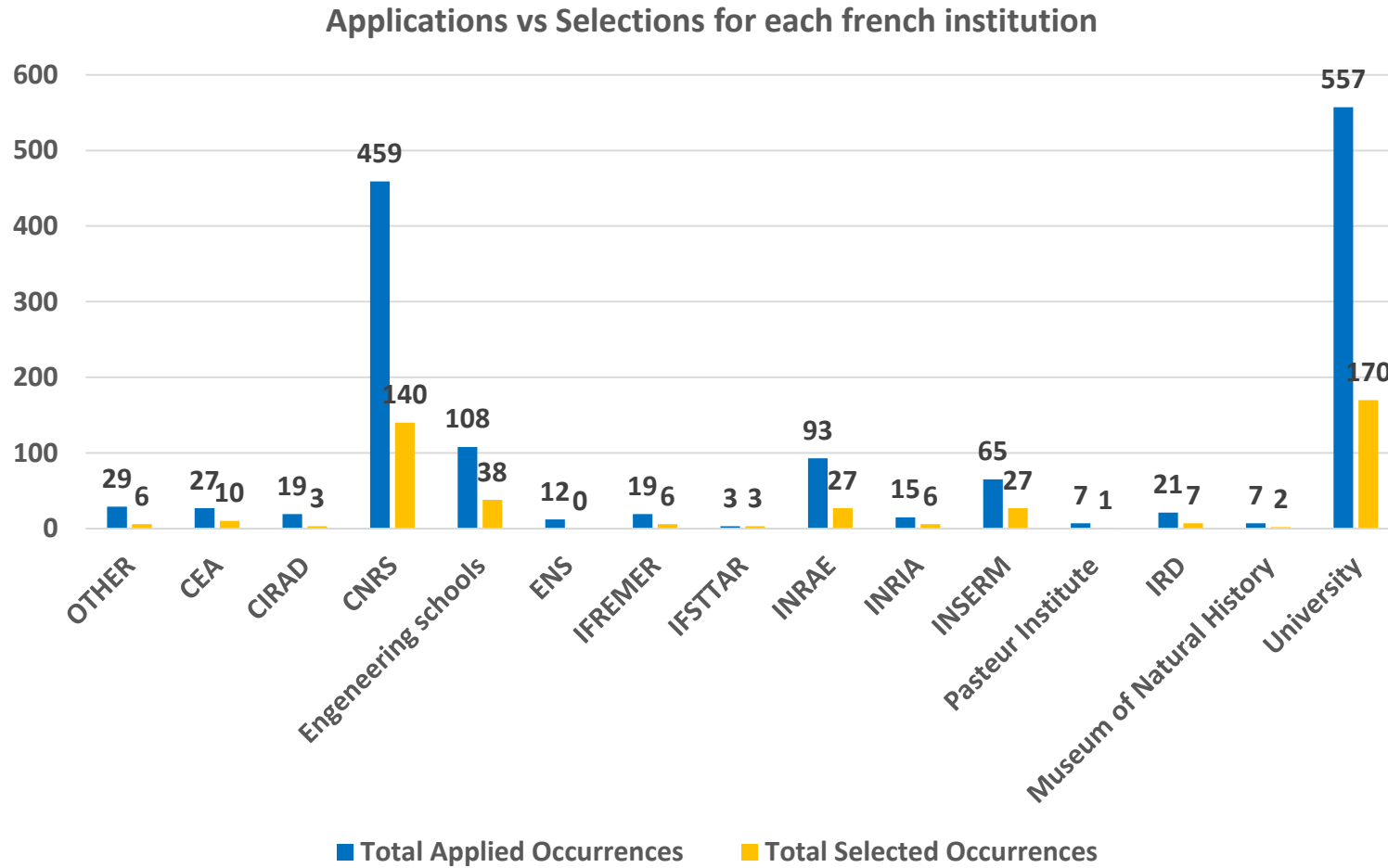


FUNDED PROJECTS



FRENCH PARTICIPATING INSTITUTIONS 2005-2022

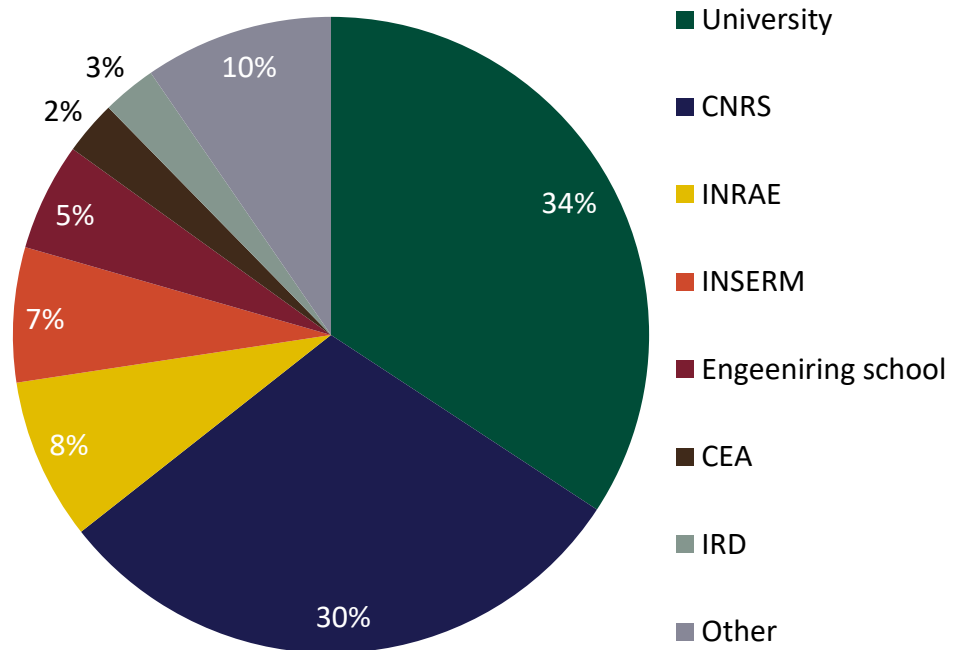
(DATA FROM CAMPUS FRANCE)



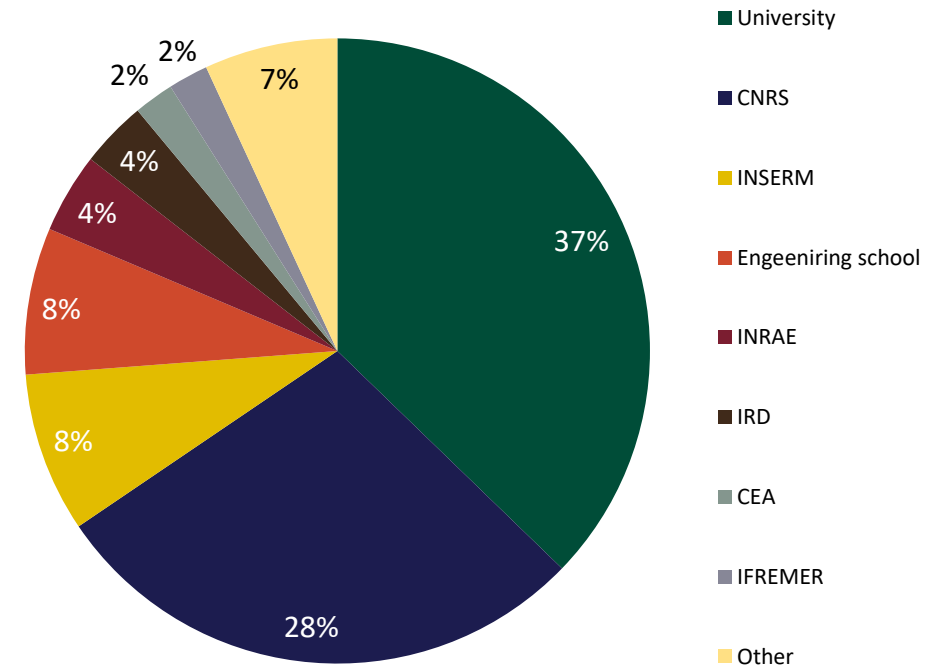
FRENCH PARTICIPATING INSTITUTIONS 2006-2018

(DATA FROM THE SURVEY)

