

FRANCE – CHINA PHC CAI YUANPEI 5th ANNIVERSARY

Scientific impact of the program (2010-2015)

MESRI-DAEI / MEAE

2018

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

GENERAL PRESENTATION OF THE PROGRAMME

Creation : 2009

The purpose of this programme is to develop excellence scientific and technological exchanges between the French and Chinese laboratories dealing with joint thesis supervision

Total budget (France + China) : around 814 000 € / year

>> including budget from the French part : 407 000 € / year *

>> including budget from the Chinese part : 407 000 € / year

Average budget per project (France + China) : 23 941 € / year

Number of new projects per year : around 19

From 2010-2015:

450 applications submitted

112 projects funded

DATA SOURCES

Campus France

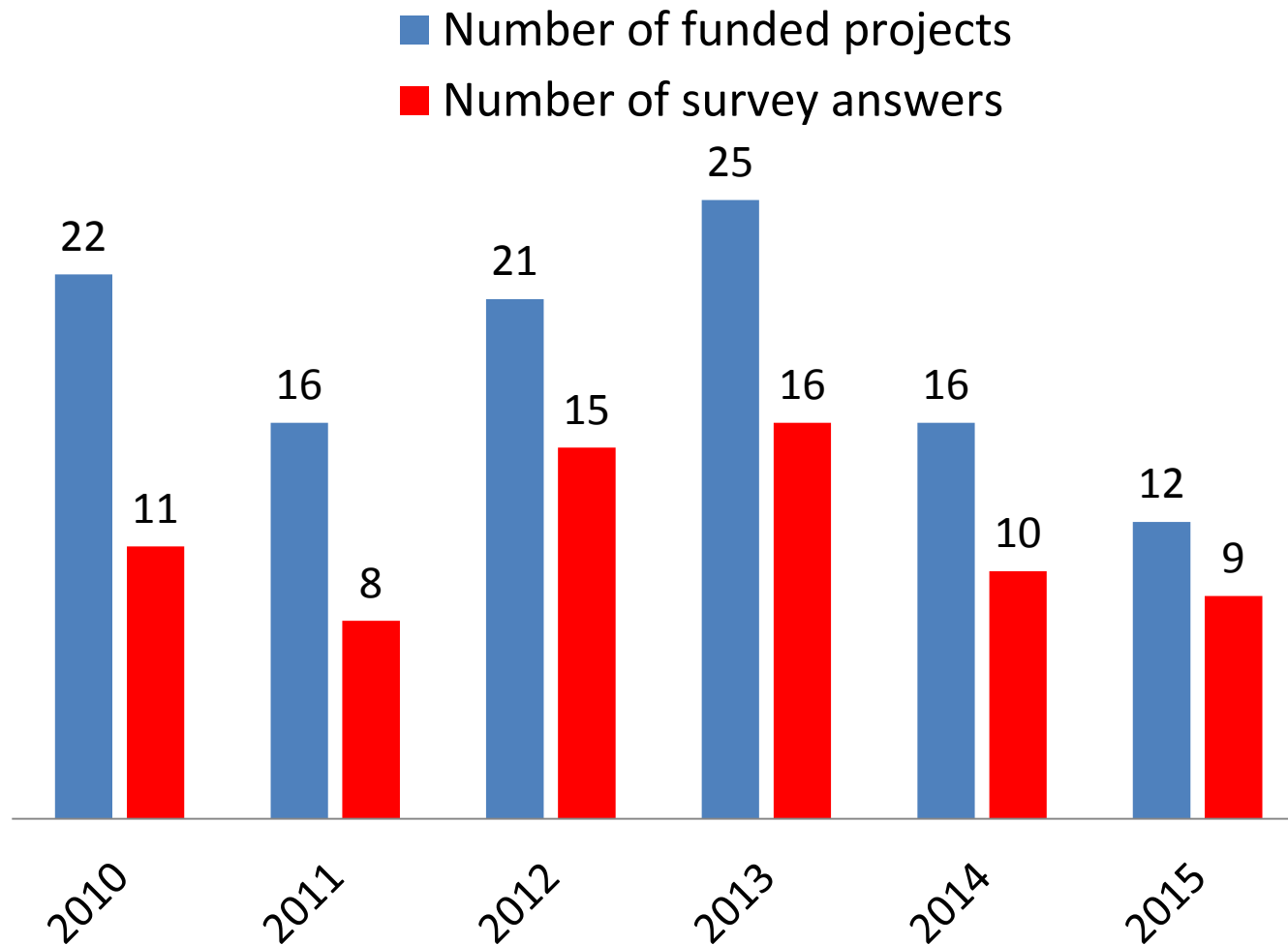
- Information about the PHC Cai Yuanpei program applications
- List of mobilities (from France to China)

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

- Target : Principal Investigators of selected projects between 2010 and 2015
- Survey **duration** : **10 weeks between March and June 2016**
- **66%** response ratio *(69 respondents for 104 funded projects)*

