

**FRANCE – BERKELEY**

**Scientific impact of the program  
(2008-2018)**

**MESR-DAEI / MEAE**

**2021**

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

# GENERAL PRESENTATION OF THE PROGRAM

**Creation : 1993**

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

**Total budget (France + Berkeley) : around 240 000 € / year**

>> including budget from the French part : around 117 000 € / year

>> including budget from the US part : around 123 000 € / year

Average budget per project (France + Berkeley) : around 12 500 € / year

**Number of new funded projects per year : around 19**

**From 2008-2018 :**

**859** applications submitted

**243** projects funded

# DATA SOURCES

## Data base (2008-2018)

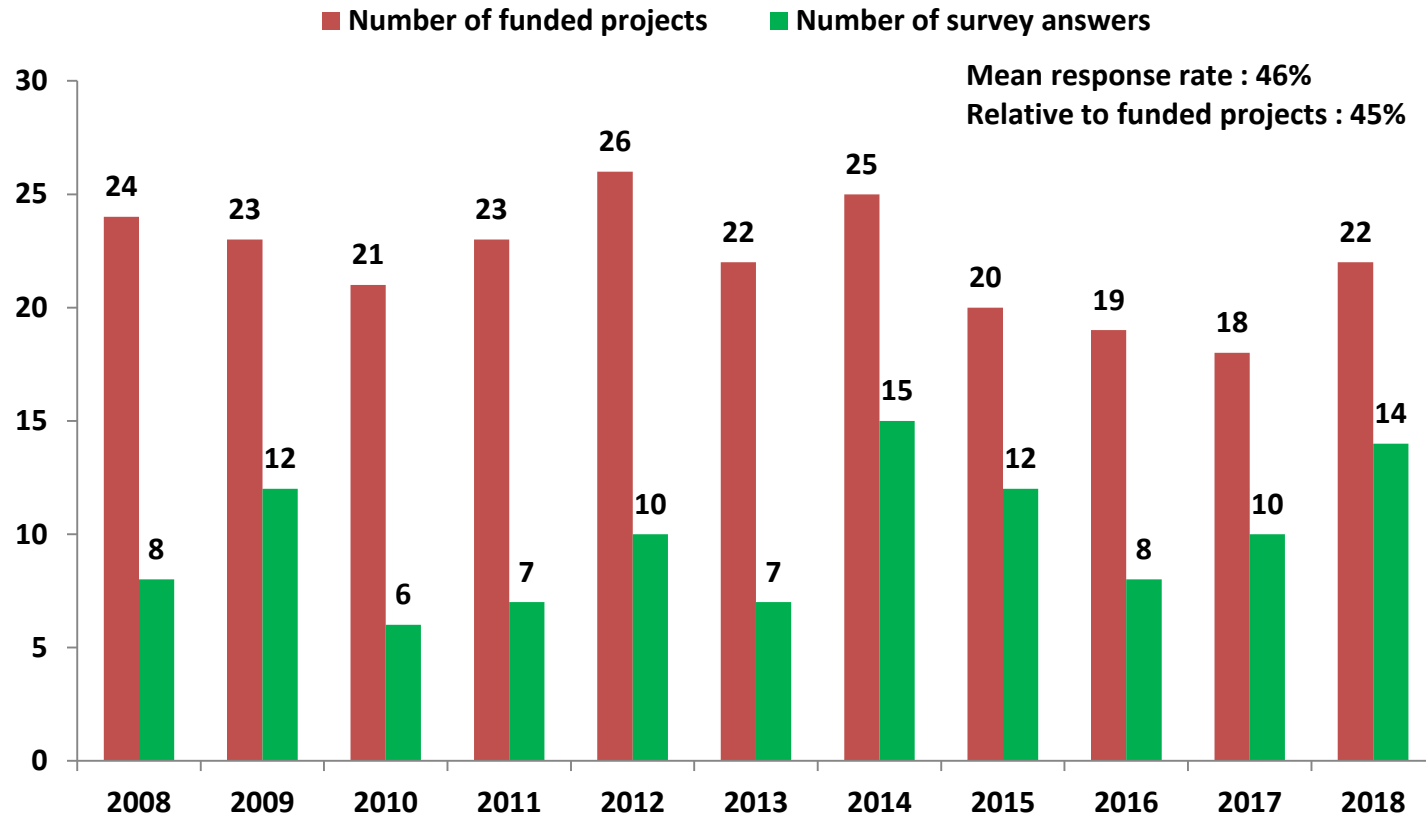
- France-Berkeley applications
- Scientific mobilities

## Survey (2008-2018)

- Target : **French** Principal Investigators of selected projects between 2008 and 2018
- Survey duration : from February 11 to May 16, 2020
- **46%** response rate (109 respondents for 235 queries)

# SURVEY RESPONSES

Average response rate to the survey : **46 % (109 answers)**



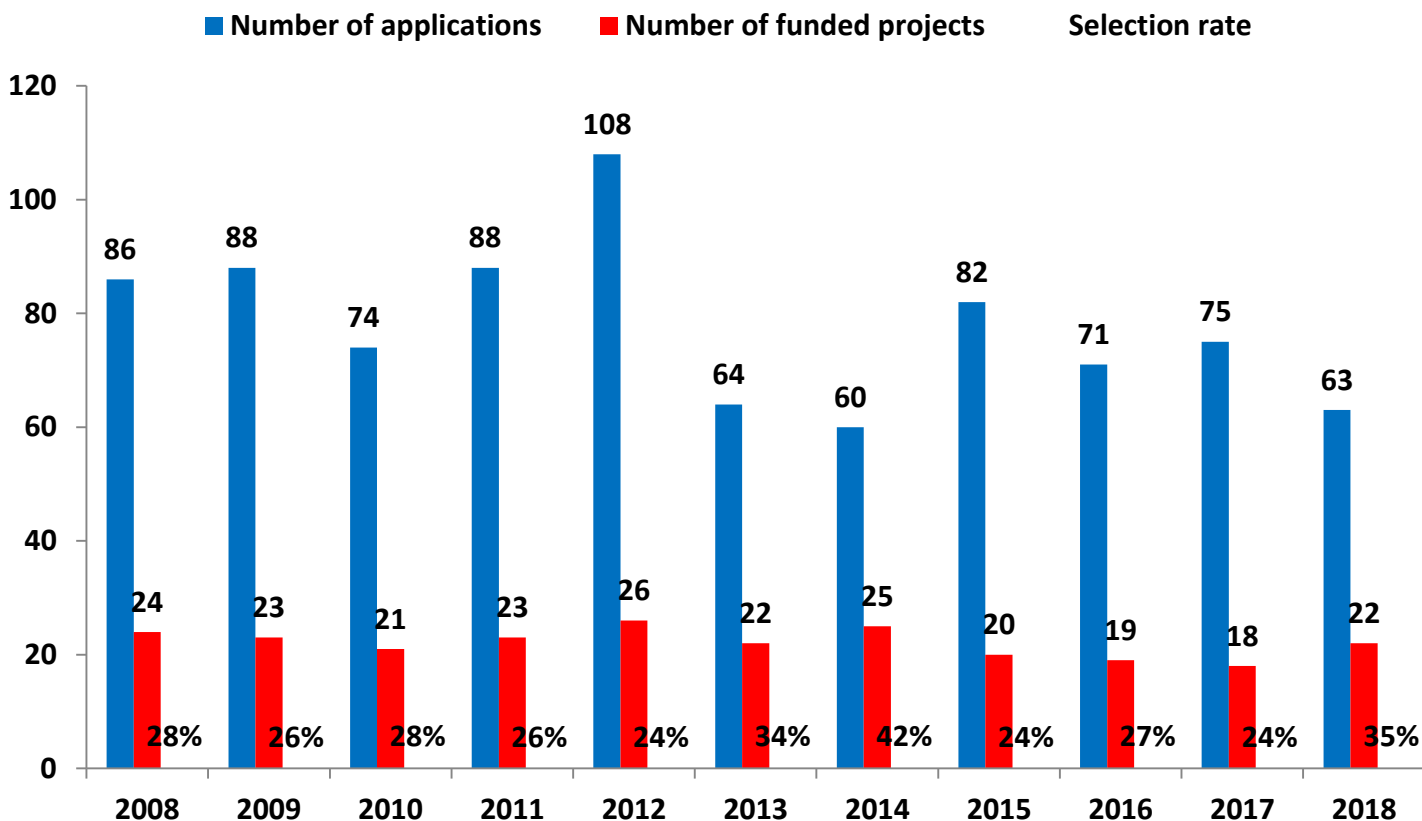
243 funded projects between 2008 and 2018, 235 valid email addresses

# 2008-2018

## Key Points

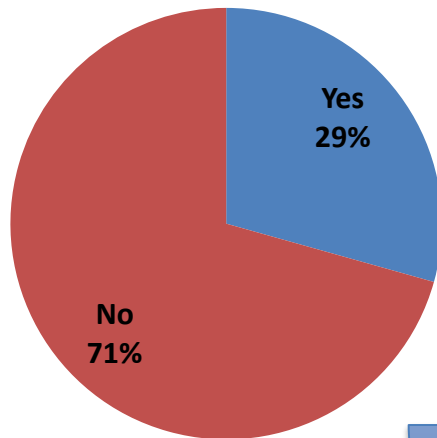
# NUMBER OF APPLICATIONS AND SELECTION RATE

Average selection rate from 2008-2018: **29%**



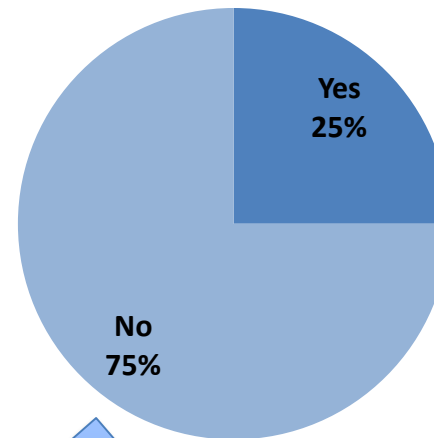
# BEFORE JOINING THE FRANCE BERKELEY PROJECT (1/2)