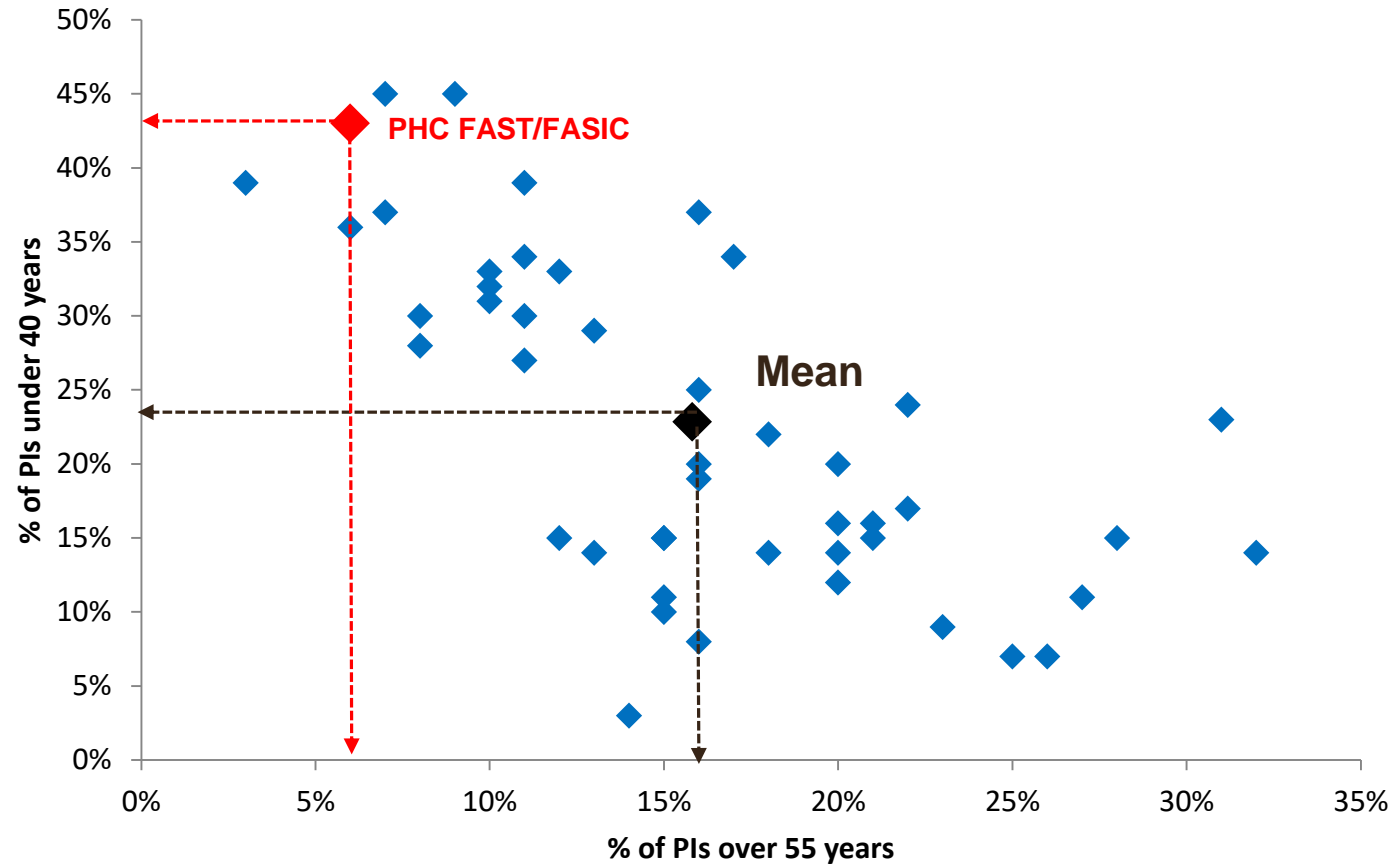
PI's employers



Laboratories authorities



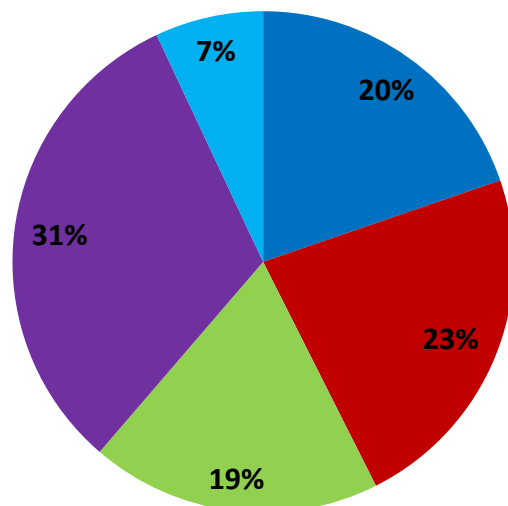
AGE OF PRINCIPAL INVESTIGATORS (PI) (COMPARISON BETWEEN 47 DIFFERENT BILATERAL PROGRAMS)



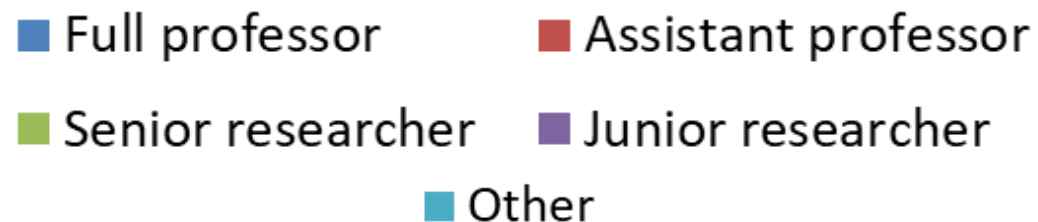
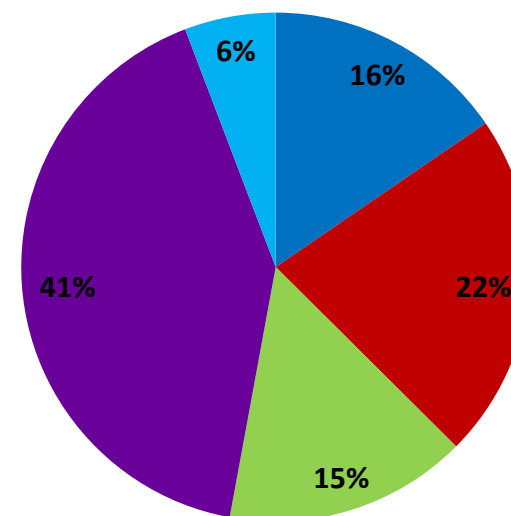
PIs under 40 years : 43% vs 22% mean
PIs over 55 years : 6% vs 16% mean
51% of the PIs are between 40 and 55 years

FRENCH PIS (PRINCIPAL INVESTIGATORS) : STATUS

Applicants professional status

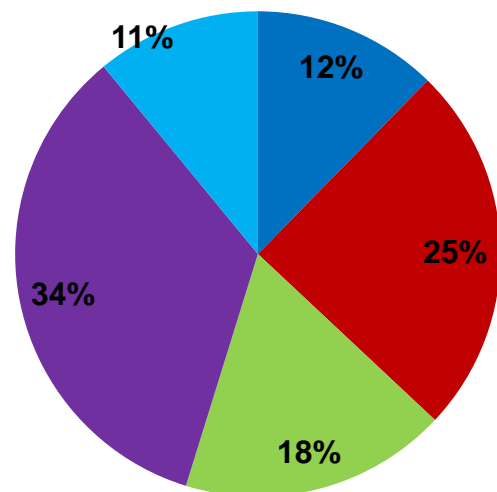


Laureates professional status

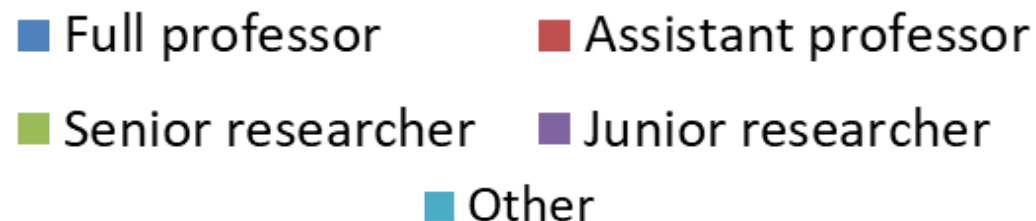
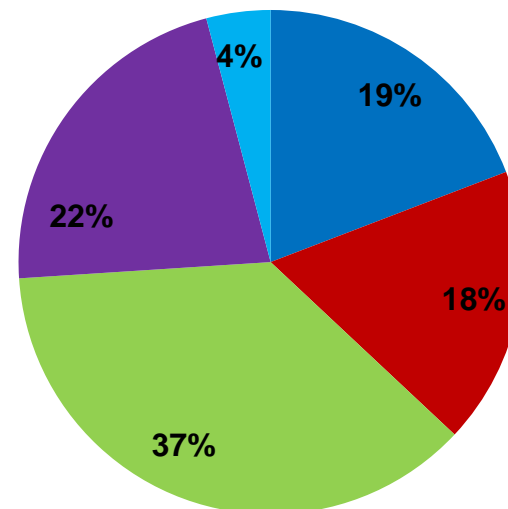