ANSWERS TO THE SURVEY

Average response rate to the survey : **66 % (69 answers)**

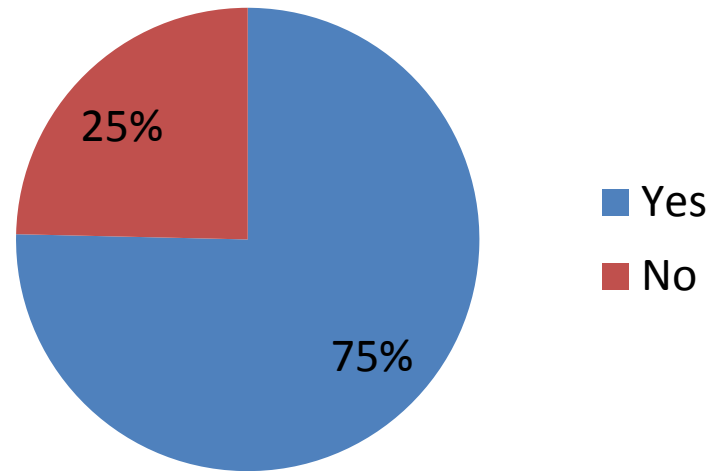


Campus
France &
Survey
data

2010-2015 Key Points

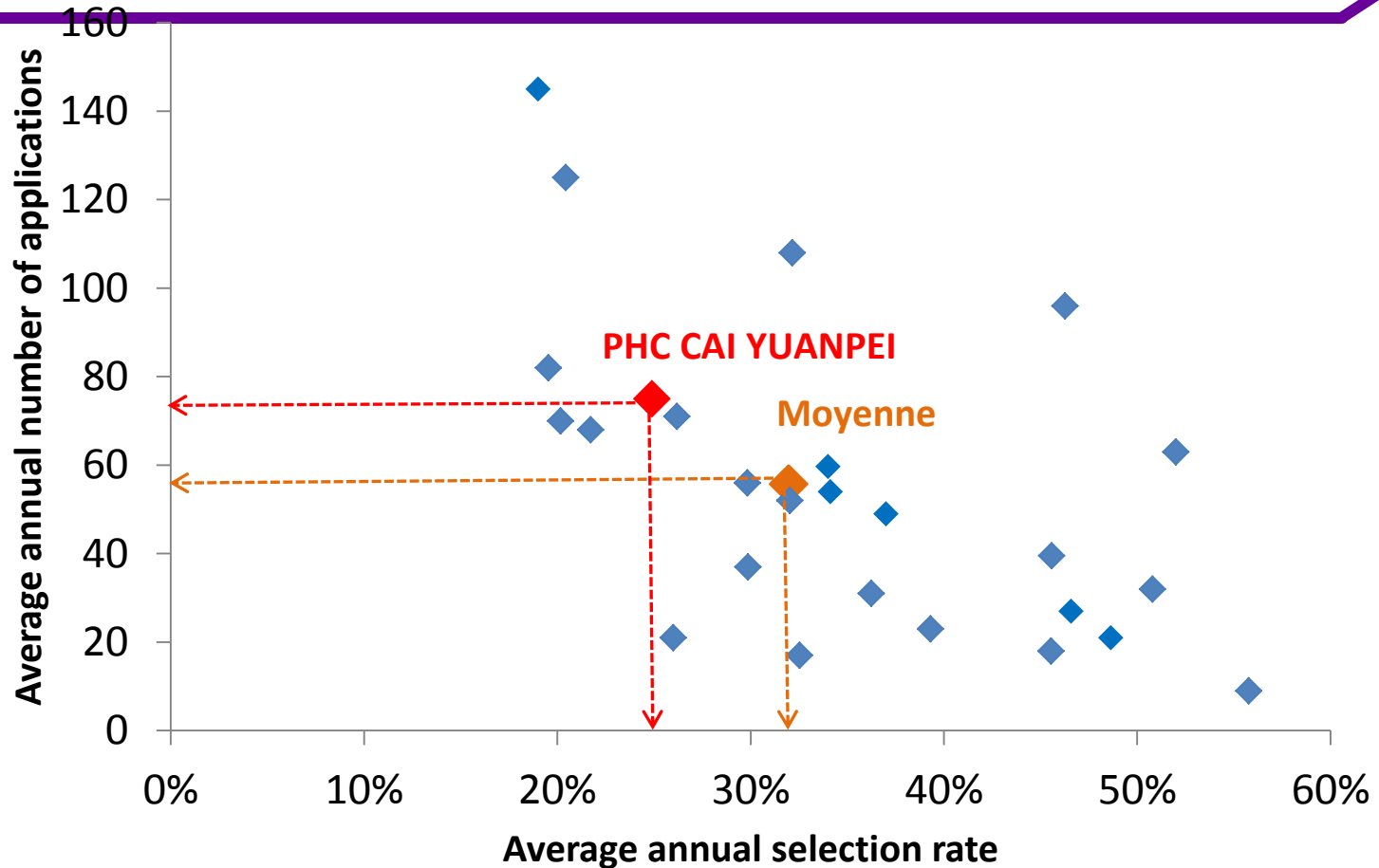
BEFORE THE PHC CAI YUANPEI PROJECT

Have you ever worked with this Chinese partner?



Survey data

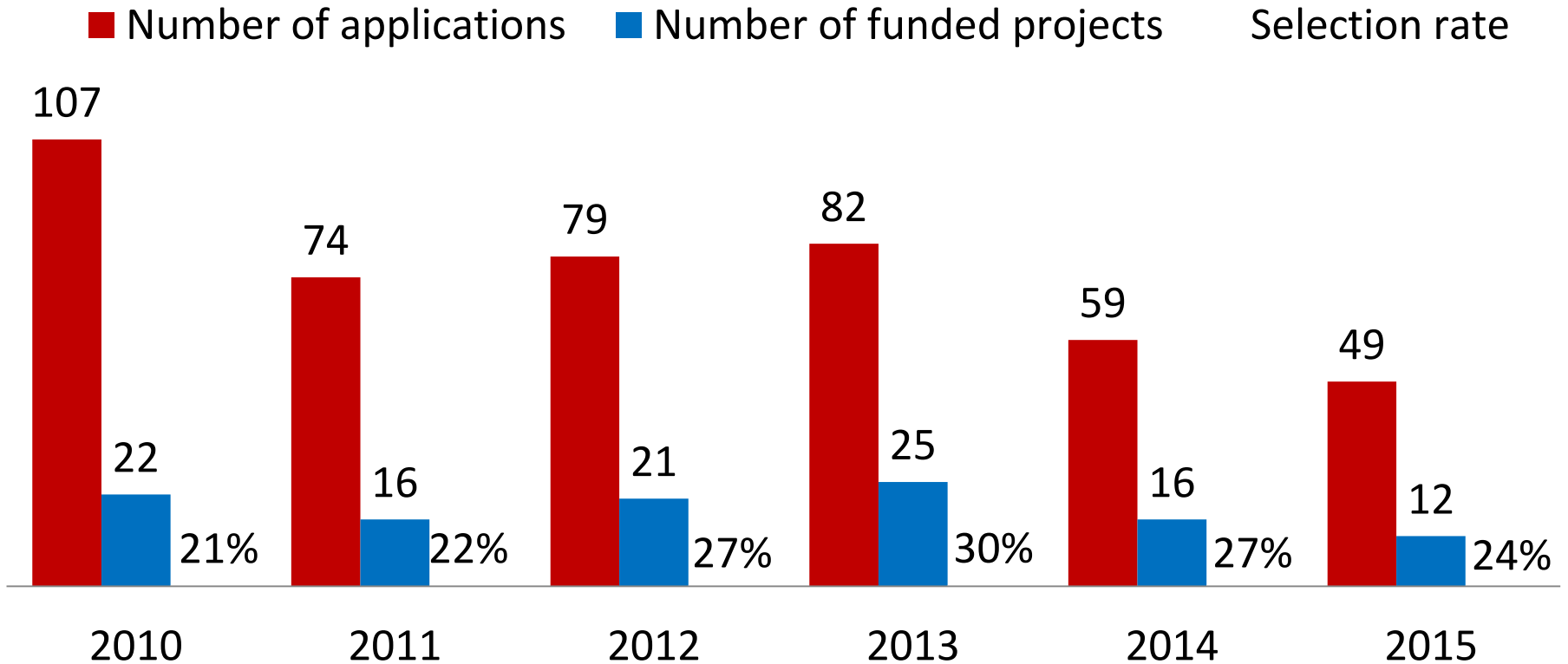
NUMBER OF APPLICATIONS VS SELECTION RATE (COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)



Average selection rate for 2010-2015 : 25% vs 32% mean
Average number of applications 2010-2015 : 75 vs 56 mean

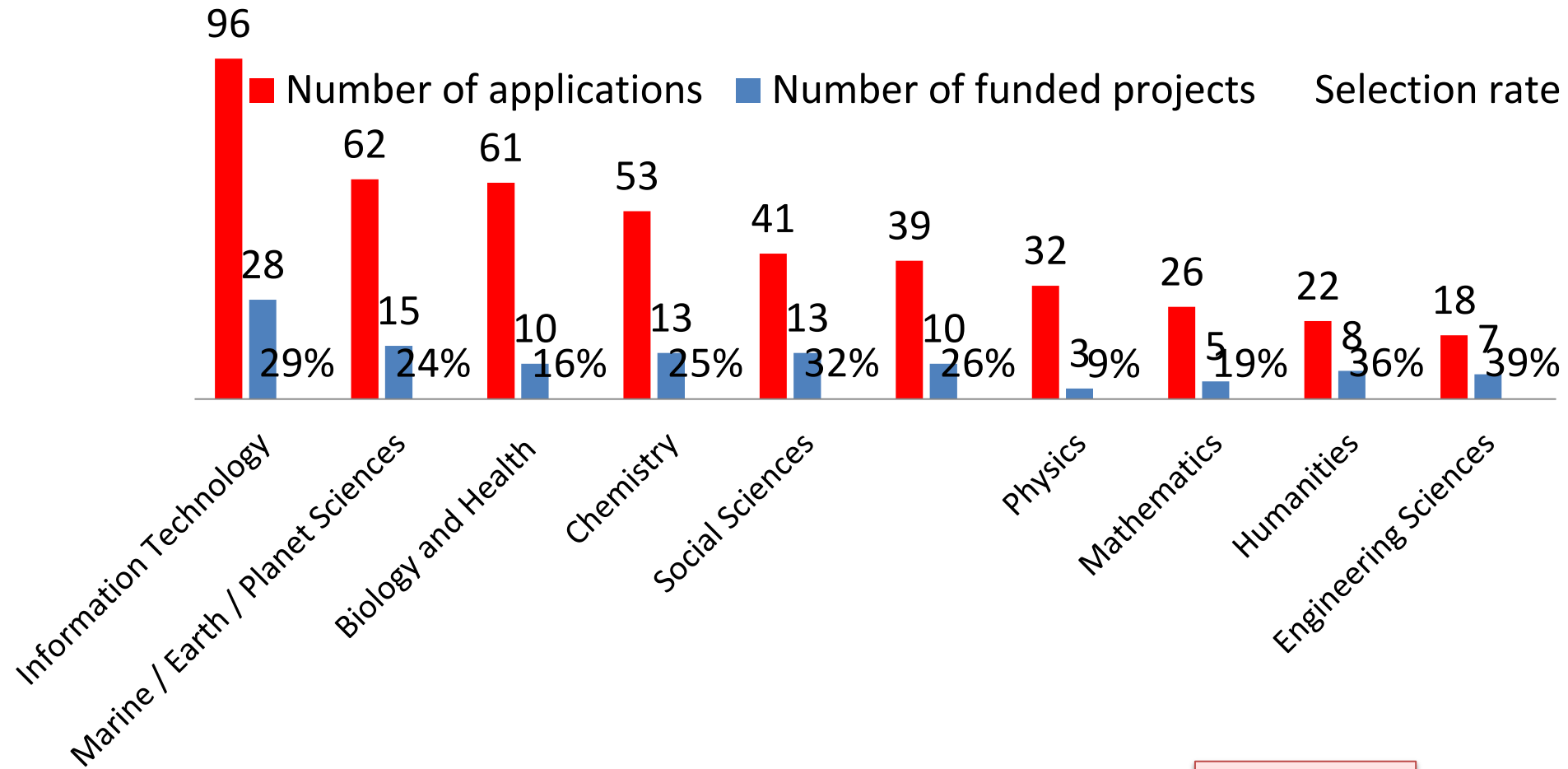
SUCCESS RATE

Average selection rate from 2010-2015: **25 %**



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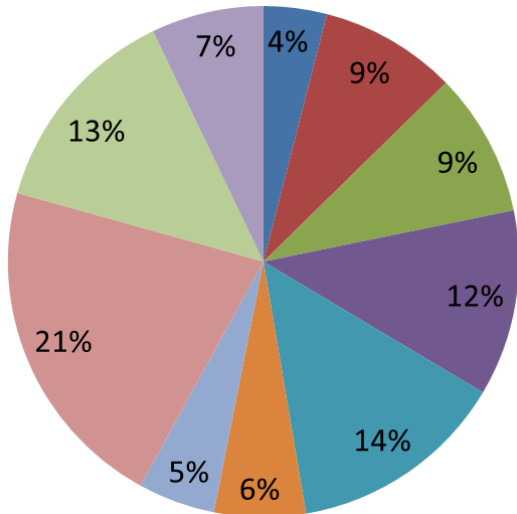
SCIENTIFIC DOMAINS