**Did you already cooperate  
with USA in the past ?**



Data from 109 responses

**If yes, was it  
with the same  
partner?**



Data from 48 responses

# BEFORE JOINING THE FRANCE BERKELEY PROJECT (2/2)

## With which of scientific collaboration program ?

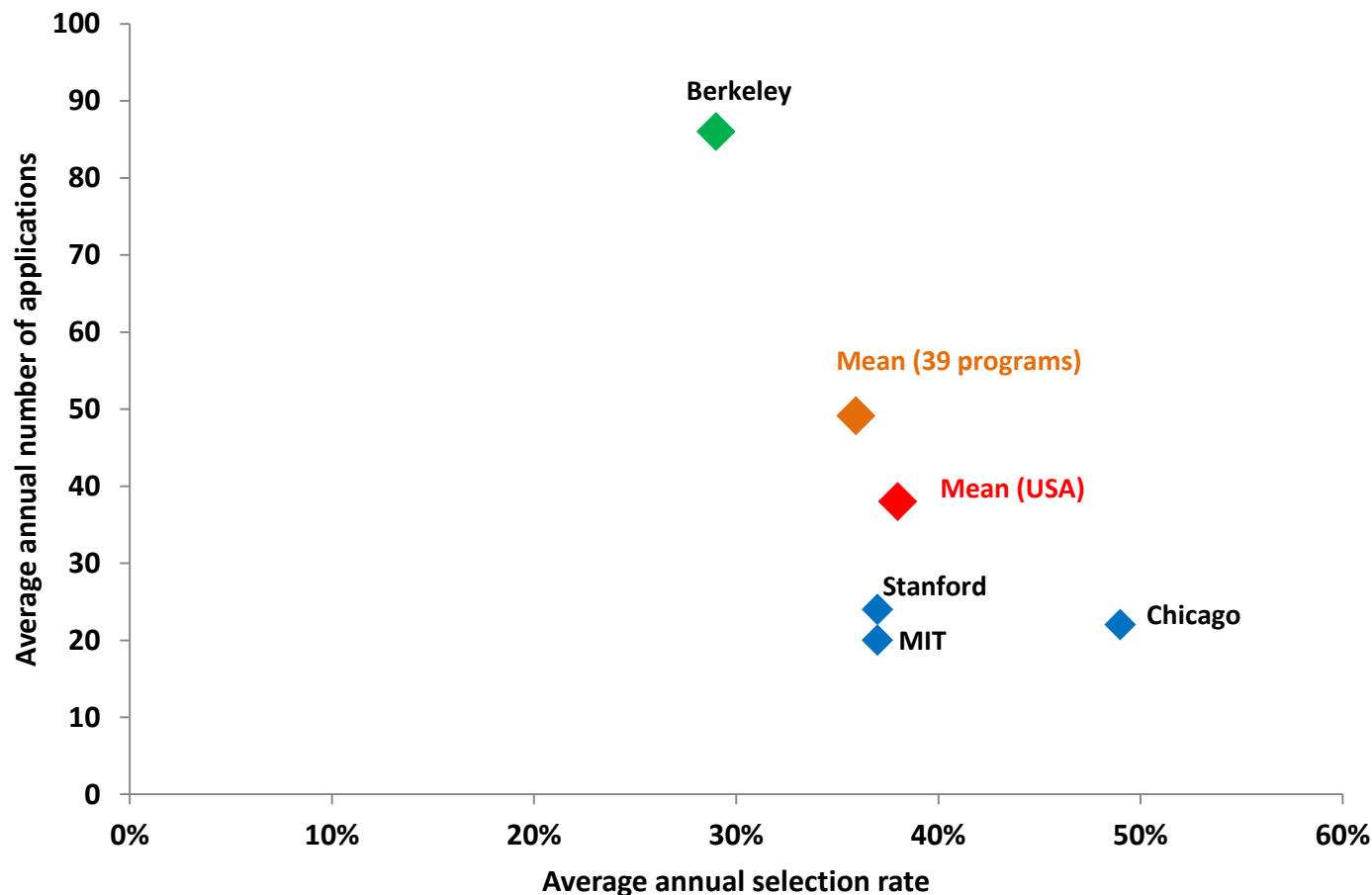
Fulbright	11%
Chateaubriand	11%
Previous FBF	11%
NSF	9%
France - MIT Funds	6%
France - Chicago Funds	6%
France - Stanford Funds	6%
Thomas Jefferson Fund	0%
Others	40%

Others : Marie Curie program, INRIA associate team, Postdoctoral fellow...

Data from 35 responses

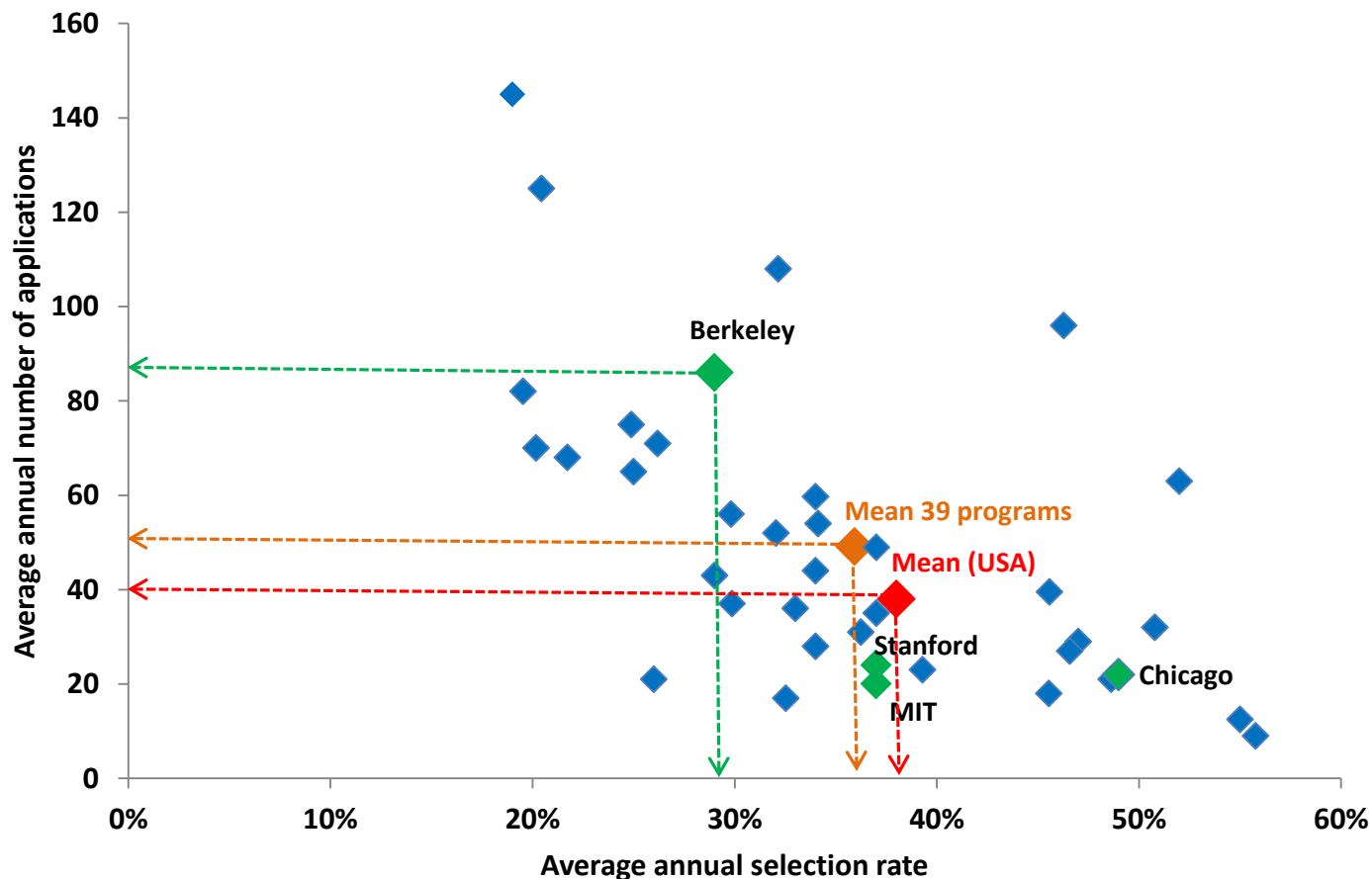


# NUMBER OF APPLICATIONS VS SELECTION RATE (COMPARISON BETWEEN 39 DIFFERENT BILATERAL PROGRAMS)



**Average selection rate for 2008-2018 : 29% vs 38% mean USA and 36% general mean**  
**Average number of applications 2008-2018 : 86 vs 38 mean USA and 49 general mean**