FRENCH PIS (PRINCIPAL INVESTIGATORS) : STATUS

**Previous professional status
(at the beginning of the project)**



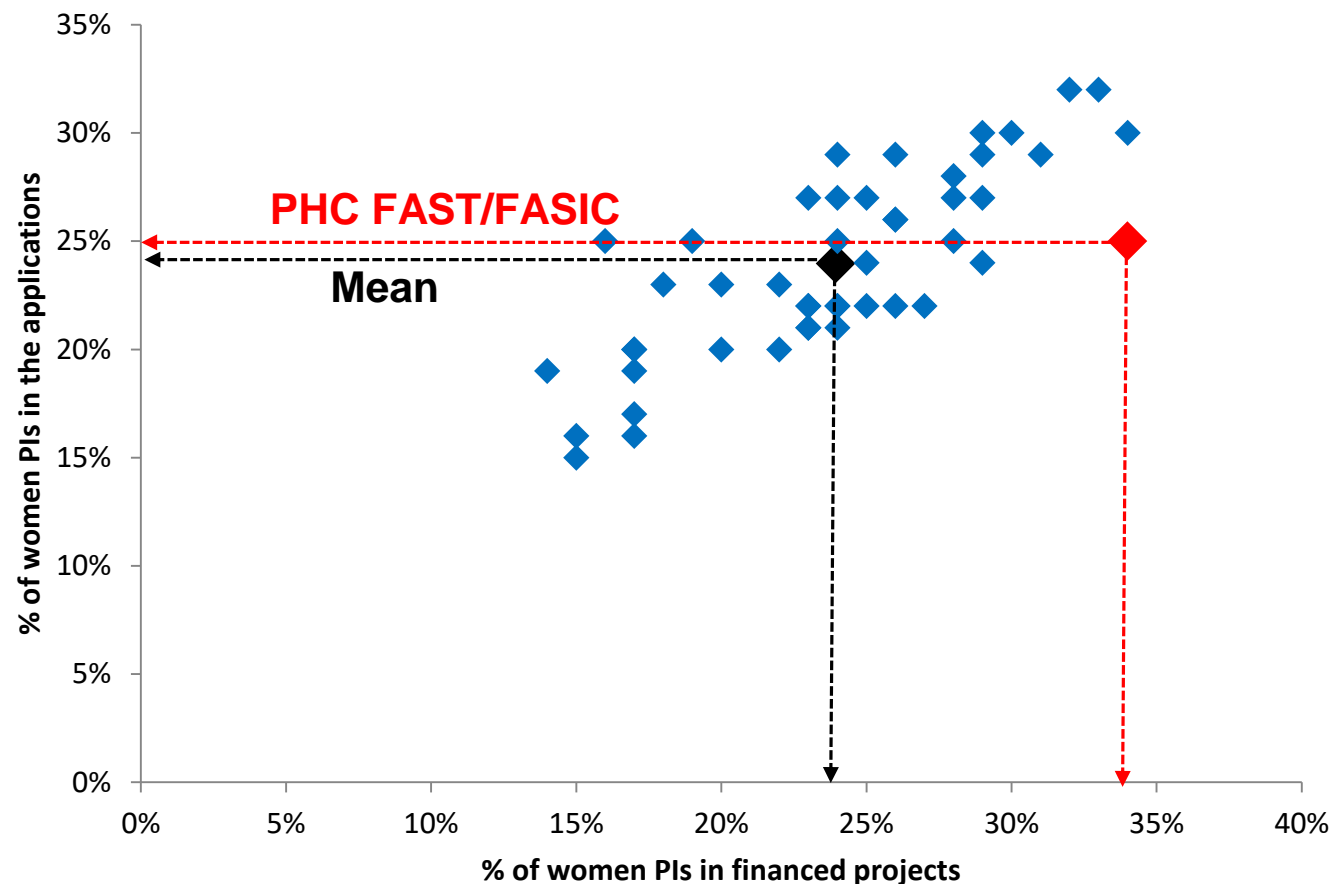
Current professional status



Data from 73 responses

IMPLICATION OF WOMEN (FRANCE)

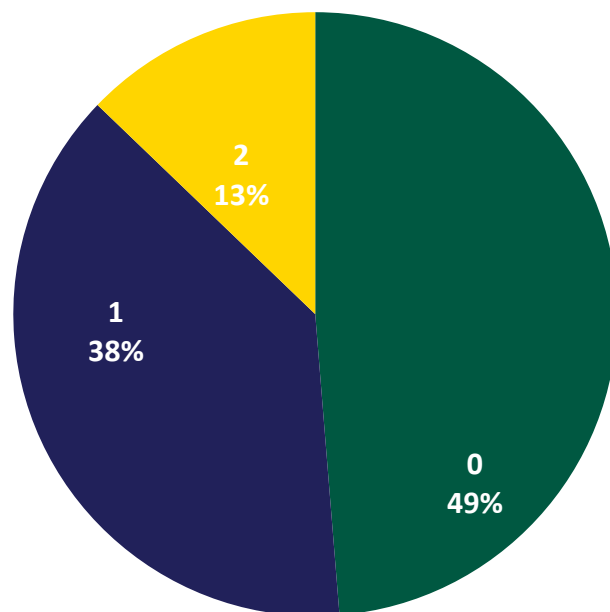
(Comparison between 47 different bilateral programs)



% of women PIs in the applications : 25% vs 24% mean
% of women PIs in the selected projects : 34% vs 24% mean