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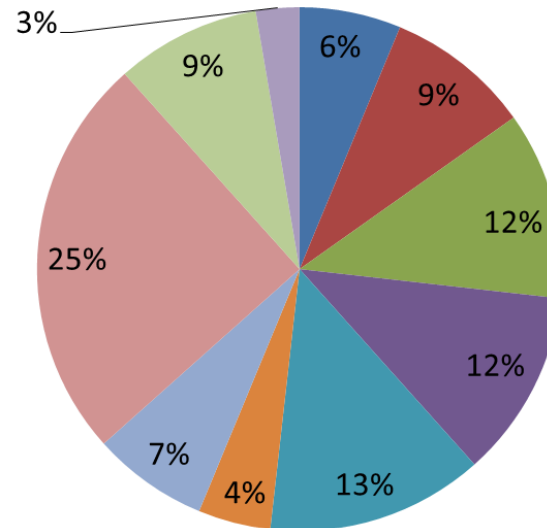
SCIENTIFIC DOMAINS OF PROJECTS

Number of applications : **450**



- Mathematics
- Physics
- Marine / Earth / Planet Sciences
- Chemistry
- Biology and Health

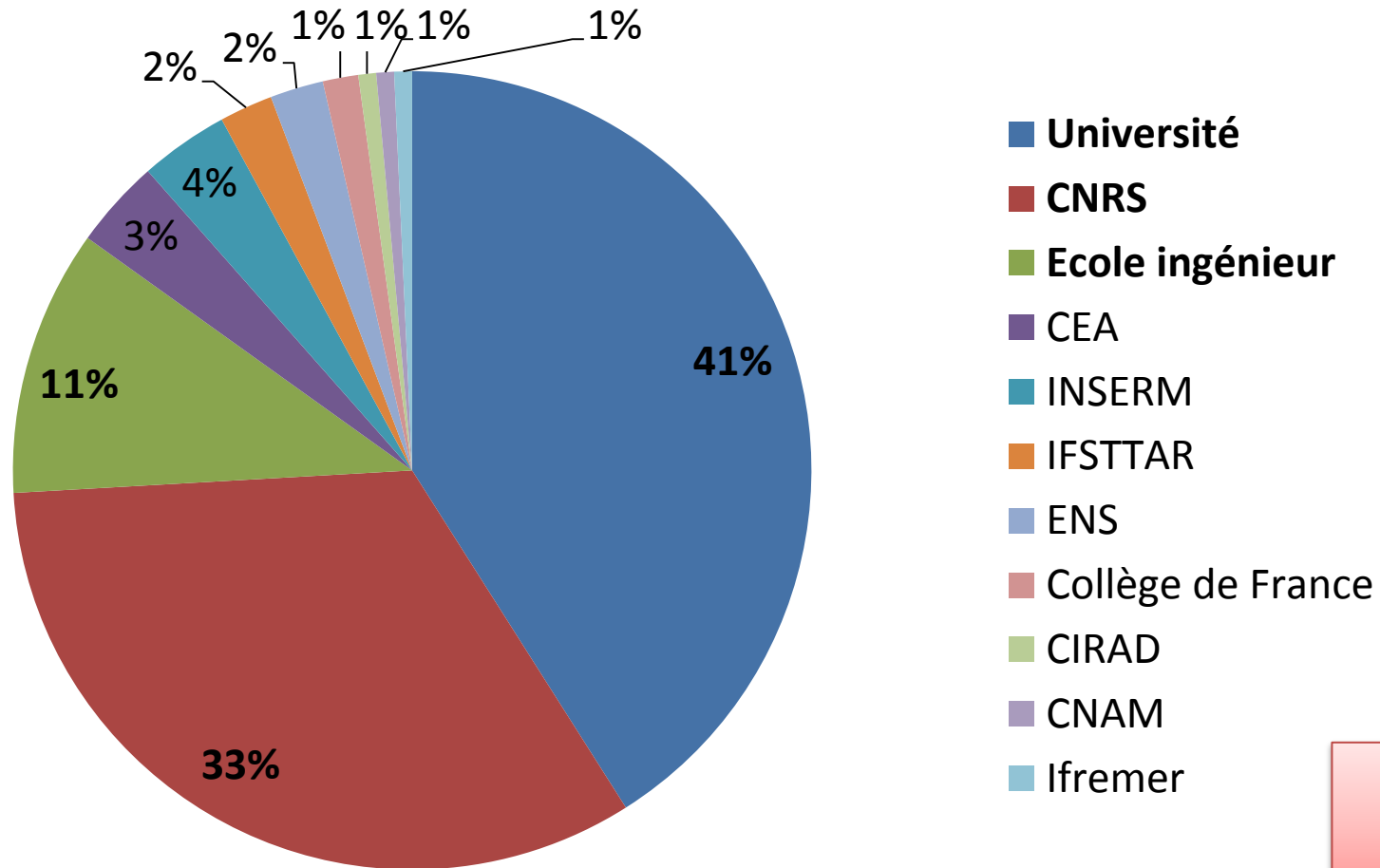
Number of funded projects : **112**



- Humanities
- Social Sciences
- Engineering Sciences
- Information Technology
- Agronomy / Food Science / Environment / Biodiversity

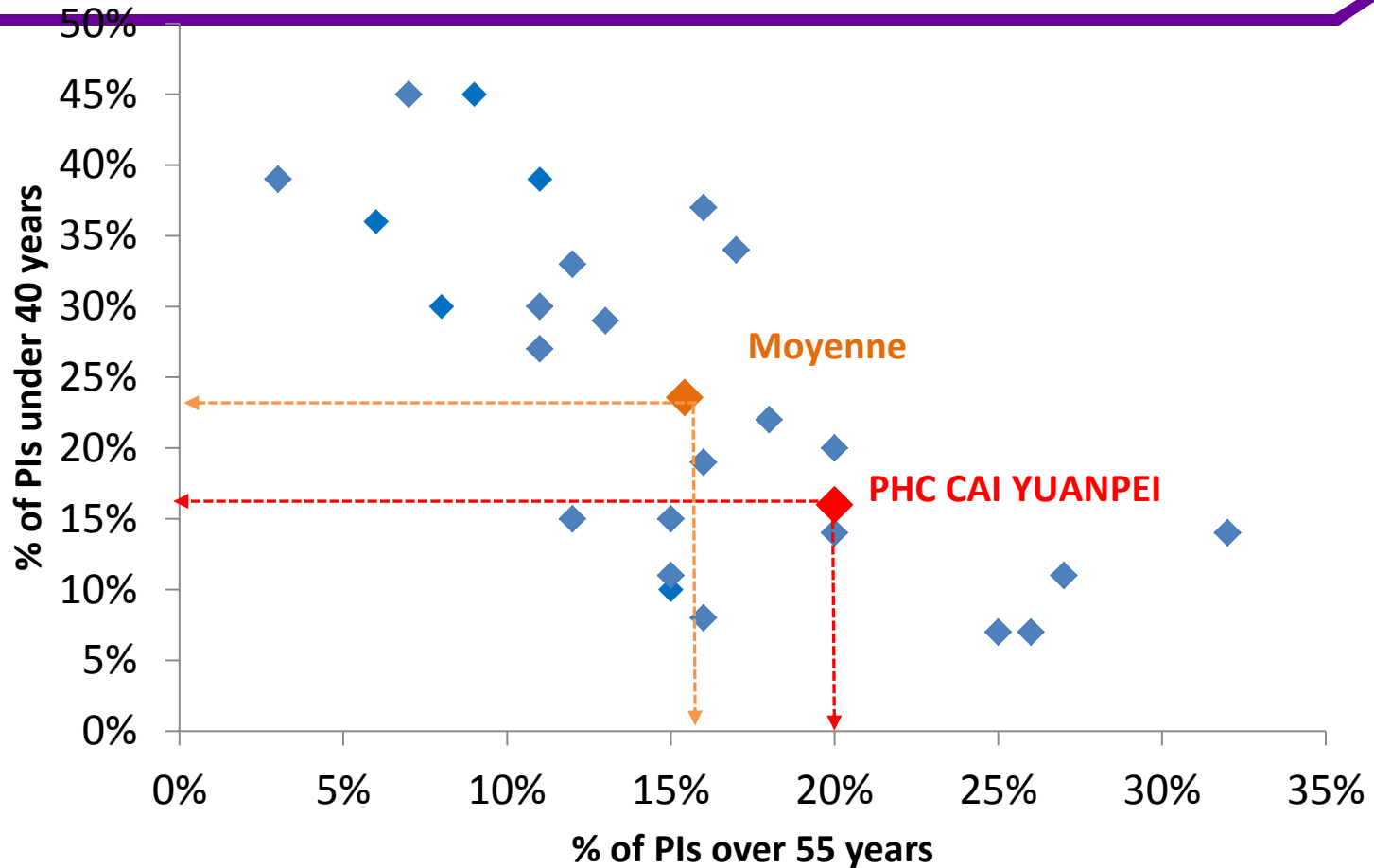
**Campus
France
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FRENCH PARTICIPATING INSTITUTIONS