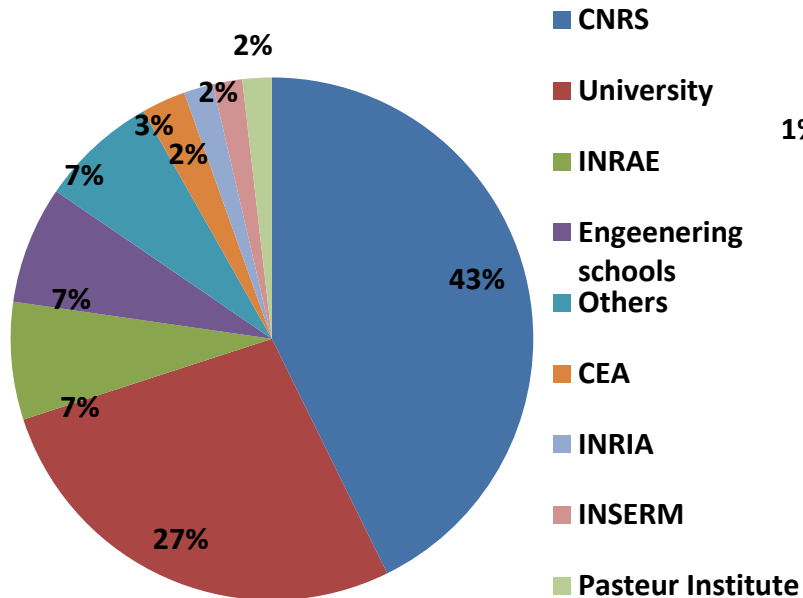
# NUMBER OF APPLICATIONS VS SELECTION RATE (COMPARISON BETWEEN 39 DIFFERENT BILATERAL PROGRAMS)



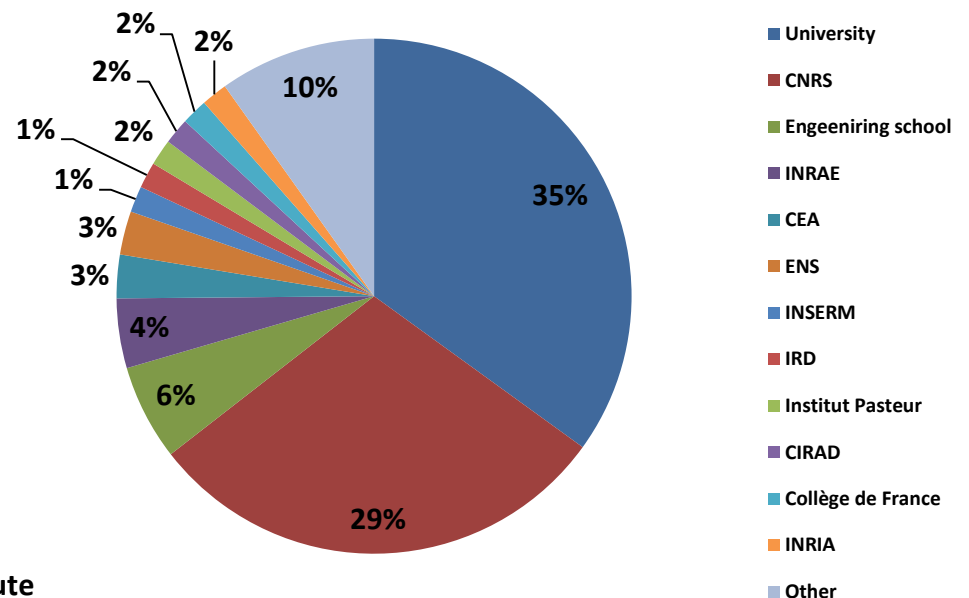
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# FRENCH PARTICIPATING INSTITUTIONS

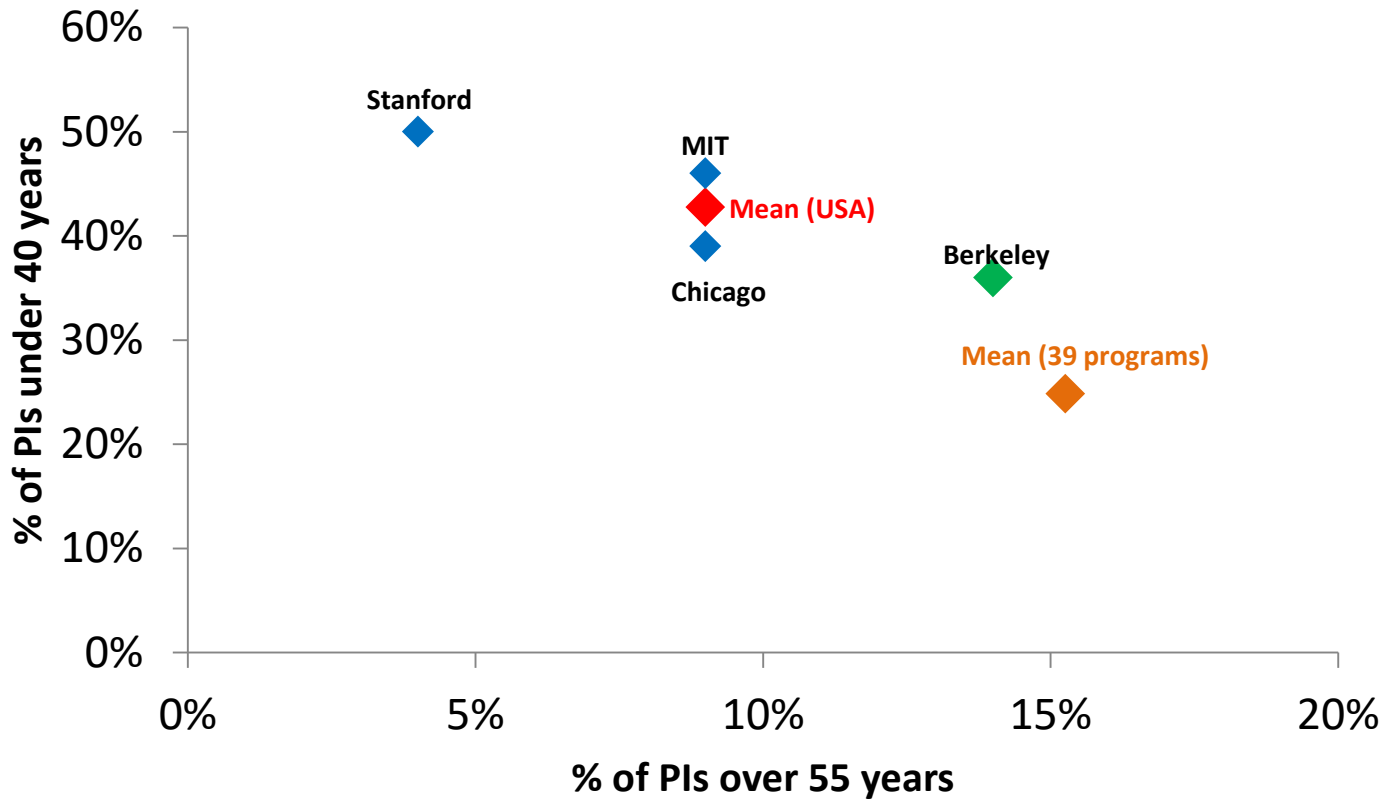
## PI's employers



## Laboratory authorities

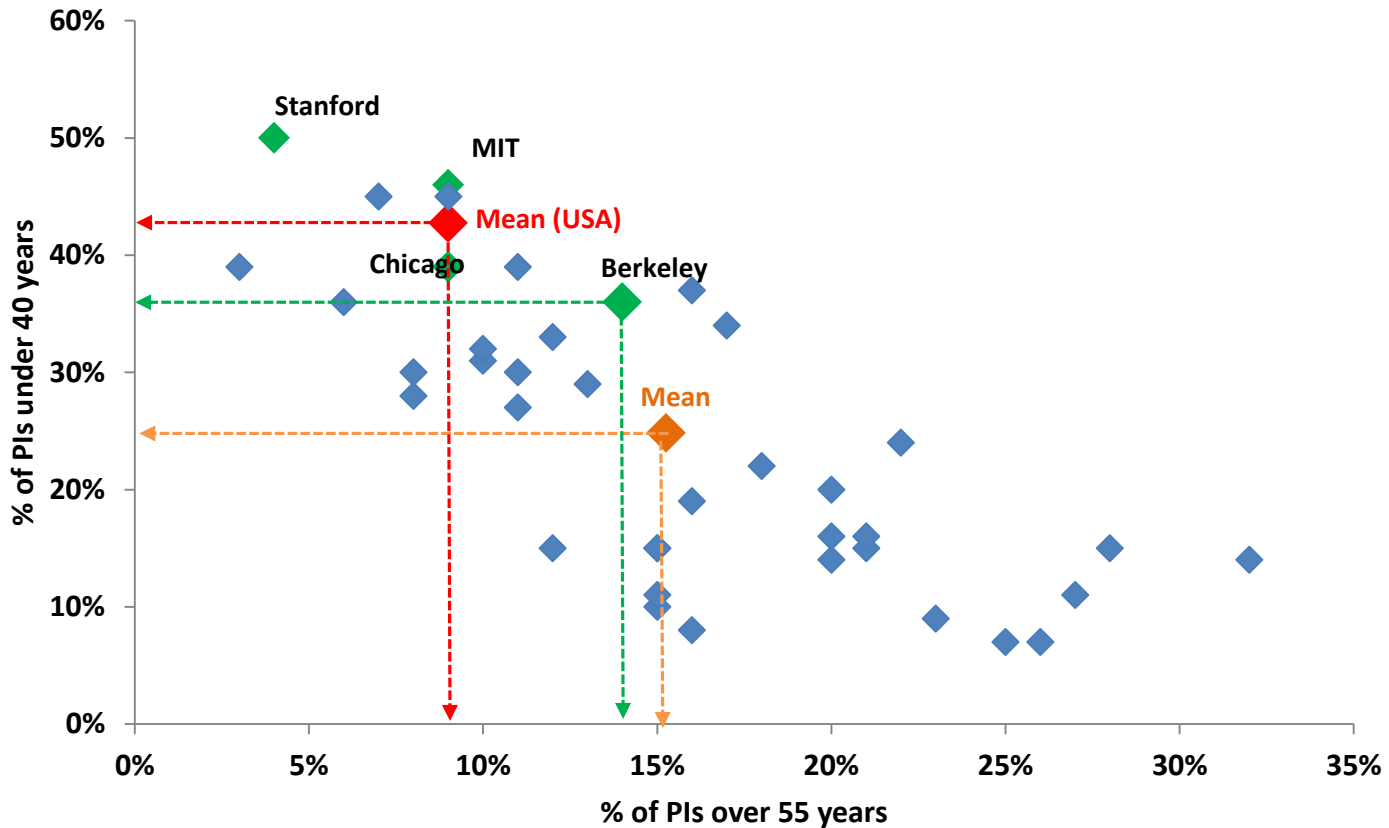


# AGE OF PRINCIPAL INVESTIGATORS (PI) (COMPARISON BETWEEN 39 DIFFERENT BILATERAL PROGRAMS)



**PIs under 40 years old : 36% vs 43% mean USA and 25% general mean**  
**PIs over 55 years old: 14% vs 9% mean USA and 15% general mean**  
**50% of the PIs are between 40 and 55 years old**