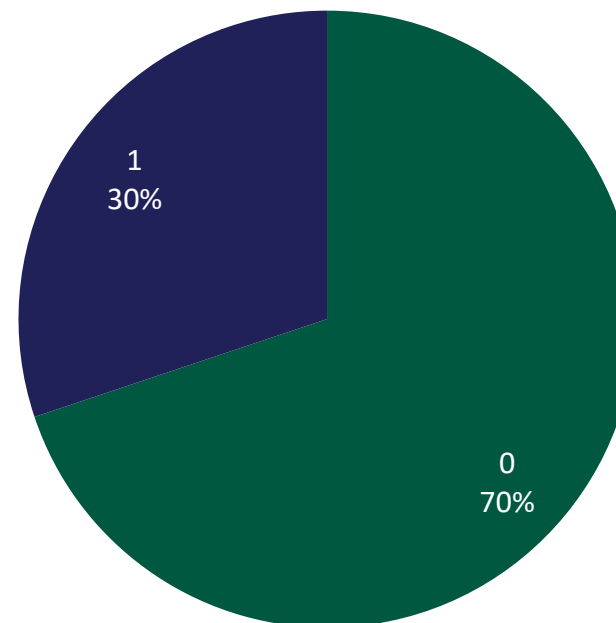
PARTICIPATION OF FRENCH YOUNG RESEARCHERS

Number of PhD students



48% of projects involve at least one PhD student

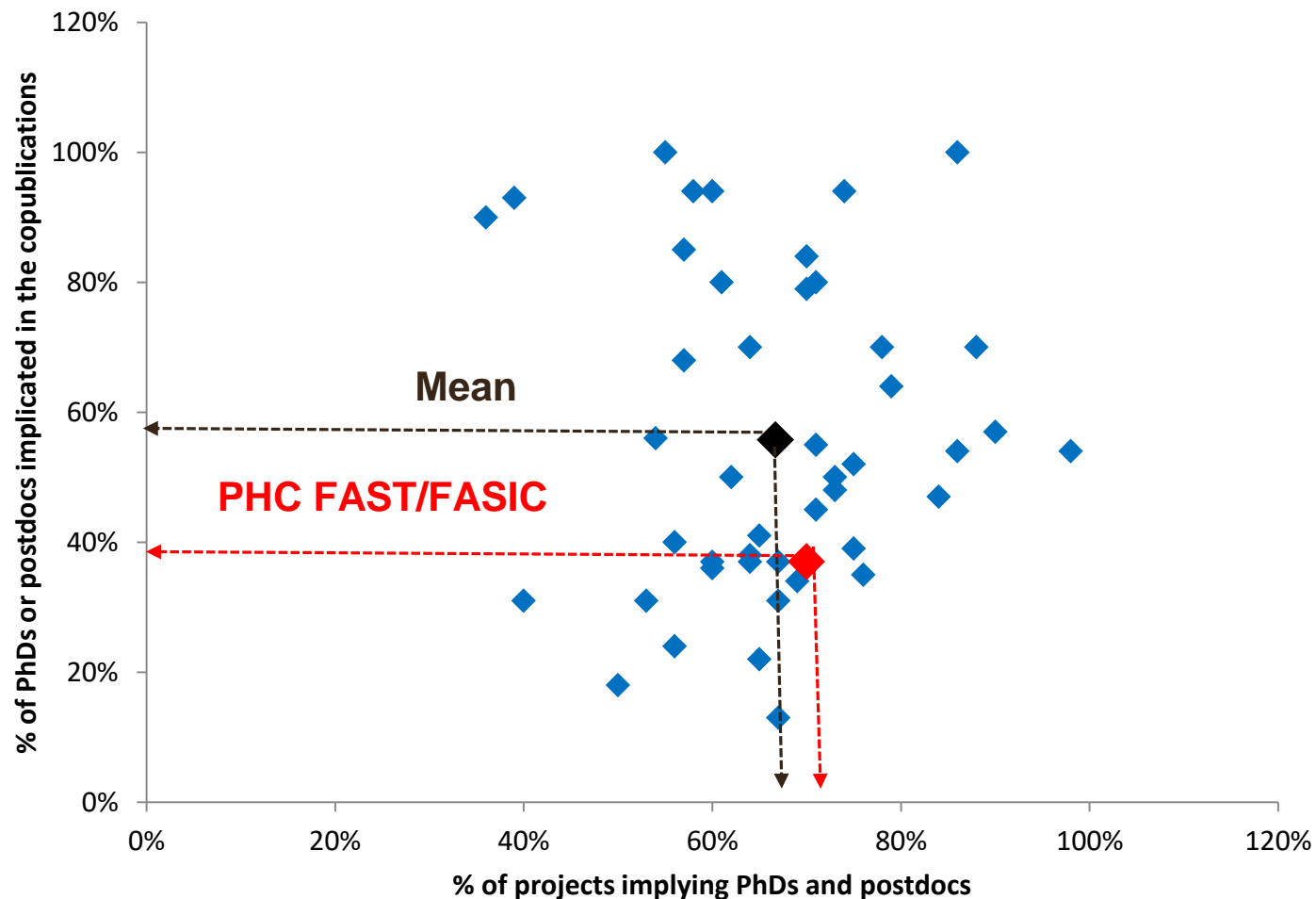
Number of post-doctoral researchers



30% of projects involve at least one post-doctoral researcher

Data from 73 responses

IMPLICATION OF YOUNG RESEARCHERS (Comparison between 47 different bilateral programs)



% of projects implying young researchers : 70% vs 67% mean
% of PhD or postdoc implicated in the copublications : 37% vs 56% mean

Data from 73responses

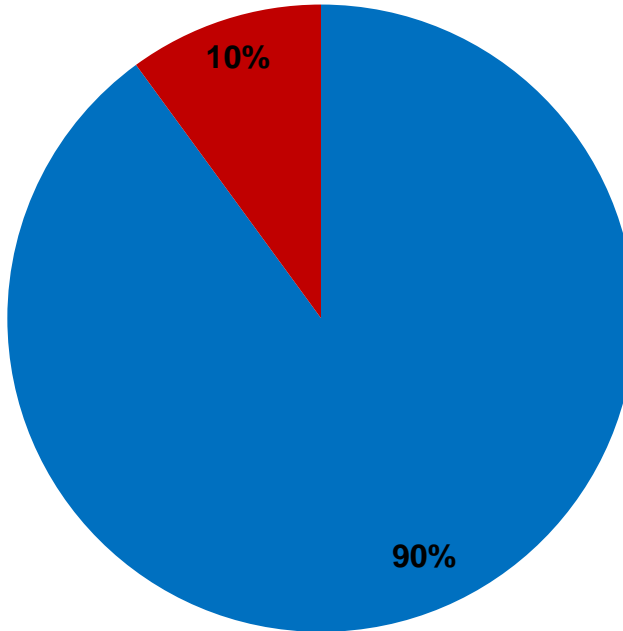


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MOBILITY

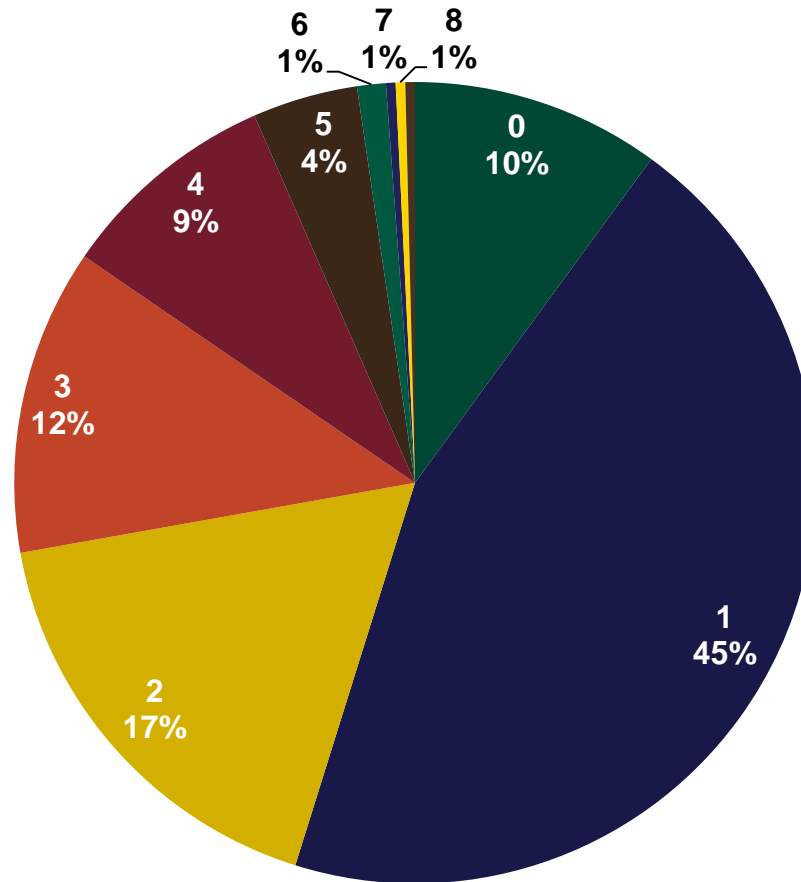
MOBILITIES



■ % of projects with mobilities ■ % of projects without mobilities

Data from 497 outgoing mobilities and 27 incoming mobilities

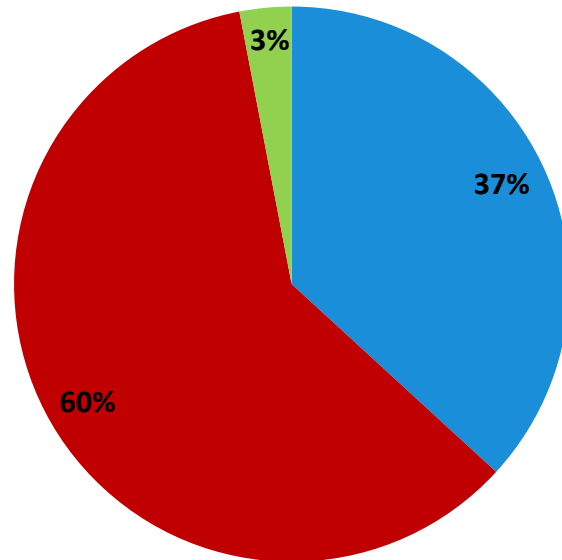
NUMBER OF MOBILITIES PER PROJECT



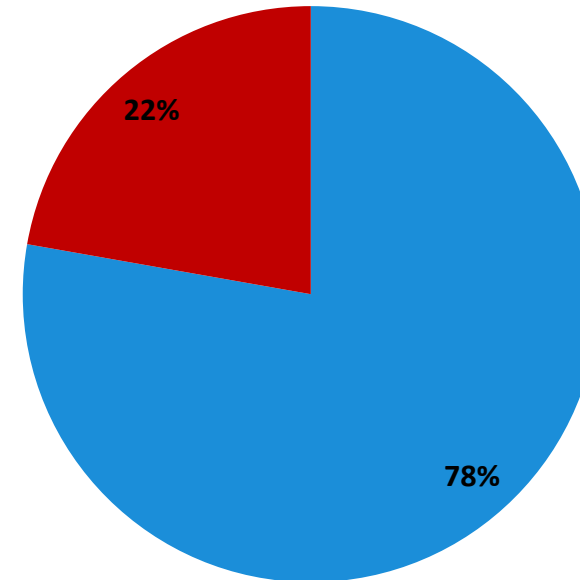
Data from 497 outgoing mobilities and 27 incoming mobilities