Survey data

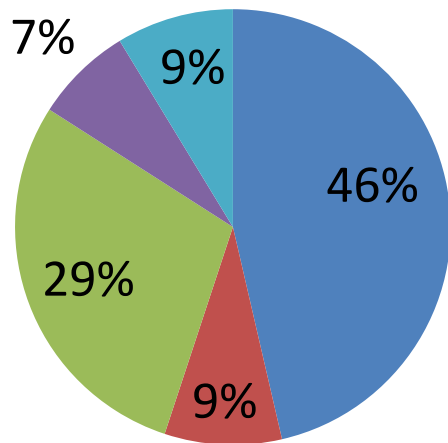
AGE OF PRINCIPAL INVESTIGATORS (PI) (COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)



PIs under 40 years : **16% vs 24% mean**
 PIs over 55 years : **20% vs 15% mean**
64% of the PIs are between 40 and 55 years

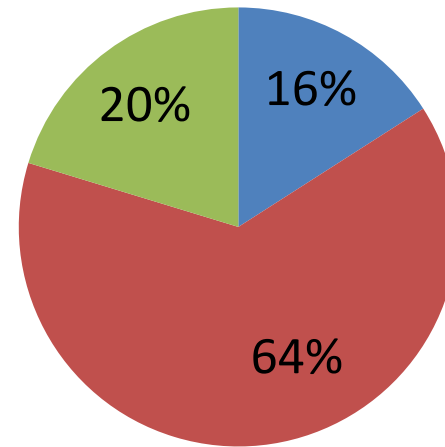
FRENCH PIS (PRINCIPAL INVESTIGATORS) : STATUS AND AGE

Current professional status



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

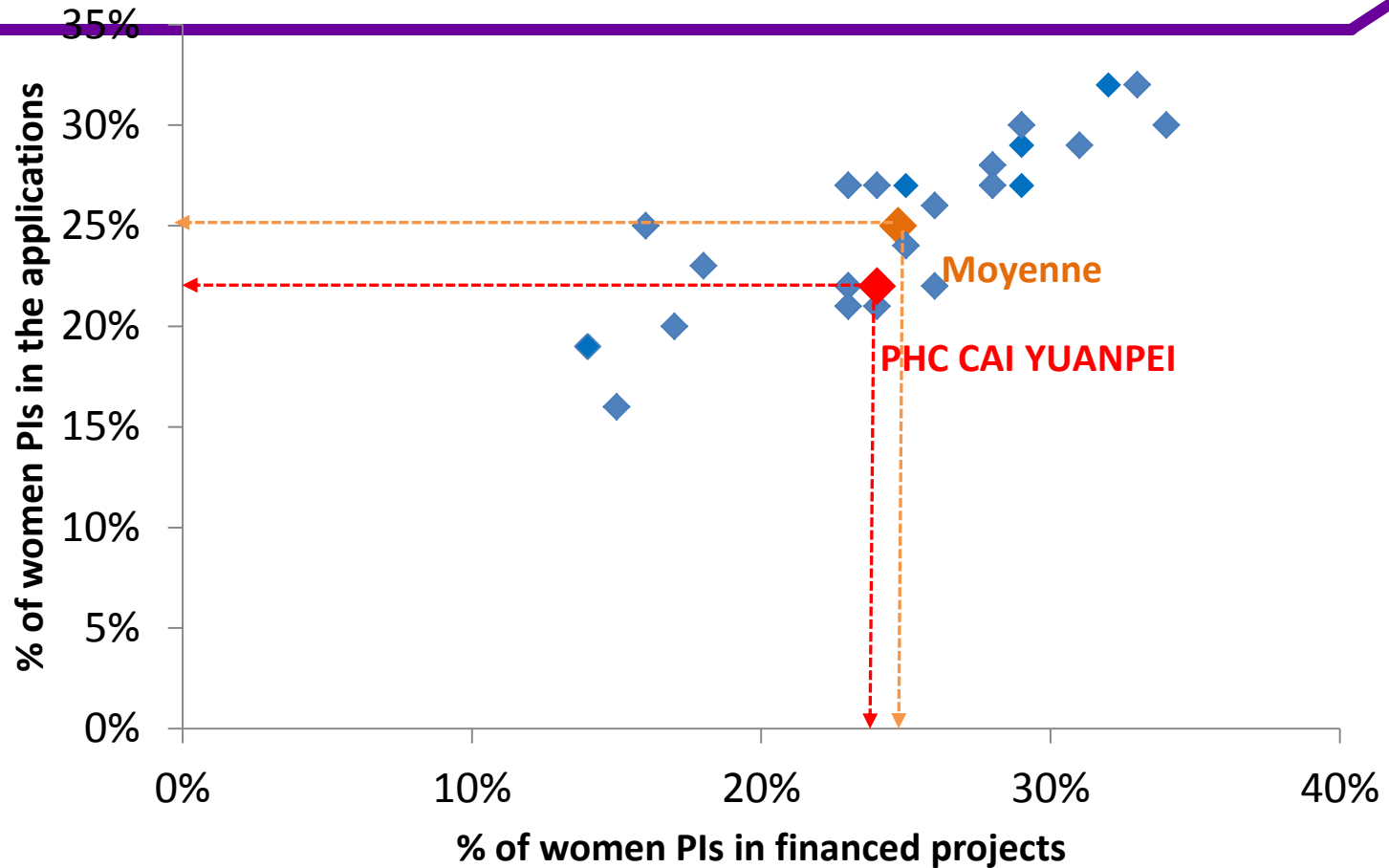
16 % of French PIs are young researchers



- <40 years
- between 40 and 55 years
- >55 years

Survey data

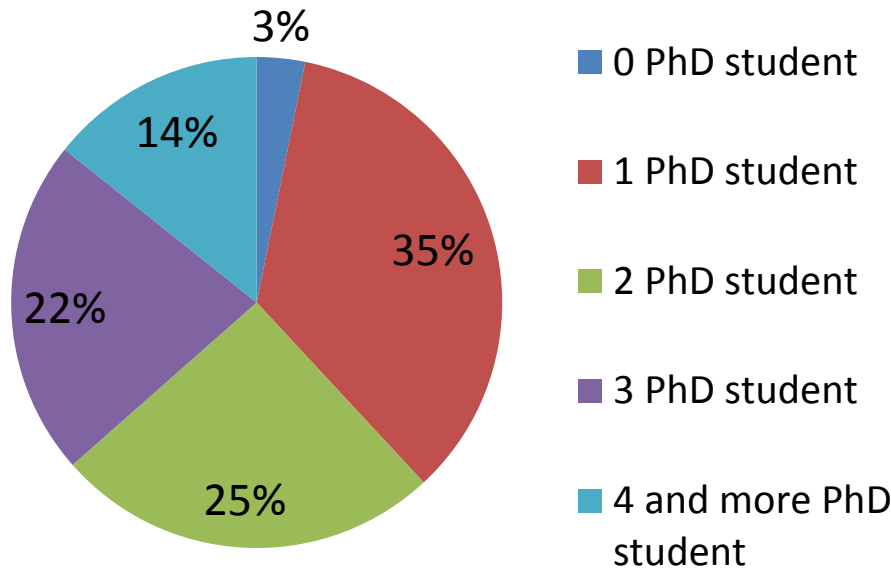
IMPLICATION OF WOMEN (FRANCE) (COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)