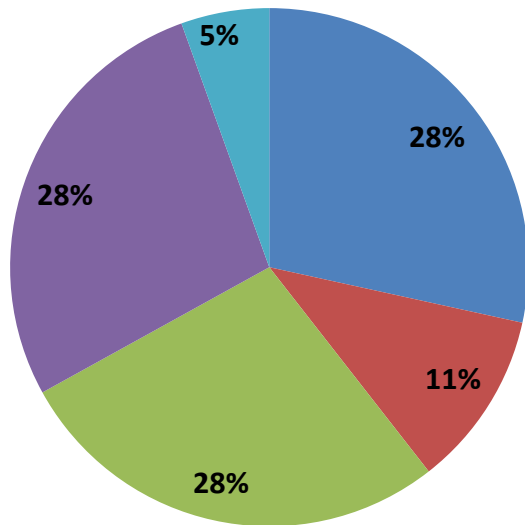
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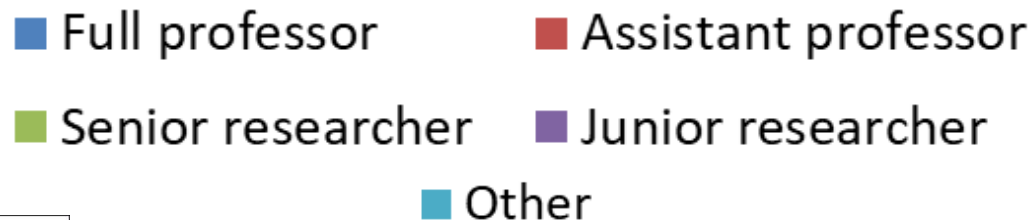
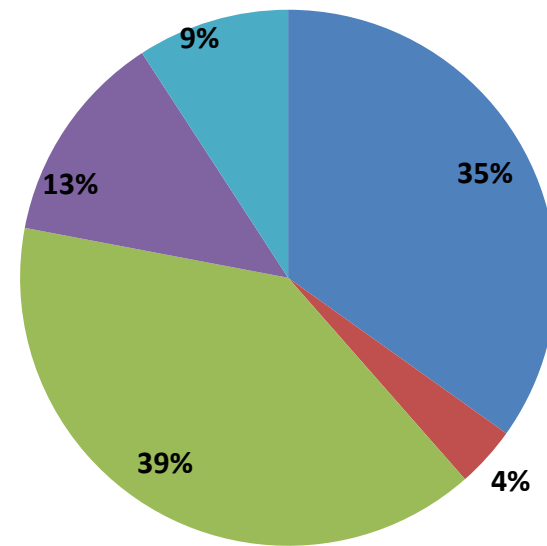
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# PROFESSIONAL FUNCTION OF FRENCH PRINCIPAL INVESTIGATORS

Previous professional status  
(at the beginning of the project)

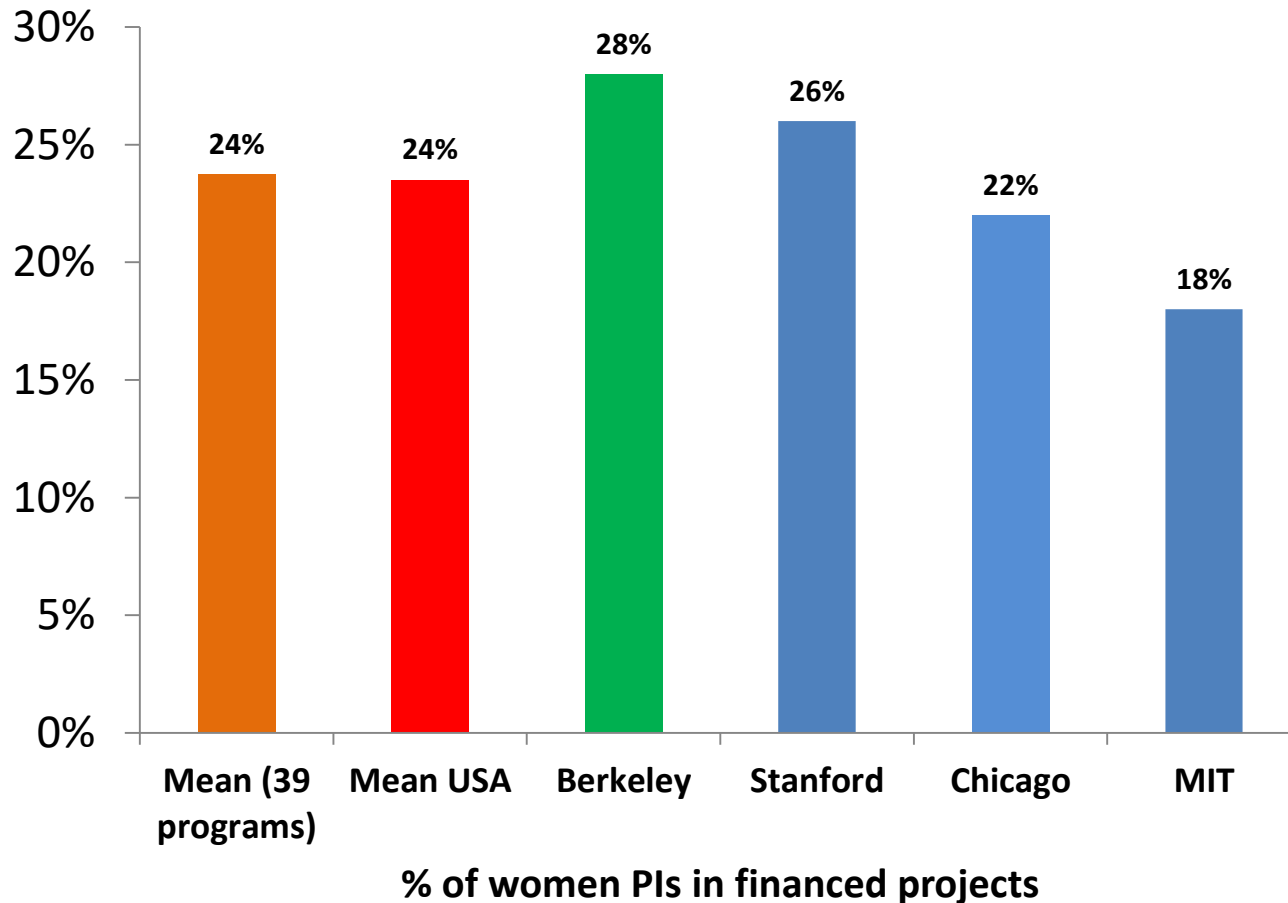


Current professional status



# IMPLICATION OF WOMEN (FRANCE)

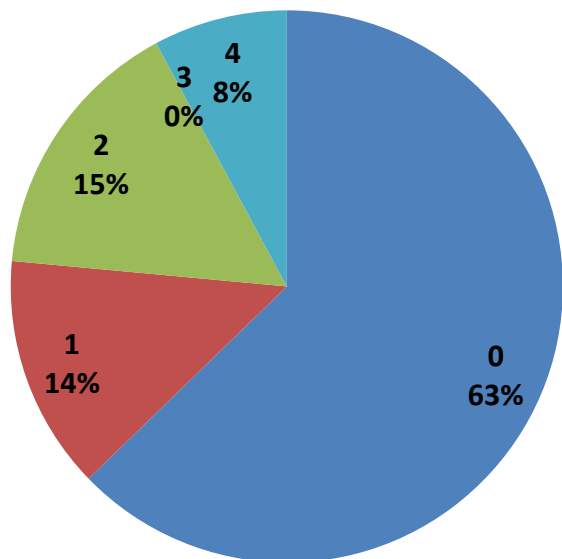
## (COMPARISON BETWEEN 39 DIFFERENT BILATERAL PROGRAMS)



**% of women PIs in the applications : NOT AVAILABLE**  
**% of women PIs in the selected projects : 28% vs 24% mean USA and general mean**