MOBILITY : DURATION

France → Australia



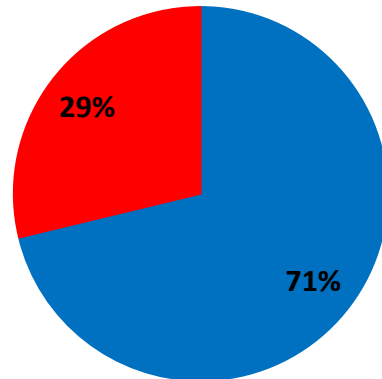
Australia → France



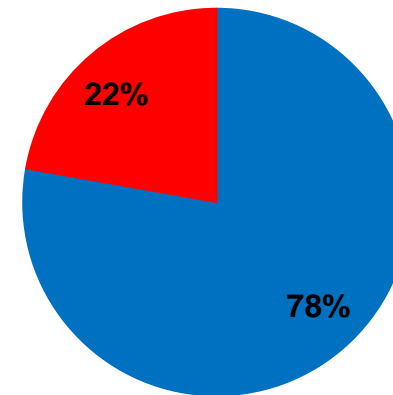
- < 15 days
- between 15 days and 3 months
- > 3 months

MOBILITY : GENDER DISTRIBUTION

France → Australia



Australia → France

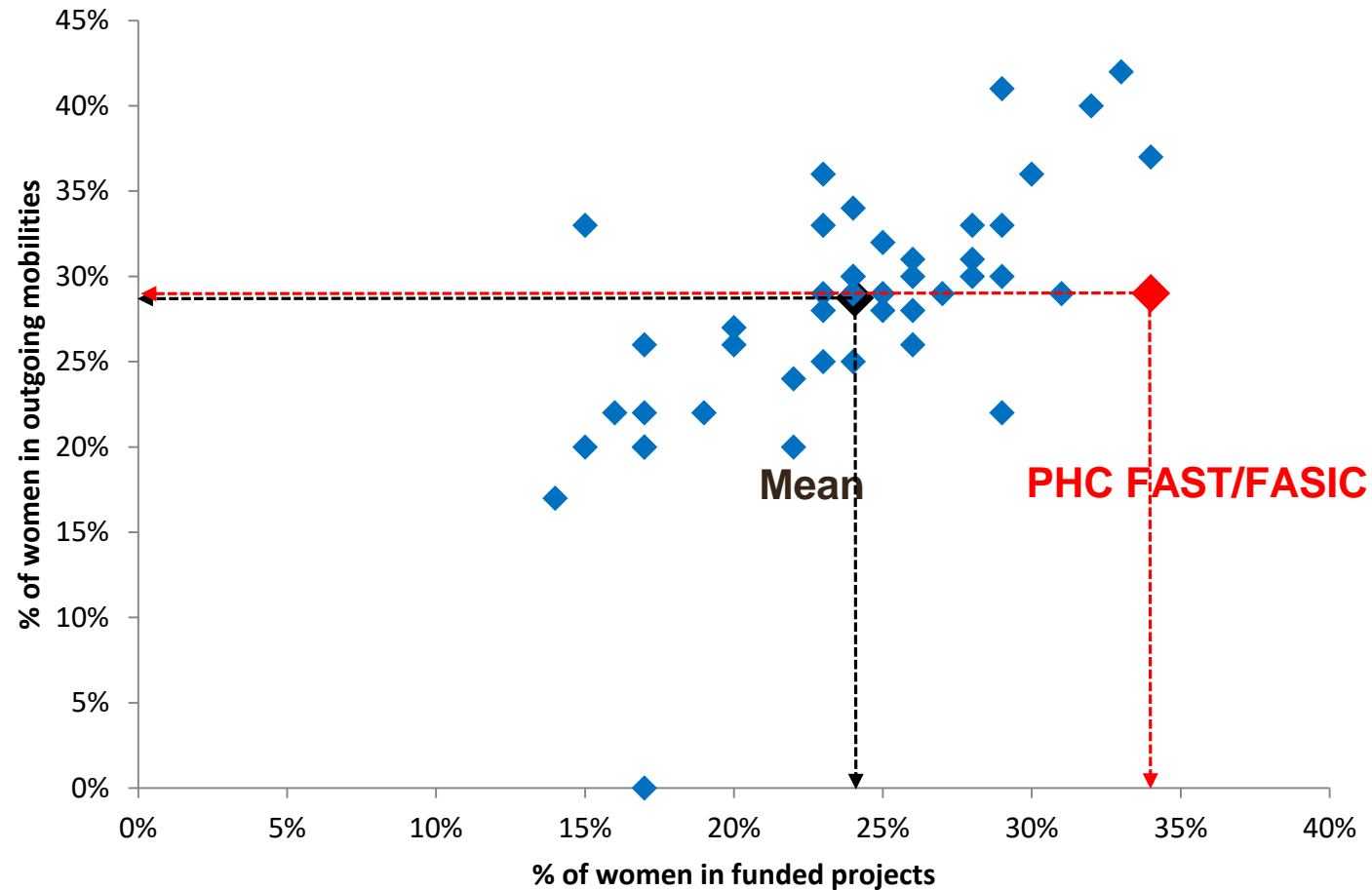


■ Men ■ Women

Data from 497 outgoing mobilities and 27 incoming mobilities

WOMEN MOBILITY FRANCE – AUSTRALIA

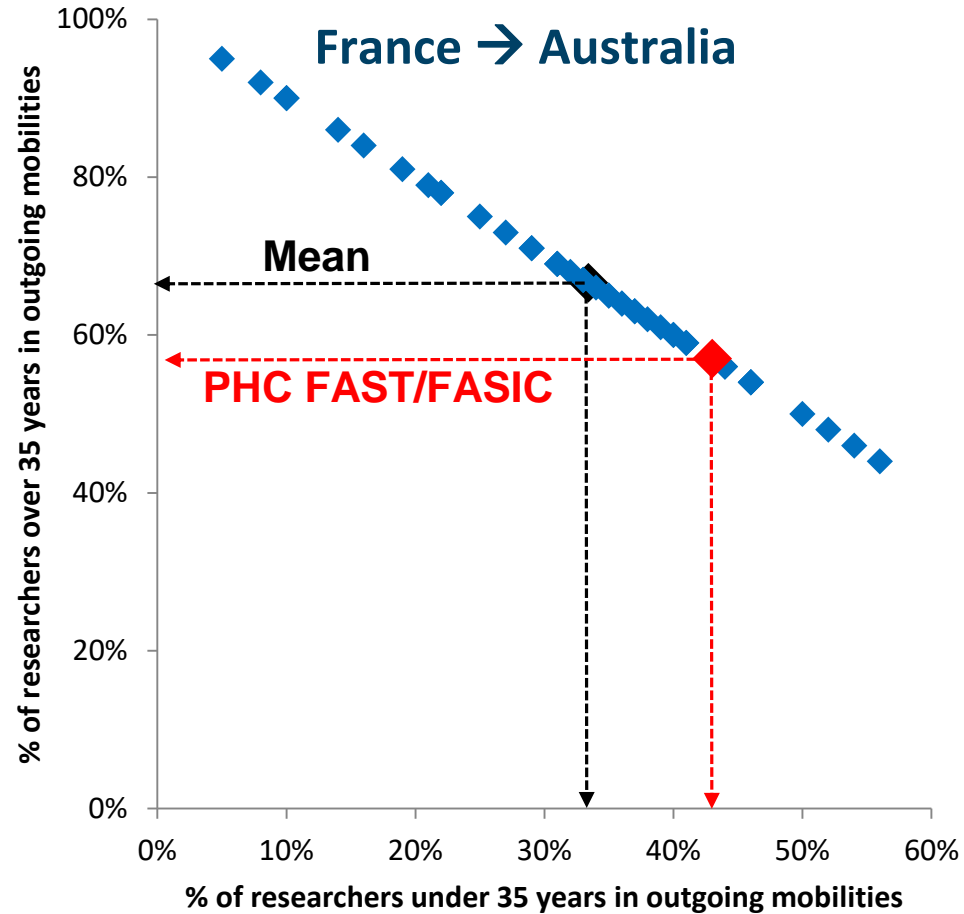
(Comparison between 47 different bilateral programs)



% of women researchers in the selected projects : 34% vs 24% mean
% of women researchers in outgoing mobilities : 29% vs 29% mean