% of women PIs in the applications : 22% vs 25% mean
% of women PIs in the selected projects : 24% vs 25% mean

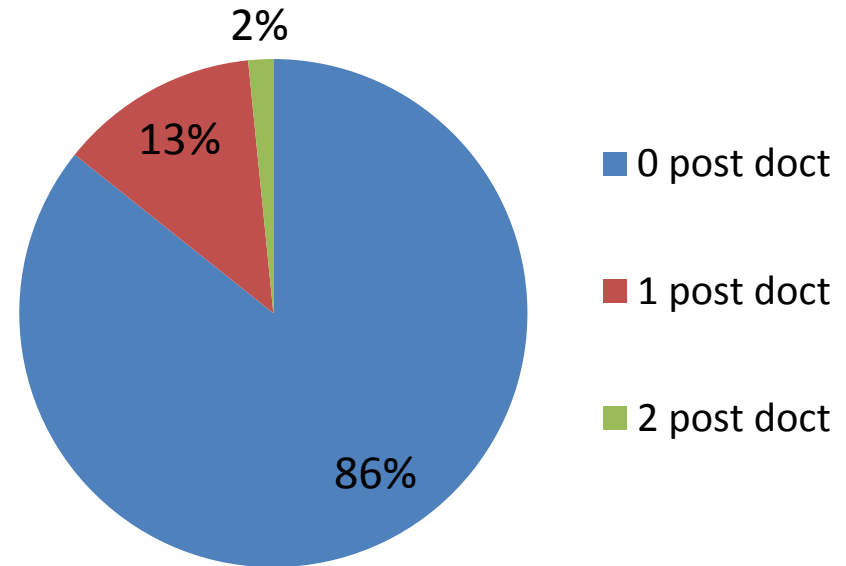
PARTICIPATION OF YOUNG RESEARCHERS

Number of PhD students



97 % of projects integrate PhD students

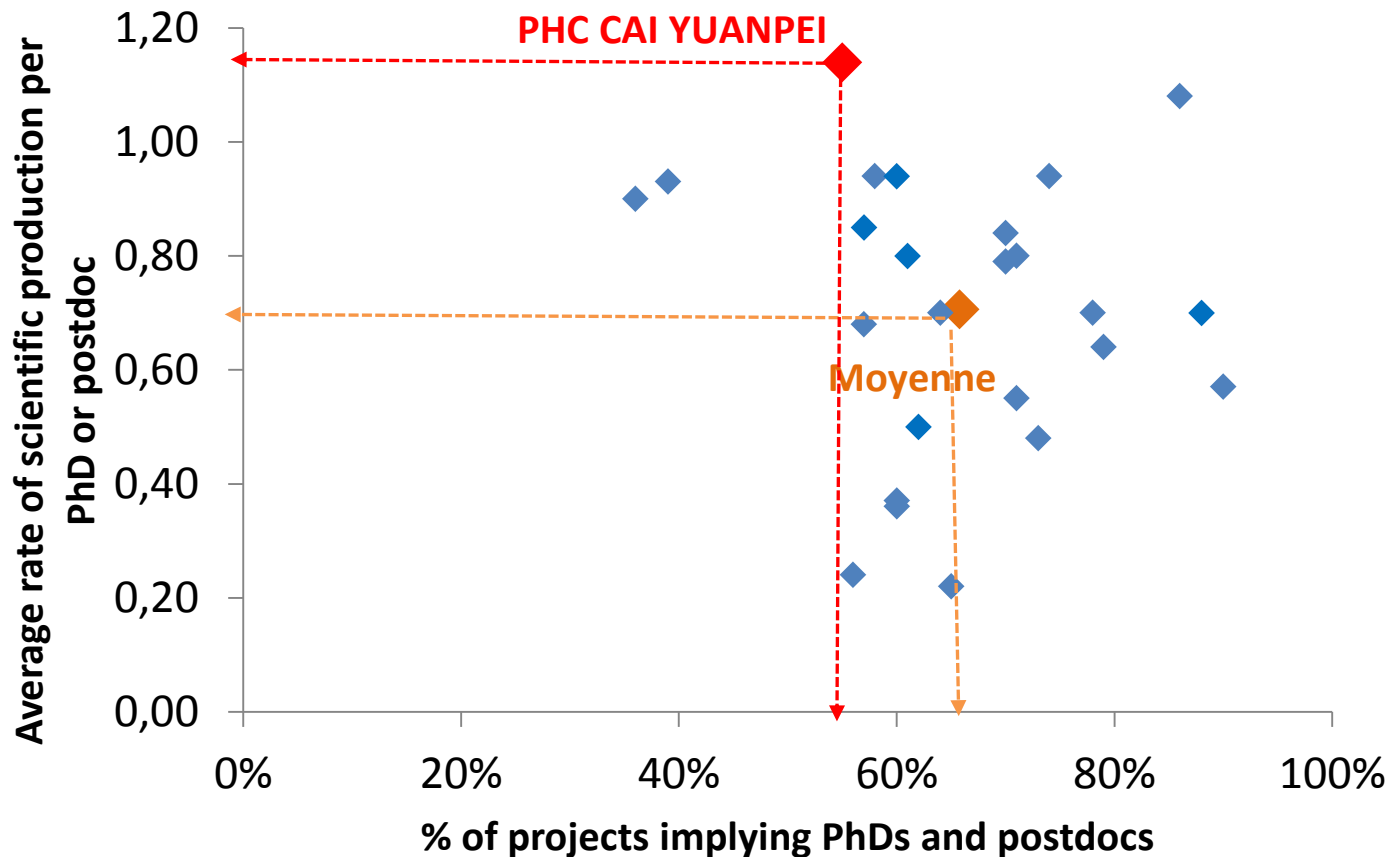
Number of post-doctoral researchers



14 % of projects integrate post-doctoral researchers

IMPLICATION OF PhDs

(COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)

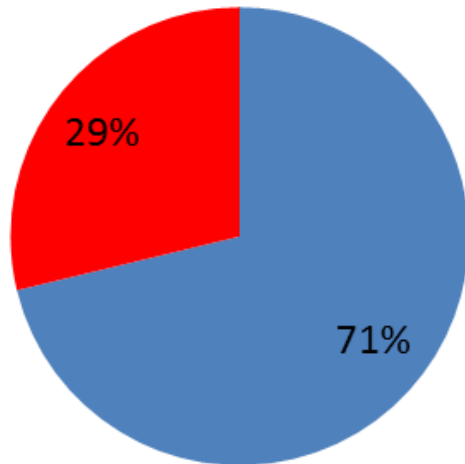


% of projects implying PhDs and Post-doc : 55% vs 65% mean
Average rate of scientific production per PhD : 1,14 vs 0,70 mean