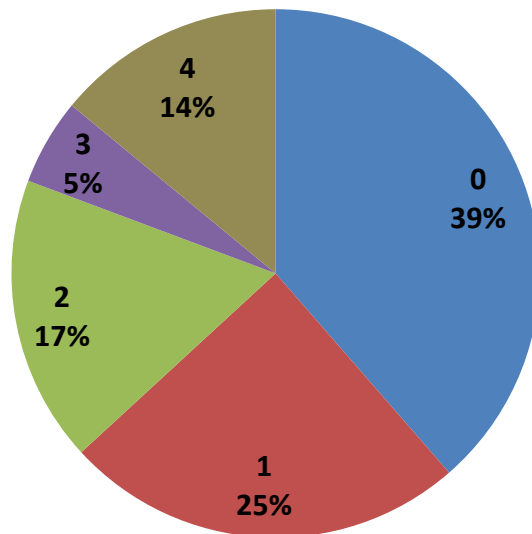
# PARTICIPATION OF FRENCH YOUNG RESEARCHERS

## Number of Masters



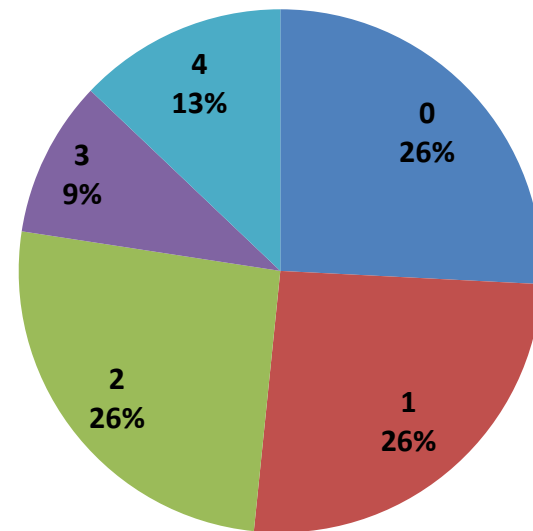
**29%** of projects involve at least one Master student

## Number of PhDs



**45%** of projects involve at least one PhD student

## Number of post-doctoral researchers

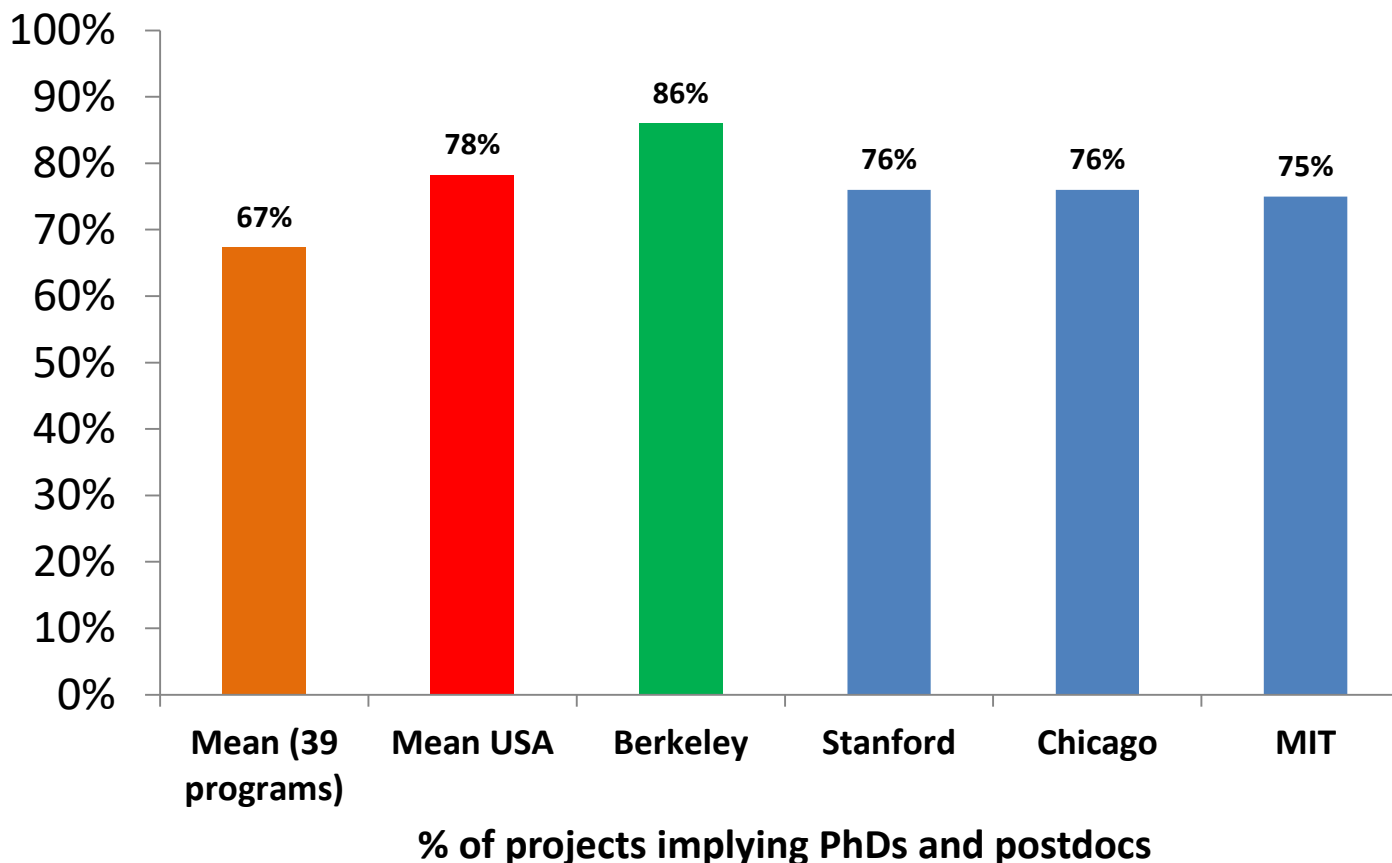


**64%** of projects involve at least one post-doctoral researcher

Data from 109 responses



# IMPLICATION OF YOUNG RESEARCHERS (COMPARISON BETWEEN 39 DIFFERENT BILATERAL PROGRAMS)



**% of projects implying young researchers : 86% vs 78% mean USA and 67% general mean**  
**% of PhD or postdoc implicated in the copublications : NOT AVAILABLE**