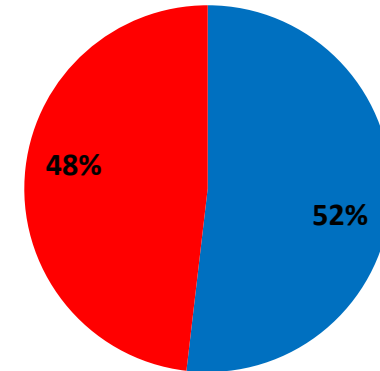
YOUNG RESEARCHERS MOBILITY FRANCE – AUSTRALIA

(Comparison between 47 different bilateral programs)



Australia → France

Incoming mobilities



- % of researchers under 35 years in incoming mobilities
- % of researchers over 35 years in incoming mobilities

% of french young researchers in outgoing mobilities : **43% vs 33% mean**
 % of australian young researchers in incoming mobilities : **52% vs 44% mean**



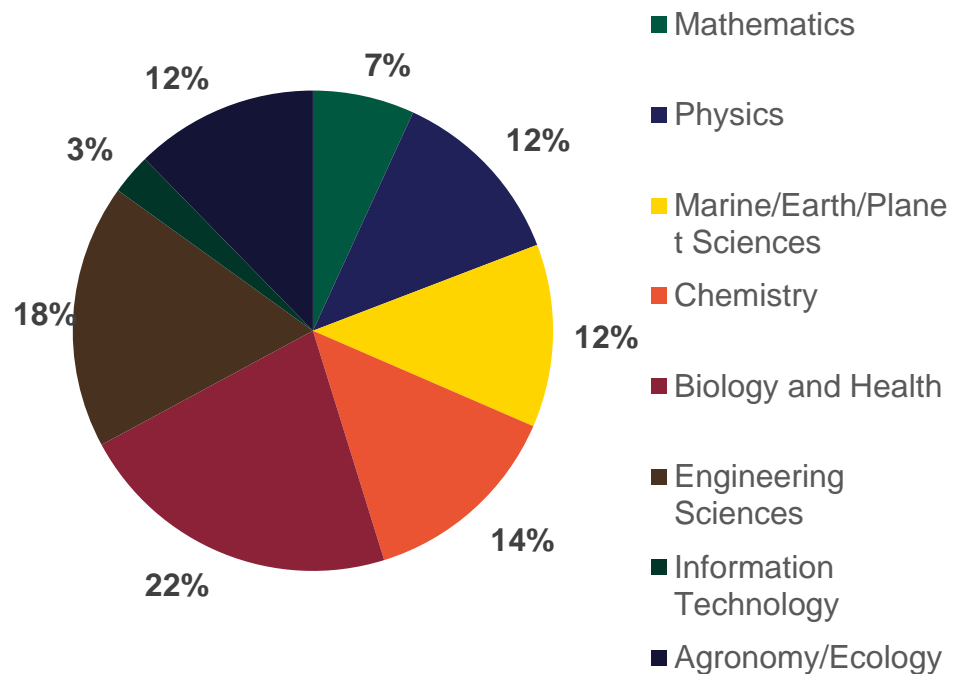
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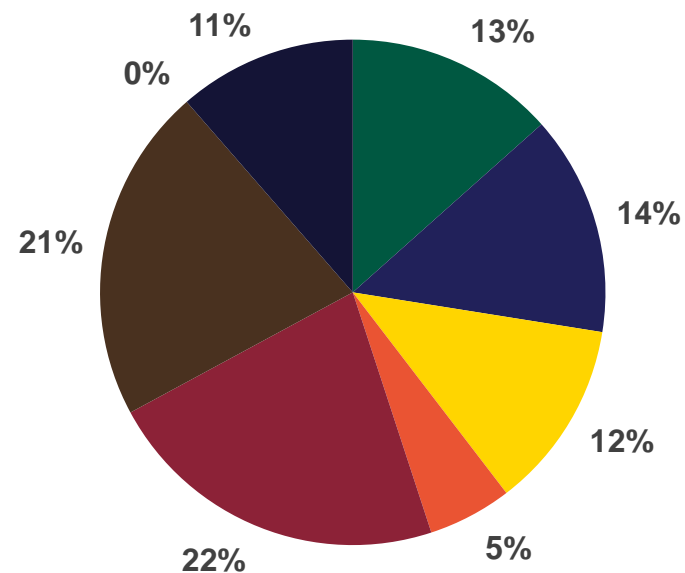
**SCIENTIFIC
PRODUCTION
(2005-2022)**

Scientific output (1/2)

Funded projects 2005-2021 (respondents)



Percentage of copublications



No answers to the survey for Humanities and Social sciences

Data from the 73 responses

Scientific output (2/2)

Data from 73 funded projects

	Number of financed projects in the survey	Average number of co- publications per project
Mathematics	5	4,00
Physics	9	2,33
Marine/Earth/Planet Sciences	9	2,00
Chemistry	10	0,80
Biology and Health	16	2,06
Humanities	0	
Social Sciences	0	
Engineering Sciences	13	2,46
Information Technology	2	0,00
Agronomy / Ecology	9	1,89
TOTAL	73	

Overall average annual number of copublications per project : 2,04 vs 0,96 mean

70% of funded projects led to one co-publication at least

26% of copublications include at least 1 PhD or PostDoc

The average annual rate of publication for young researchers involved in the projects is **0,65**

Each young researcher involved in the publications has published **1,65 publication per year**

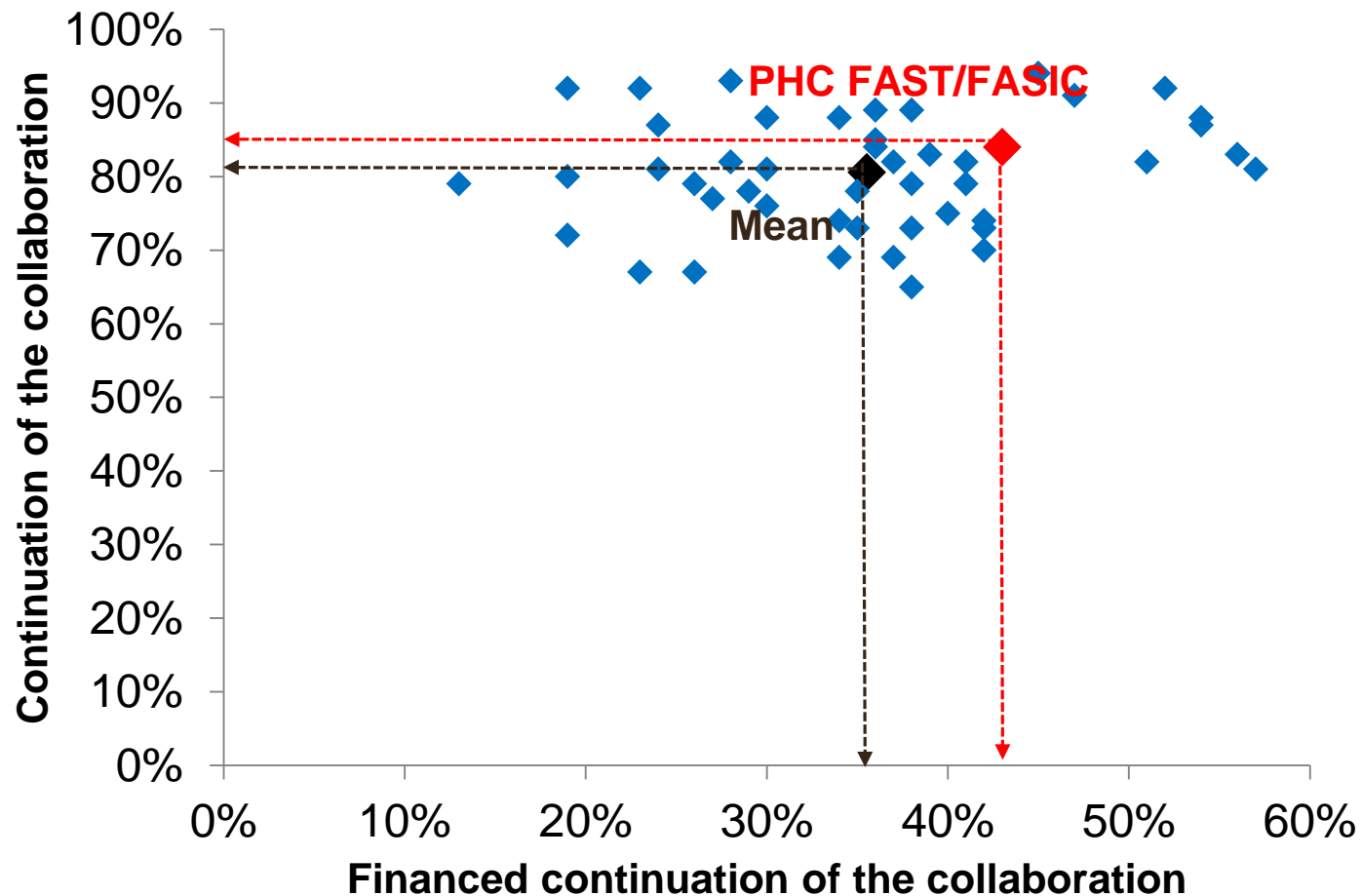


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WHAT HAPPENS AFTER A FAST/FASIC PROJECT ?