Mobility

MOBILITY : GENDER DISTRIBUTION

France → China



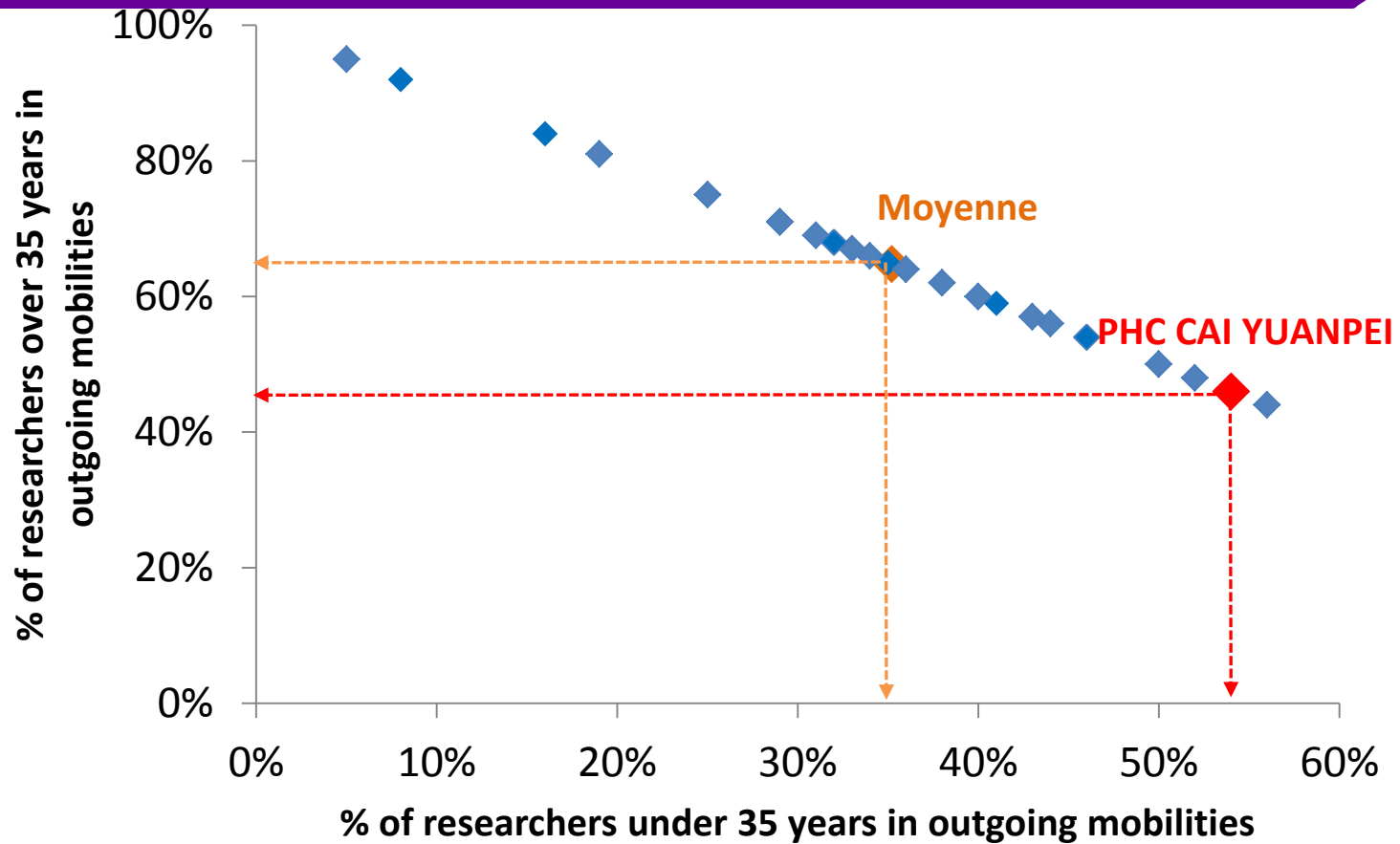
China → France

No data available

■ Men ■ Women

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MOBILITY FRANCE – CHINA (COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)

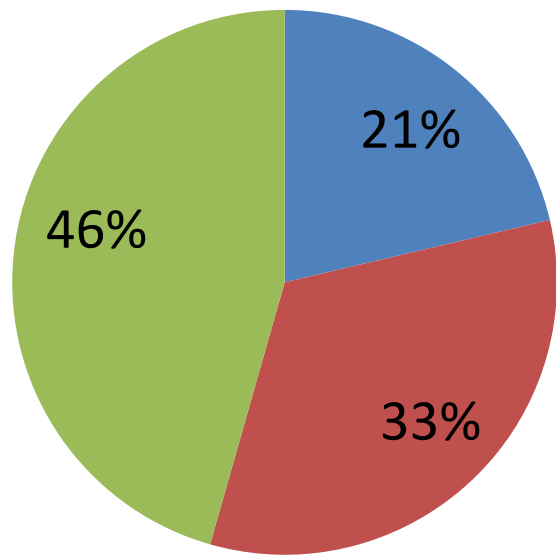


% of french young researchers in outgoing mobilities : 54% vs 35% mean

MOBILITY : STATUS

France → China

Mobilité sortante / Profil



- carried out by PhD Students (<28 years old)
- carried out by Post-Doctoral Researchers (28<=age<=35 years old)
- carried out by permanent researchers (>35 years old)

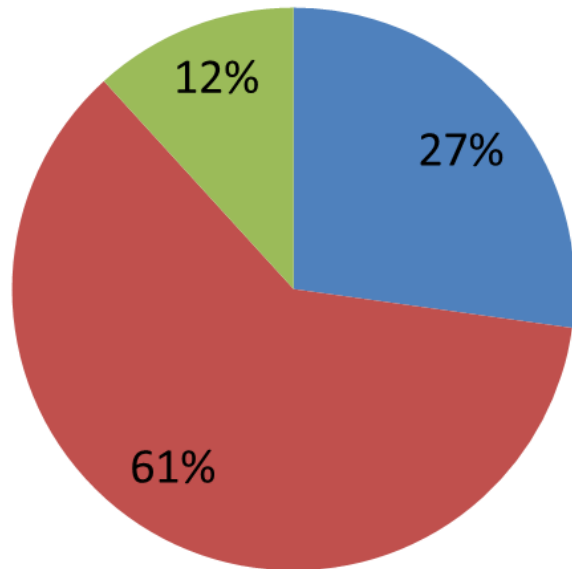
China → France

No data available

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data

MOBILITY : DURATION

France → China



■ < 15 days

■ between 15 days and 3 months

■ > 3 months

China → France

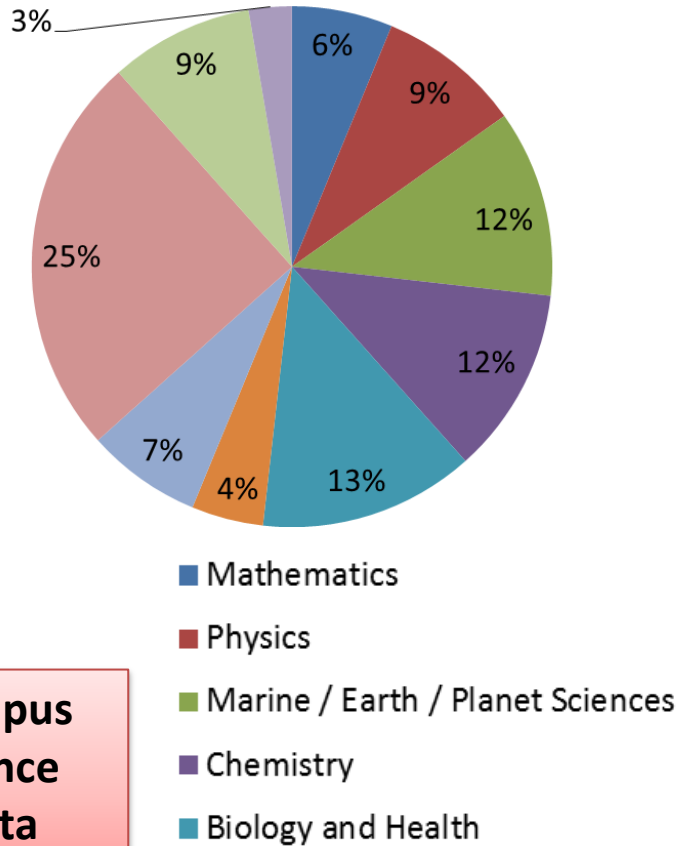
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Scientific production

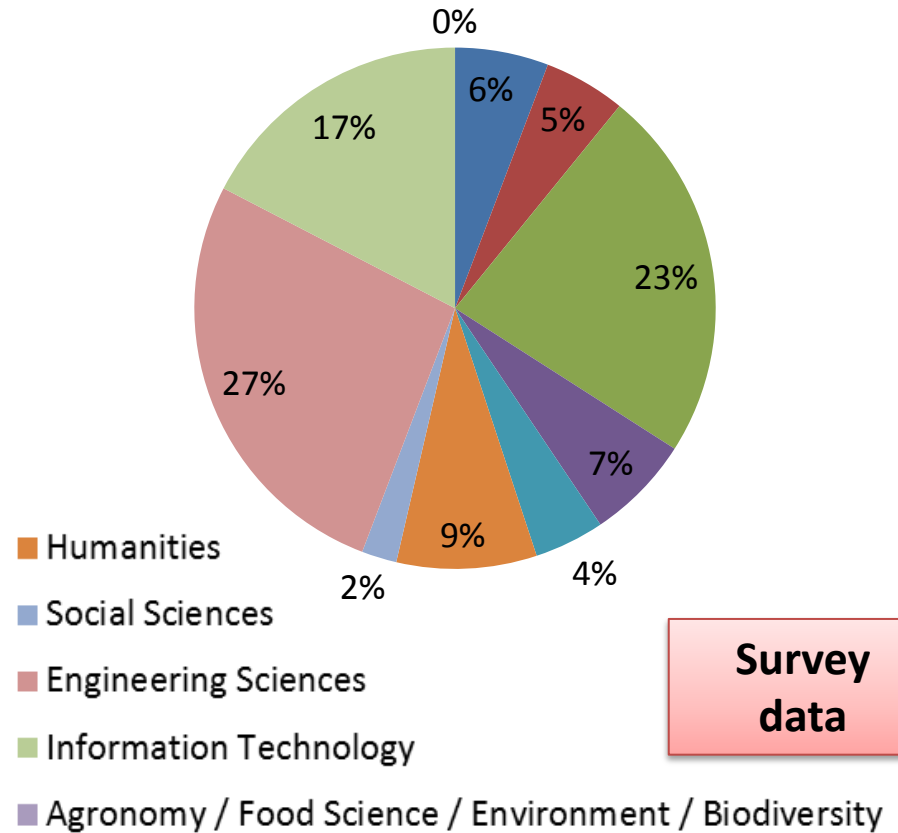
SCIENTIFIC OUTPUT (1/2)