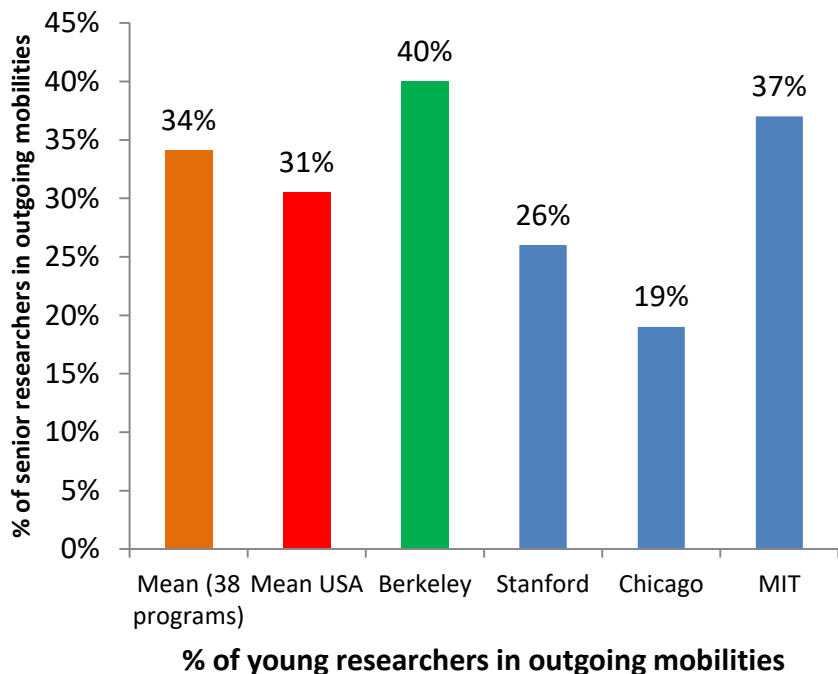


# MOBILITY

# YOUNG RESEARCHERS MOBILITY 2017-2019

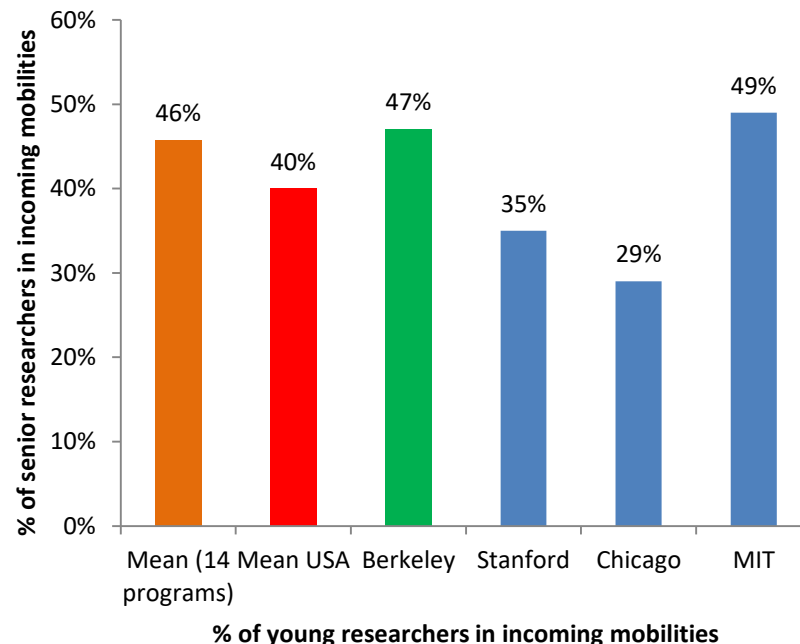
## France → USA

### Comparison between 38 bilateral programs



## USA → France

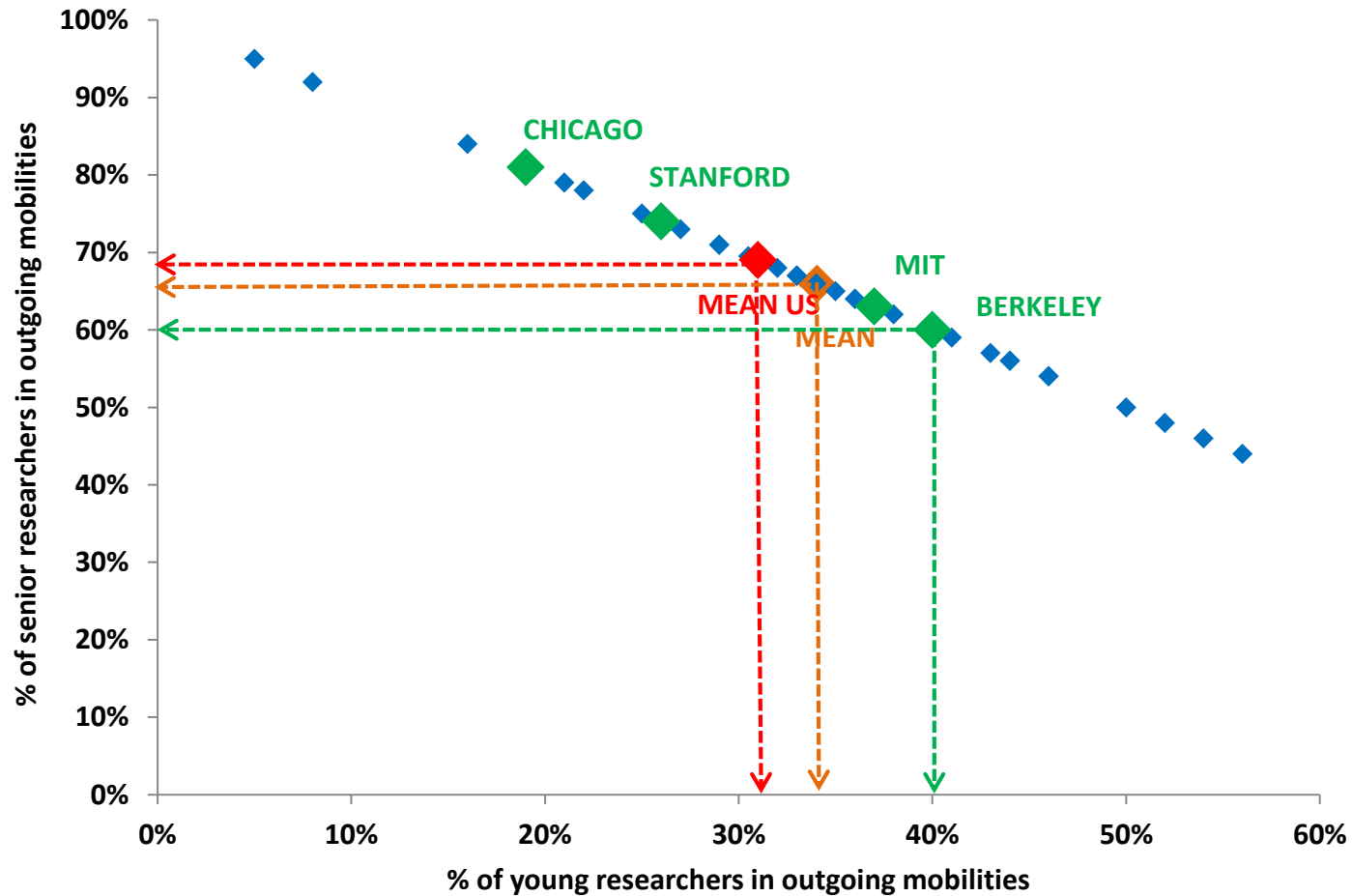
### Comparison between 14 bilateral programs



**% of french young researchers in outgoing mobilities : 40% vs 31% mean USA and 34% general mean**  
**% of american young researchers in incoming mobilities : 47% vs 40% mean USA and 46% general mean**

# FRENCH YOUNG RESEARCHERS MOBILITY 2017-2019

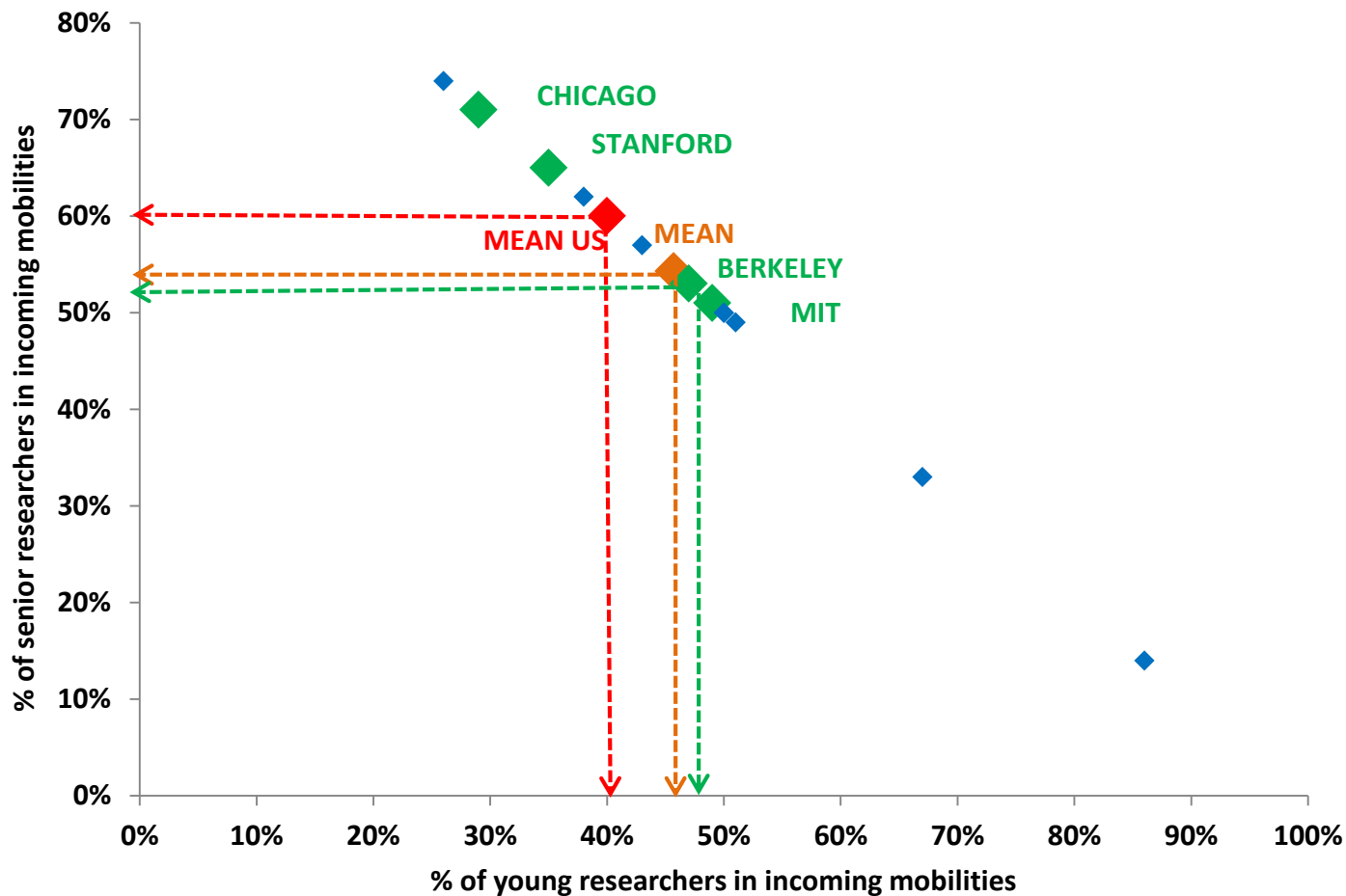
France → USA  
Comparison between 38 bilateral programs



**% of french young researchers in outgoing mobilities : 40% vs 31% mean USA and 34% general mean**

# AMERICAN YOUNG RESEARCHERS MOBILITY 2017-2019

USA → France  
Comparison between 14 bilateral programs



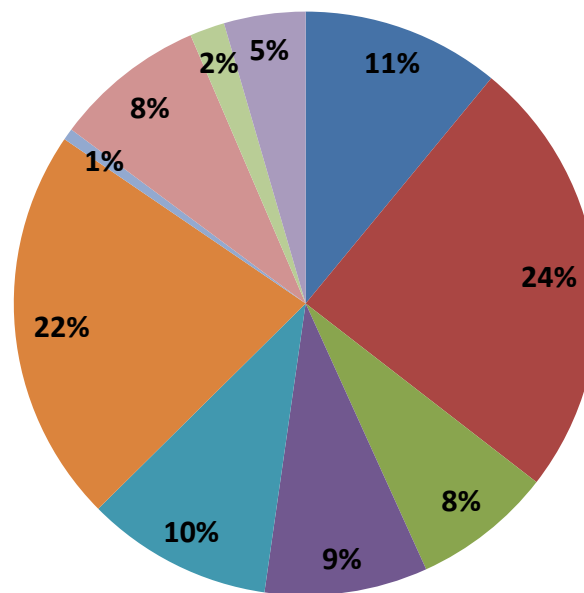
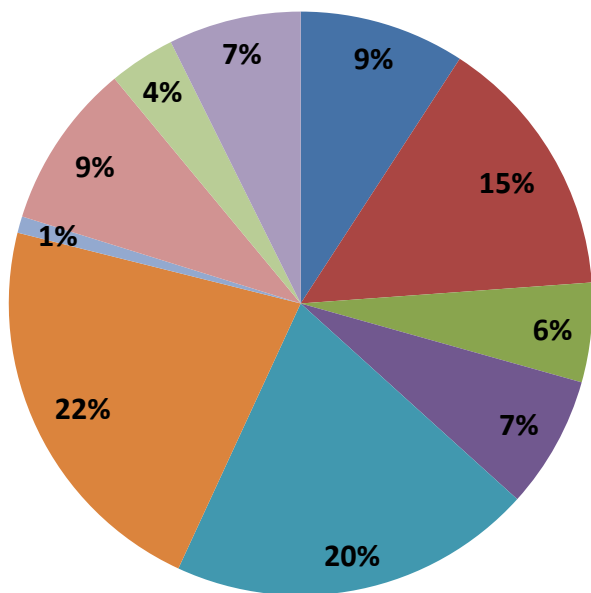
**% of american young researchers in incoming mobilities : 47% vs 40% mean USA and 46% general mean**