CONTINUATION OF THE COLLABORATION (1/4) (Comparison between 47 different bilateral programs)



Continuation of the collaboration : 84% vs 81% mean
Continuation of the collaboration with other sources of subvention : 43% vs 36% mean

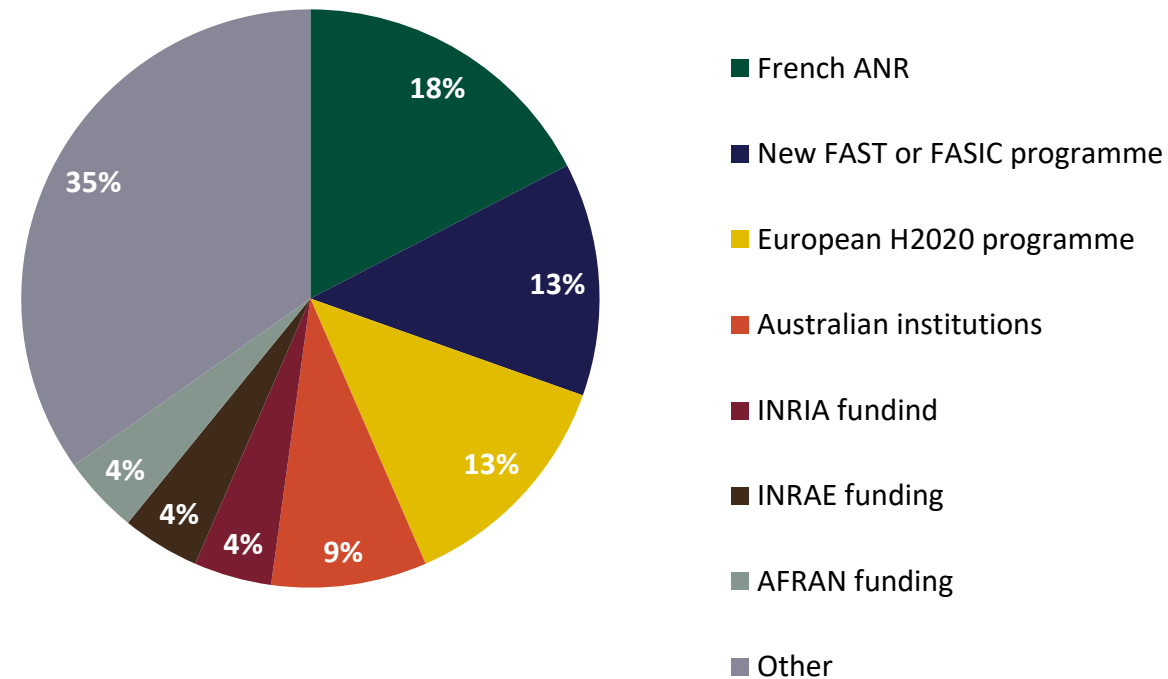
Continuation of the collaboration (2/4)

84% of the collaborations continued after the FAST/FASIC project

Which activities?	
Collaborative research	70%
Scientific co-productions	61%
Researchers mobility	41%
Joint participation to conferences	28%
PhD mobility	26%
Co-organisation of scientific events	13%
Joint diplomas (Master, PhD...)	2%

Continuation of the collaboration (3/4)

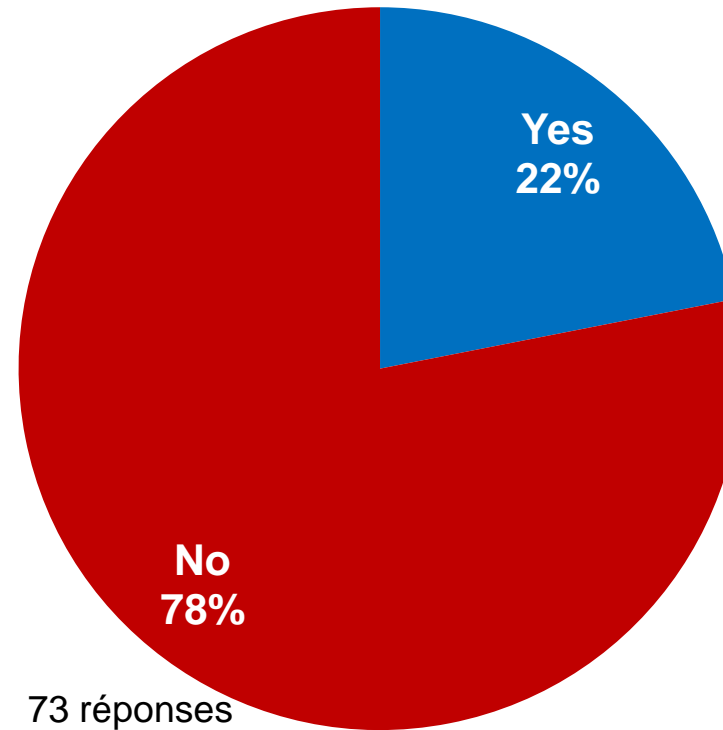
What kind of funded collaborations after the FAST/FASIC project ?



Data from 23 responses

Continuation of the collaboration (4/4)

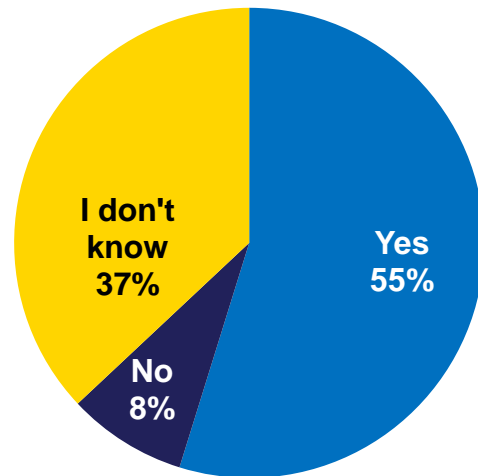
Has the French-Australian collaboration involved new partners?



For a total of 21 new partners from 11 different countries

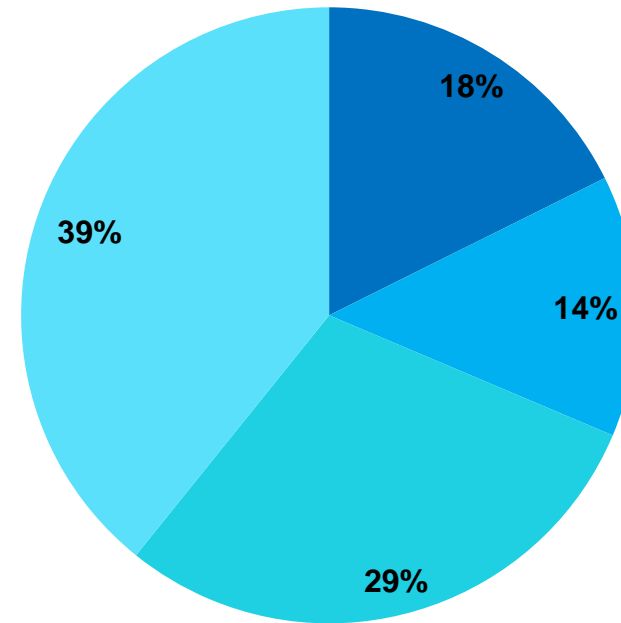
Impact on young researchers' career (1/2)

Was young researchers' career impacted by the FAST/FASIC program ?