Number of funded projects : **112**



**Campus
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Percentage of copublications



**Survey
data**

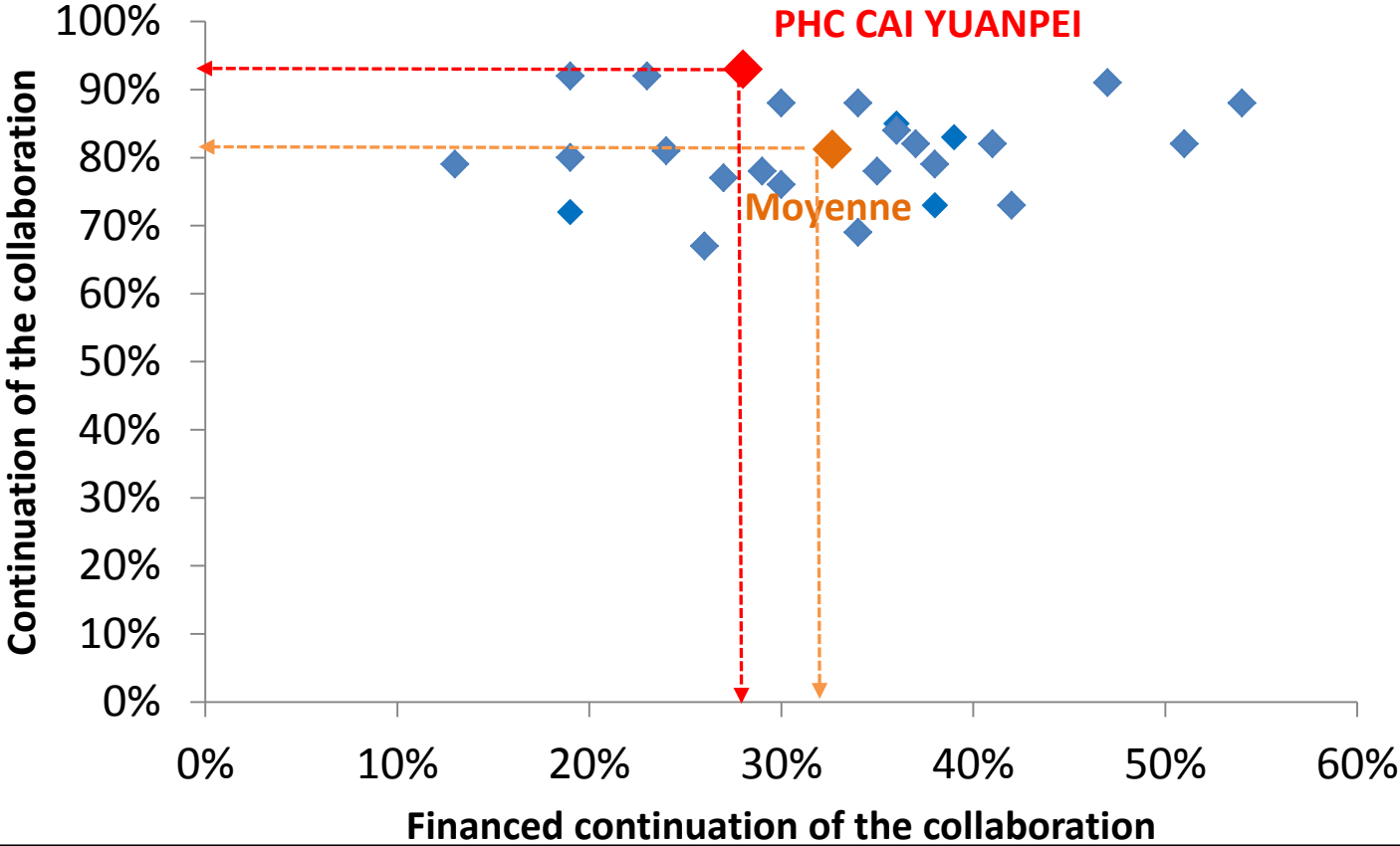
SCIENTIFIC OUTPUT (2/2)

64% of funded projects led to one co-publication at least
52% of copublications include at least 1 PhD or PostDoc

	Number of funded projects by thematic area	Ratio of funded projects by thematic area	Number of co-publications	Ratio of co-publications by thematic area	Ratio of funded projects by thematic area that led to one co-publication at least	Average number of co-publications per project
Mathematics	3	6%	8	6%	100%	2,7
Physics	4	8%	7	5%	50%	1,8
Marine / Earth / Planet Sciences	6	12%	32	23%	83%	5,3
Chemistry	7	14%	9	7%	57%	1,3
Biology and Health	6	12%	6	4%	50%	1,0
Humanities	1	2%	12	9%	100%	12,0
Social Sciences	2	4%	3	2%	50%	1,5
Engineering Sciences	14	28%	37	27%	64%	2,6
Information Technology	5	10%	24	17%	80%	4,8
Agronomy / Food Science / Environment / Biodiversity	2	4%	0	0%	0%	0,0
TOTAL	50	100%	138	100%	64%	2,8

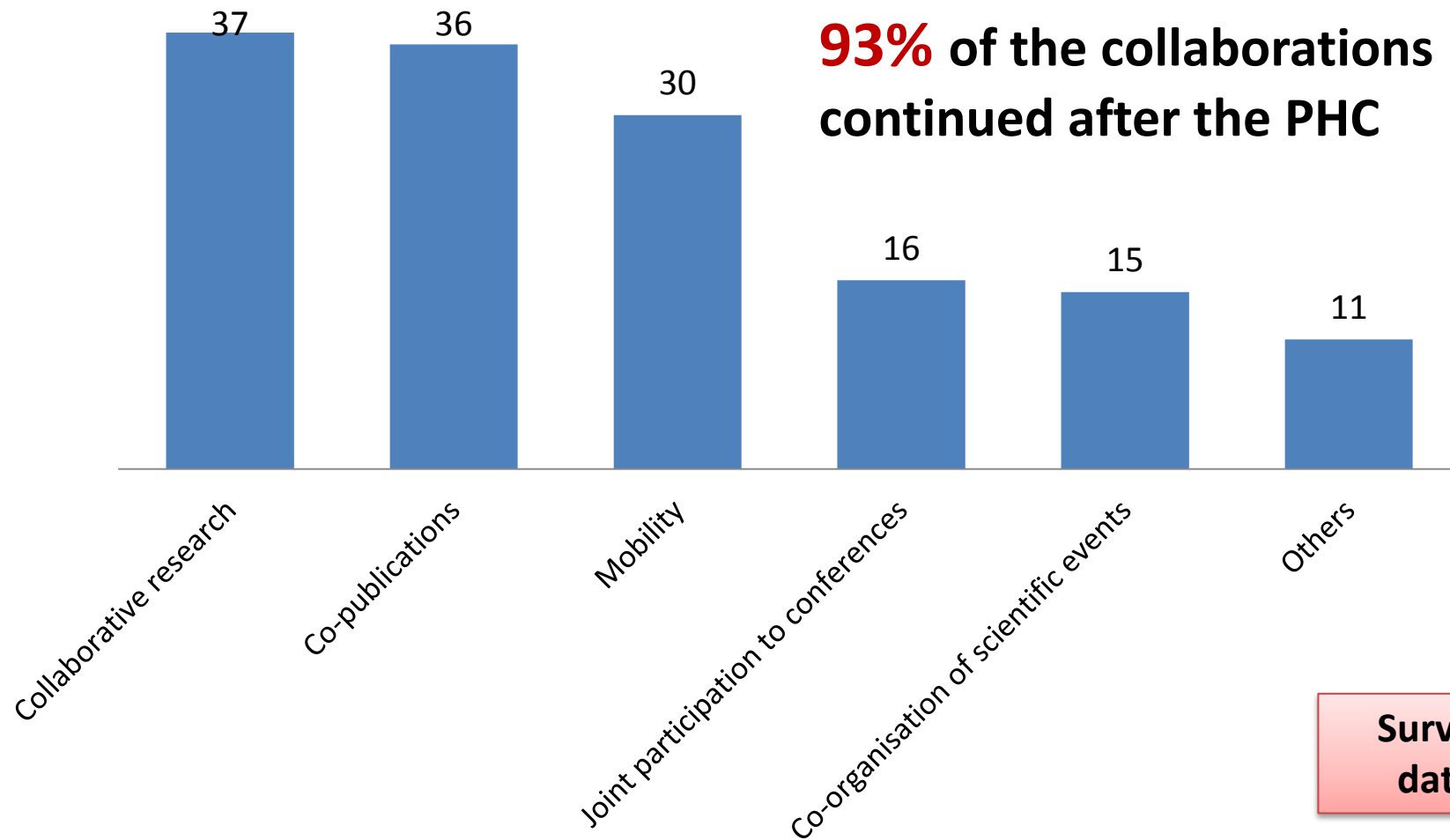
What happens after a PHC Cai Yuanpei project ?