# SCIENTIFIC PRODUCTION (2008-2017)

# SCIENTIFIC OUTPUT (1/2)

Number of funded projects : **109**

Percentage of co-publications



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

# SCIENTIFIC OUTPUT (2/2)

## Data from 94 funded projects

	Number of financed projects in the survey	Average number of co-publications per project
Mathematics	10	1,7
Physics	15	2,5
Marine/Earth/Planet Sciences	6	2,0
Chemistry	6	2,3
Biology and Health	18	0,9
Humanities	19	1,8
Social Sciences	1	1,0
Engineering Sciences	10	1,3
Information Technology	4	0,8
Agronomy / Ecology	5	1,4
<b>TOTAL</b>	<b>94</b>	<b>1,6</b>

Overall average **annual** number of co-publication per project : **1,6 vs 0,90 general mean**

**68%** of funded projects led to one co-publication at least



# WHAT HAPPENS AFTER JOINING THE FRANCE-BERKELEY PROGRAM?

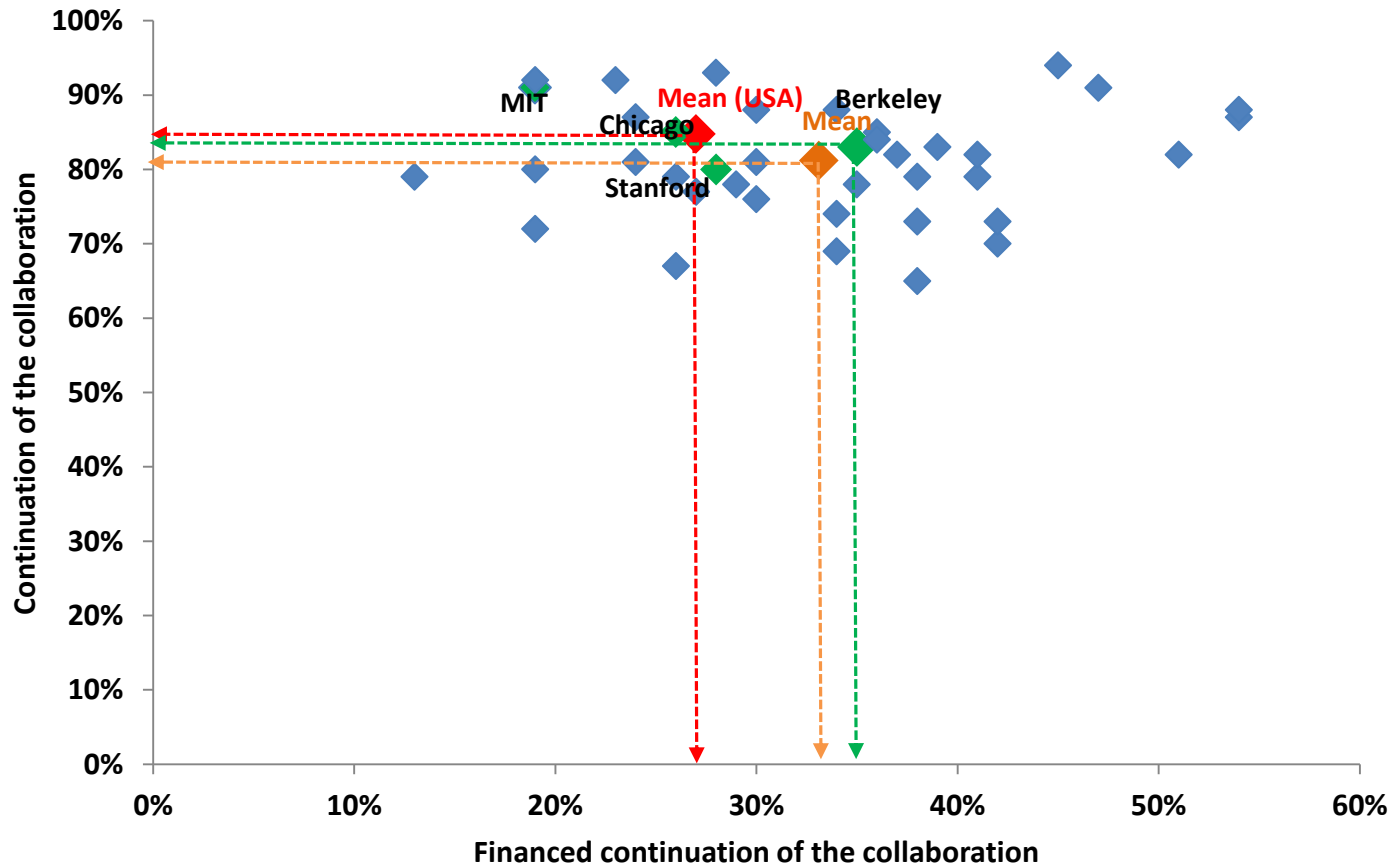
# CONTINUATION OF THE COLLABORATION (1/6)

## (COMPARISON BETWEEN 39 DIFFERENT BILATERAL PROGRAMS)



**Continuation of the collaboration : 83% vs 81% mean USA and 81% general mean**  
**Continuation of the collaboration with other grants: 35% vs 27% mean USA and 33% general mean**

# CONTINUATION OF THE COLLABORATION (2/6) (COMPARISON BETWEEN 39 DIFFERENT BILATERAL PROGRAMS)



**Continuation of the collaboration : 83% vs 81% mean USA and 81% general mean**  
**Continuation of the collaboration with other grants: 35% vs 27% mean USA and 33% general mean**

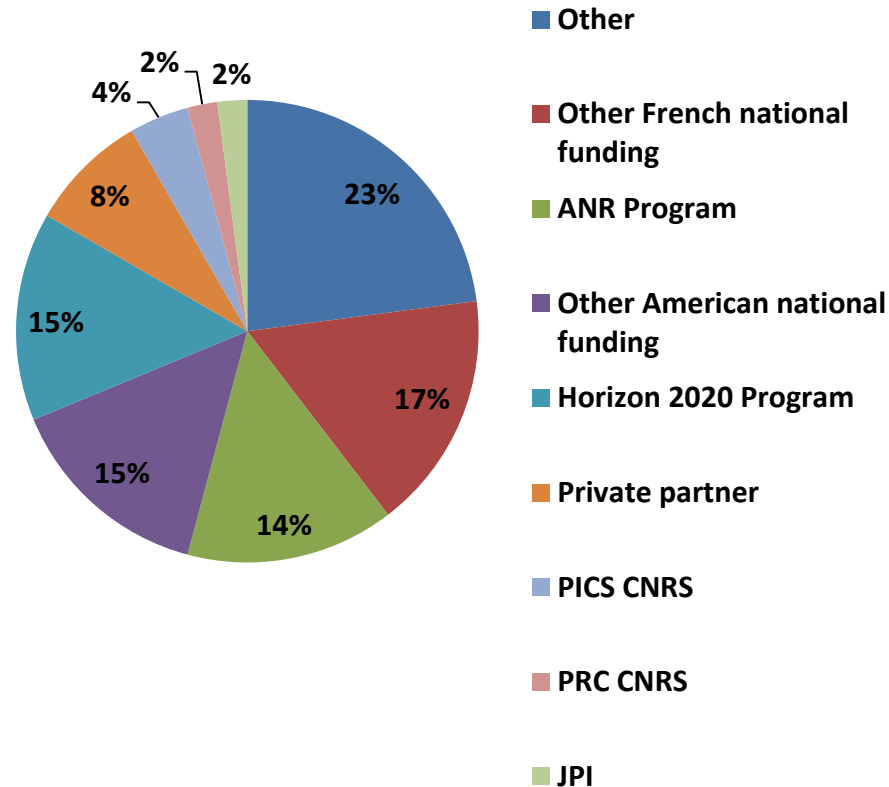
## CONTINUATION OF THE COLLABORATION (3/6)

**83%** of the collaborations continued after the France-Berkeley project

Which activities?	
Collaborative research	76%
Researchers mobility	51%
Co-publications	50%
Joint participation at conferences	32%
PhD mobility	23%
Co-organisation of scientific events	21%
Joint participation at PhD thesis	9%
Mobility of Master's students	4%
Others	1%

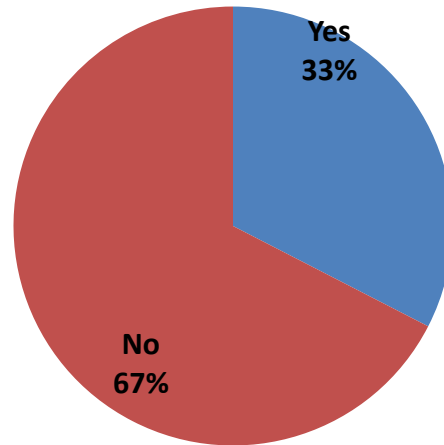
# CONTINUATION OF THE COLLABORATION (4/6)

What kind of funded collaborations after the France-Berkeley project ?



# CONTINUATION OF THE COLLABORATION (6/6)

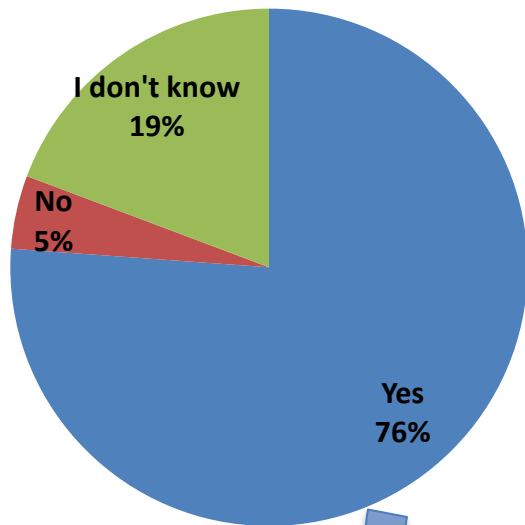
Has the French-US collaboration involved new partners?