Data from 73 responses

Type of impacts

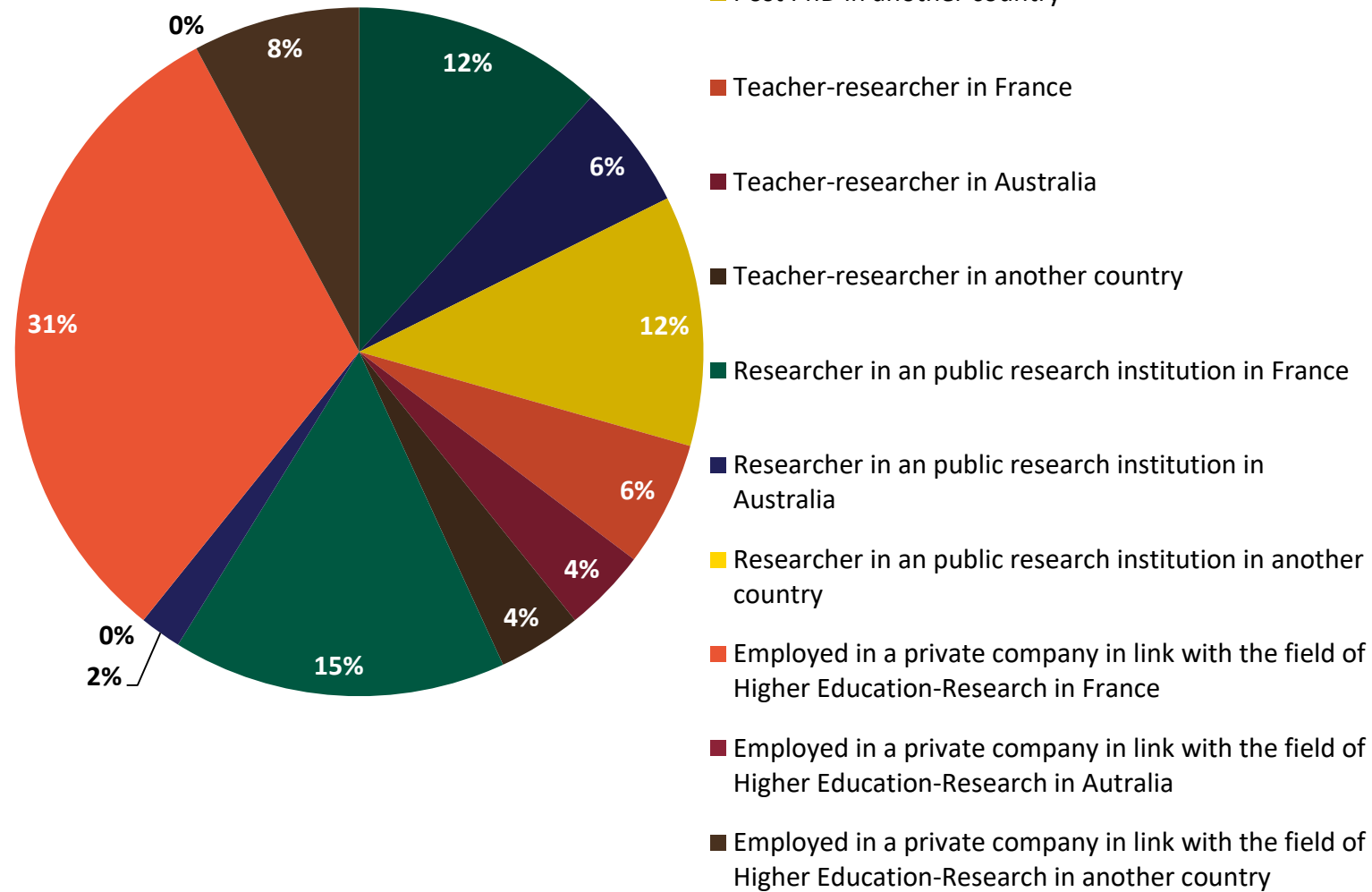


- Researcher in a public research institution (permanent position)
- Teacher/Researcher (permanent position)
- Postdoc/Teacher/Researcher (temporary position)
- Employed in a private company in link with the field of Higher Education - Research

Data from 40 positive responses for a total of 51 young researchers

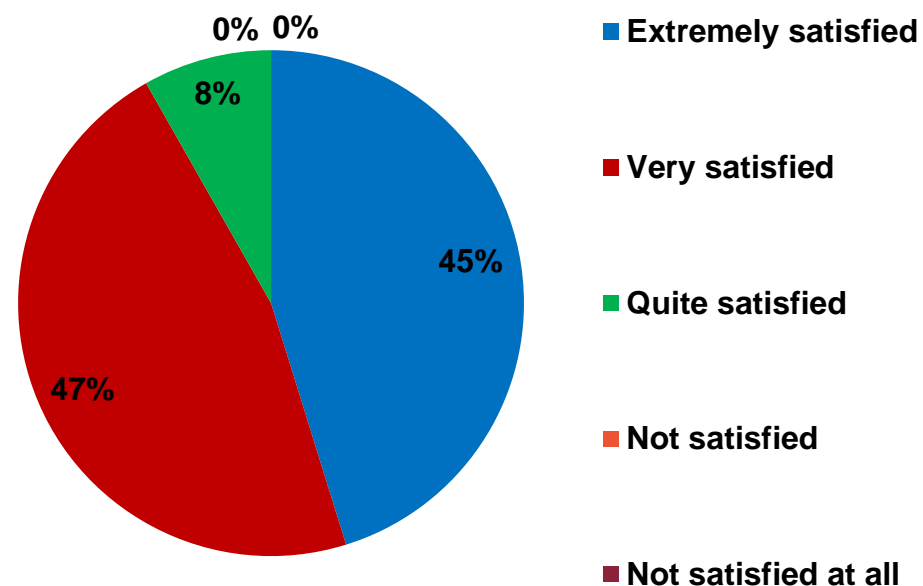
Impact on young researchers' career (2/2)

Detailed types of impacts



General opinion of French PIs on the program

100% of French principal investigators are satisfied



Data from 73 responses

General opinion of French PIs on the program (2/3) positive comments

SURVEY OF 73 FUNDED PROJECTS



Strengths of this program	Number of occurrences (out of 458)	% (out of 73 responses)
Fostering researchers' mobility	63	86%
Fostering an international research collaboration	62	85%
Simplicity of the project application process	58	79%
Fostering exchanges enabling scientific production	48	66%
Fostering the training of the young researchers	38	52%
Easy implementation (administrative flexibility)	36	49%
Financial autonomy towards your institution	26	36%
Sufficient financial means for the mobility costs	24	33%
Helping to know the partner country	22	30%
Helpful to initiate other fundraising	22	30%
Good scientific-added value on financial investment	15	21%
Sufficient amount of mobility time given to collaborate	12	16%
Flexibility of the program for actions co-financed with the partner	10	14%
Sufficiently long duration of the projects	9	12%
Transparency of the selection process	5	7%
Timetable for implementation	4	5%
Other	4	5%
<i>Total number of occurrences</i>	458	

General opinion of French PIs on the program (3/3) negative comments

SURVEY OF 73 FUNDED PROJECTS



Weaknesses of this program	Number of occurrences (out of 165)	% (out of 73 responses)
Insufficient financial means to cover a project	32	44%
Difficult to continue the collaboration	20	27%
Length of support too short	18	25%
Too short duration of mobilities	18	25%
Lack of transparency in the selection process	17	23%
Financial means insufficient for the expenditure of mobility (per diem)	13	18%
Financial means insufficient for the expenditure of mobility (transport)	10	14%
Heaviness of the process of applications	8	11%
Timetable for implementation	8	11%
Insufficient communication on the evaluation's results	6	8%
Too low number of mobilities	5	7%
Administrative heaviness of the missions management	3	4%
Financial autonomy towards your institution	2	3%
Too long duration of mobilities	0	0%
Flexibility of the programme for actions co-financed with the partner	0	0%
Other	5	7%
<i>Total number of occurrences</i>	165	

Preliminary Conclusions

Preliminary conclusions suggest that the funding scheme has efficiently contributed to create (or to maintain) fruitful and long-term cooperation, despite the relatively low financial support, which is to be considered as “seed money”.

Better percentage of young PIs (40%) as compared to the mean of 23%
Participation of women PIs (25%) close to the the mean (24%) but could be encouraged



Implication of young researchers in the projects (70%) close to the mean (67%) but could be improved

Implication of french young researchers in the mobilities (43%) better than the mean (33%) but could be improved

Correct percentage of new fundings after a FAST/FASIC project (36% vs 35% mean)
Beware of the decrease in the number of applications

FAST/FASIC program initiates only 51% of new collaborations

Excellent scientific production (2,04 vs 0,96)

Rather good average annual publication rate of young researchers (0,36)

Very good activity of publication of young researchers effectively involved in the scientific production (1,65 publication/year)



30% of funded projects with no co-publications

Low percentage of French young researchers involved in the scientific production (37% vs general mean 56%)

RECOMMENDATIONS

- **Better communication of the Call for offer**
- **Promote more new cooperations**
- **Increase the participation of young researchers in the projects**
- **Encourage PIs to increase the implication of young researchers in the publications**
- **Encourage women researchers to apply**
- **Consider a “FASIC +” program to help PIs at the end of their financing to develop new applications (Europe, International programs) ?**

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

CONTACTS

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Thank you for your attention