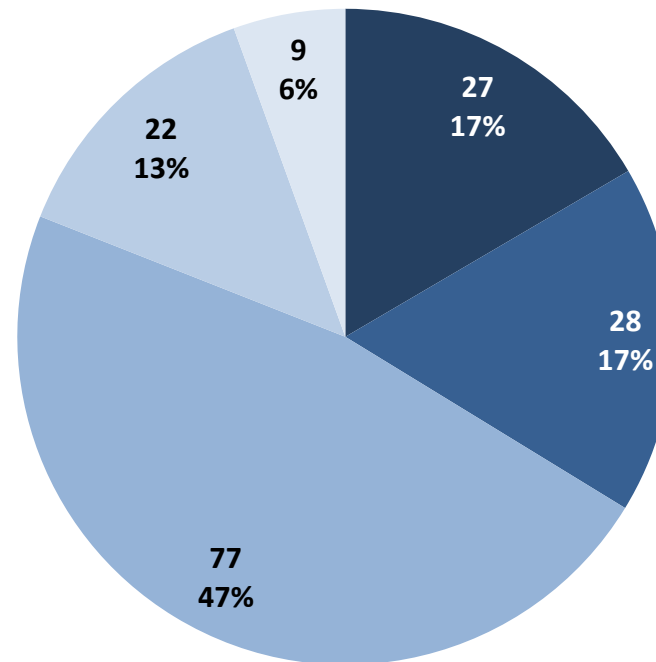
For a total of 39 new partners from 8 different countries

# IMPACT ON YOUNG RESEARCHERS' CAREER (1/2)

Was young researchers' career impacted by the France-Berkeley program ?



Type of impacts



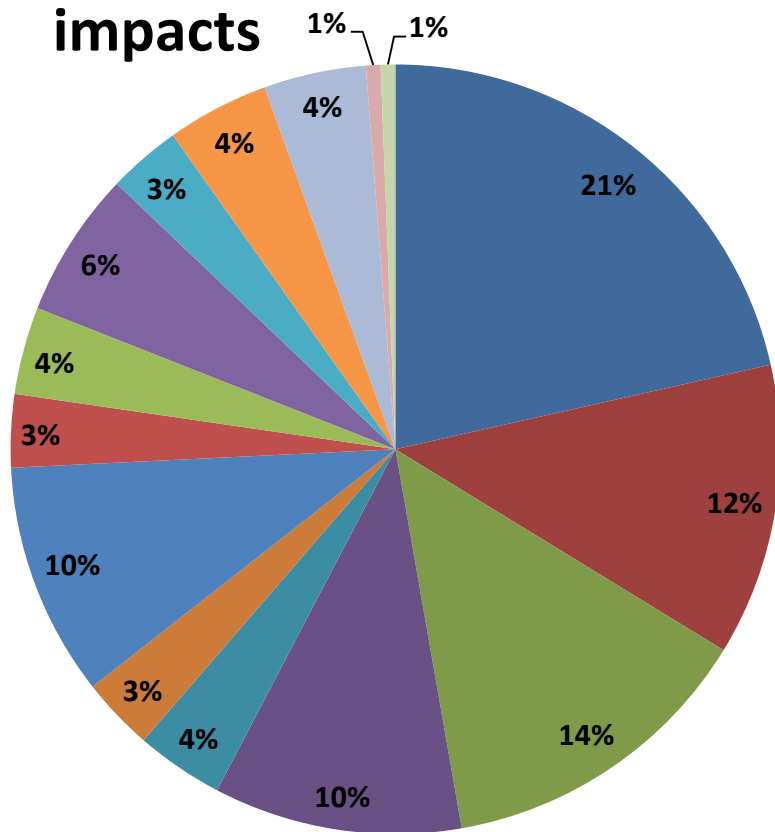
- Researcher in a public research institution (permanent position)
- Teacher/Researcher (permanent position)
- Postdoc/Teacher/Researcher (temporary position)
- Employed in a private company in link with the field of Higher Education - Research
- Other

Data from 109 responses

Data from 83 positive responses for a total of 163 young researchers

# IMPACT ON YOUNG RESEARCHERS' CAREER (2/2)

## Detailed types of impacts

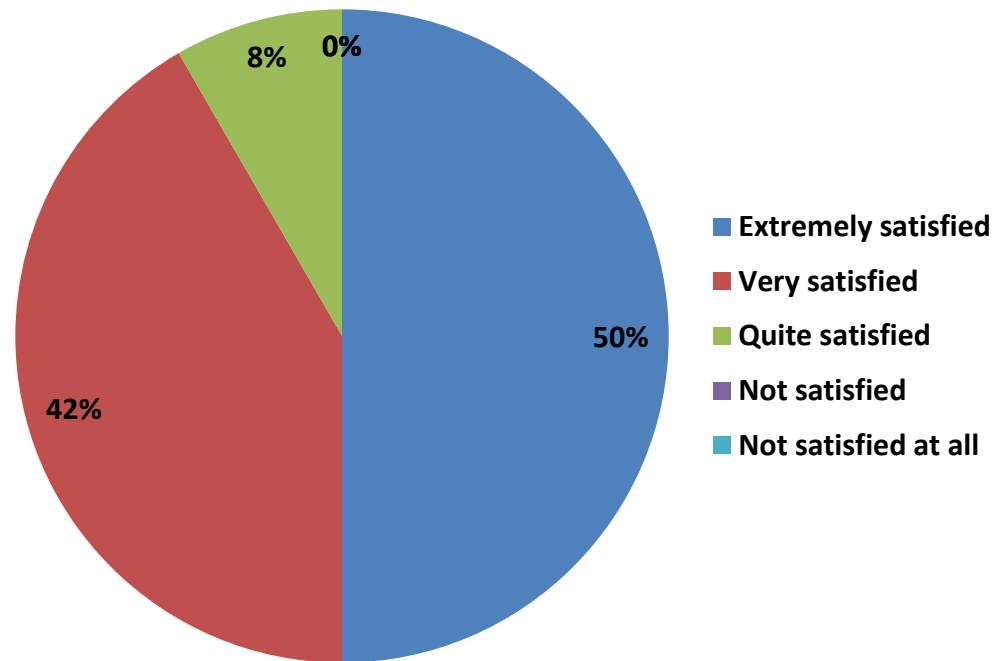


- Post PhD in France
- Post PhD in the United States
- Post PhD in another country
- Teacher-researcher in France
- Teacher-researcher in the United States
- Teacher-researcher in another country
- Researcher in a public research institution in France
- Researcher in a public research institution in the United States
- Researcher in a public research institution in another country
- Employed in a private company in link with the field of Higher Education-Research in France
- Employed in a private company in link with the field of Higher Education-Research in Portugal
- Employed in a private company in link with the field of Higher Education-Research in another country
- Other in France
- Other in the United States
- Other in another country



# GENERAL OPINION OF FRENCH PIS ON THE PROGRAM

**100%** of French principal investigators are satisfied



Data from 108 responses

# GENERAL OPINION OF FRENCH PIS ON THE PROGRAM (2/3) POSITIVE COMMENTS

## SURVEY OF 109 FUNDED PROJECTS



Strengths of this program	Number of occurrences (out of 503)	% (out of 109)
Simplicity of the application process	92	84%
Fostering an international research collaboration	71	65%
Easy implementation (administrative flexibility)	71	65%
Fostering researchers' mobility	65	60%
Fostering the training of the young researchers	59	54%
Fostering exchanges enabling scientific production	39	36%
Helpful to initiate other fundraising	28	26%
Good scientific-added value on financial investment	19	17%
Sufficient financial means for the mobility costs	19	17%
Helping to know the partner country	17	16%
Transparency of the selection process	12	11%
Sufficient amount of mobility time given to collaborate	9	8%
Sufficiently long duration of the projects	1	1%
Other	1	1%
<i>Total number of occurrences</i>	<i>503</i>	

# GENERAL OPINION OF FRENCH PIS ON THE PROGRAM (3/3) NEGATIVE COMMENTS

## SURVEY OF 109 FUNDED PROJECTS



Weaknesses of this program	Number of occurrences (out of 62)	% (out of 109)
Length of support too short	59	54%
Financial means insufficient for the expenditure of mobility (transport)	42	39%
Financial means insufficient for the expenditure of mobility (per diem)	42	39%
Insufficient financial means to cover a project	42	39%
Difficult to continue the collaboration	21	19%
Lack of transparency in the selection process	12	11%
Administrative complexity	4	4%
Too short duration of mobilities	0	0%
Too long duration of mobilities	0	0%
Too low number of mobilities	0	0%
Insufficient communication on the evaluation's results	0	0%
Heaviness of the process of applications	0	0%
Other	14	13%
<i>Total number of occurrences</i>	236	

# 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”.

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France-Berkeley program initiates 71% of new collaborations

High number of applications

Average scientific production better than the mean (1,5 vs 0,9)

Good percentage of continuation of the cooperation (83%)

High positive impact on the career of young researchers involved in the projects

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Low implication of PhDs (45% vs general mean : 67%) in the projects

Almost half of the funded projects producing no co-publications

Capacity of involving new partners during continuation of the cooperation (only 33% of the projects)

# PRELIMINARY RECOMMENDATIONS FOR FRENCH PIS

## ***RECOMMENDATIONS***

- **Increase the scientific co-production**
- **Increase the participation of PhD students in the projects**

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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christophe.delacourt@recherche.gouv.fr

*Thank you for your attention*