CONTINUATION OF THE COLLABORATION (COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)



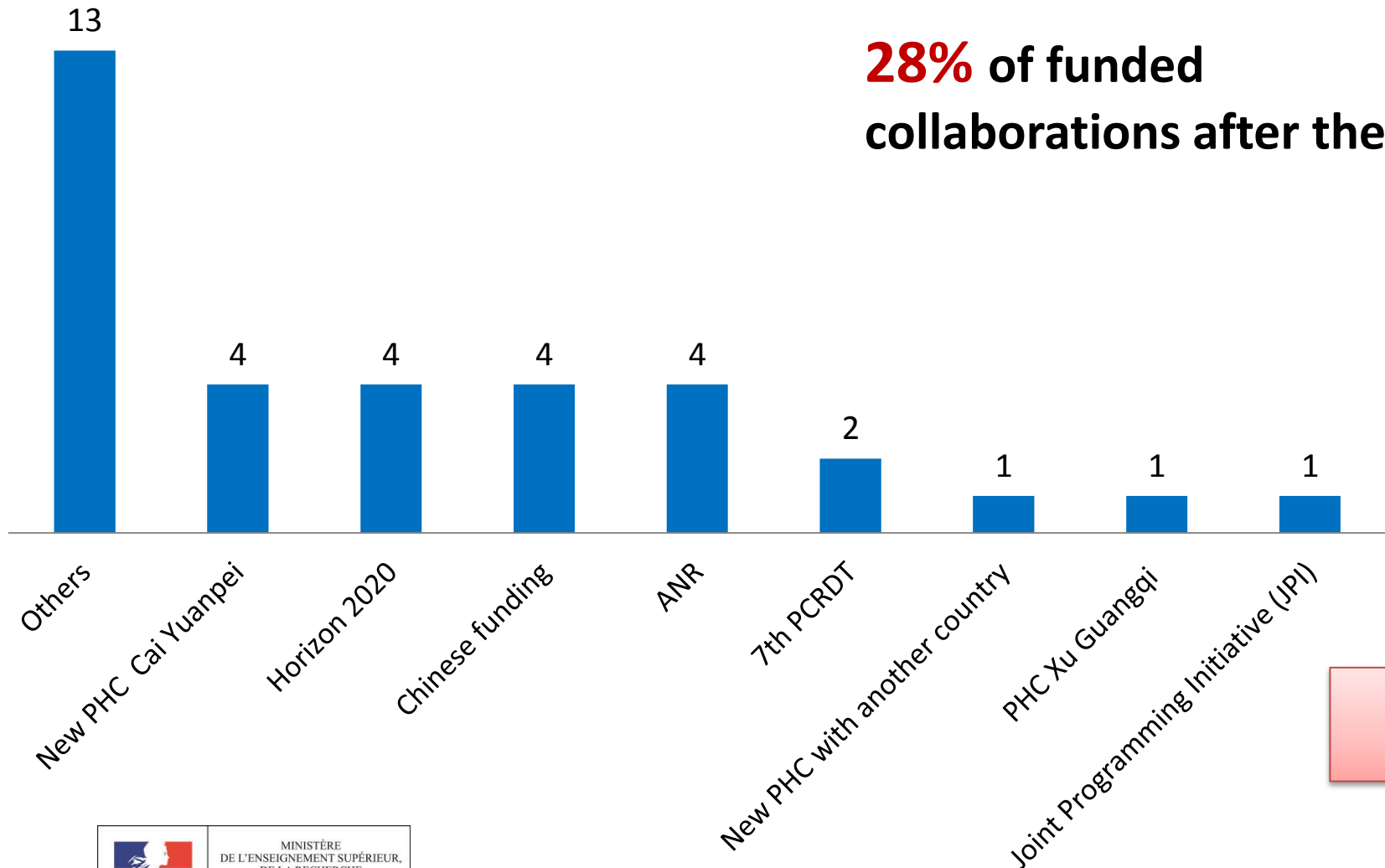
Continuation of the collaboration : 93% vs 81% mean
Continuation of the collaboration with other sources of subvention : 28% vs 33% mean

CONTINUATION OF THE COLLABORATION



Survey data

CONTINUATION OF THE COLLABORATION

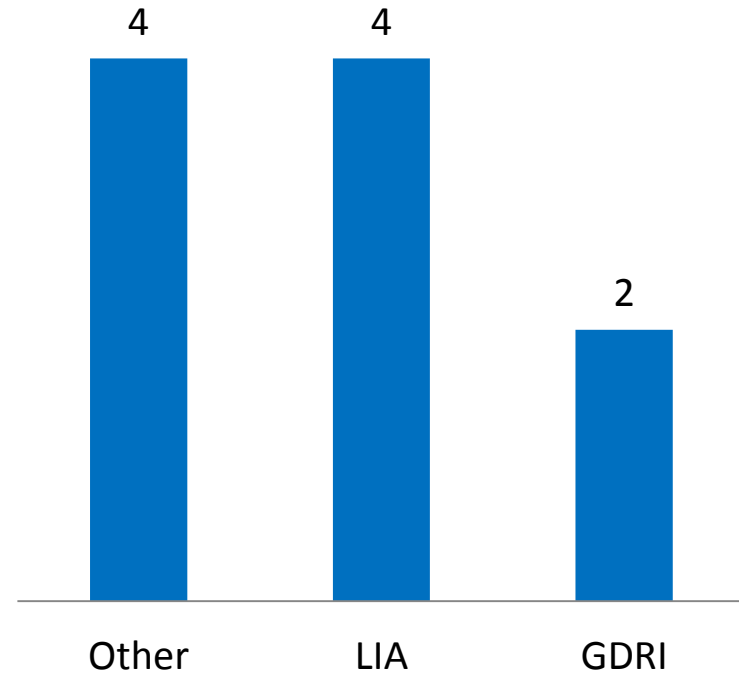
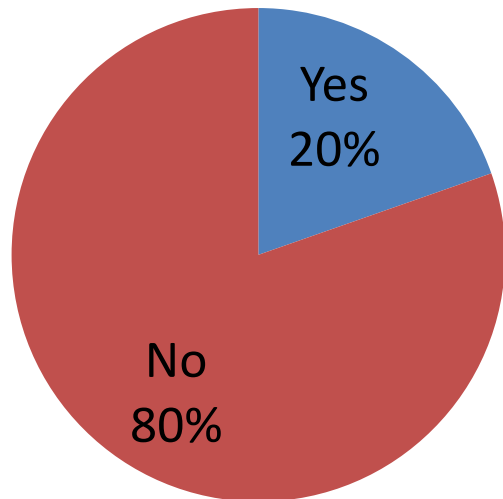


28% of funded collaborations after the PHC

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CONTINUATION OF THE COLLABORATION

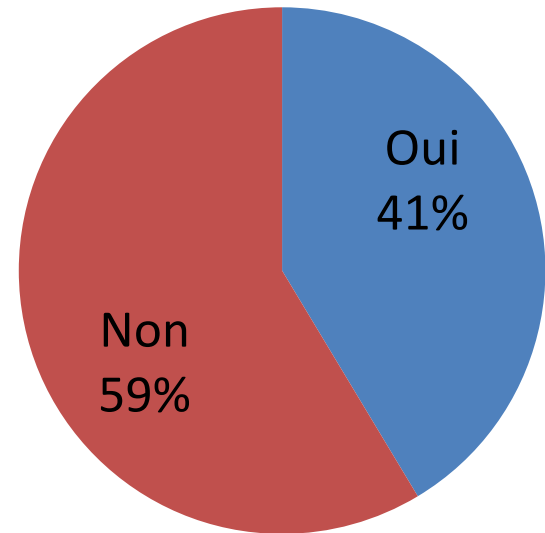
Has the program Cai Yuanpei led to the set-up of **joint structures**?



Survey data

CONTINUATION OF THE COLLABORATION

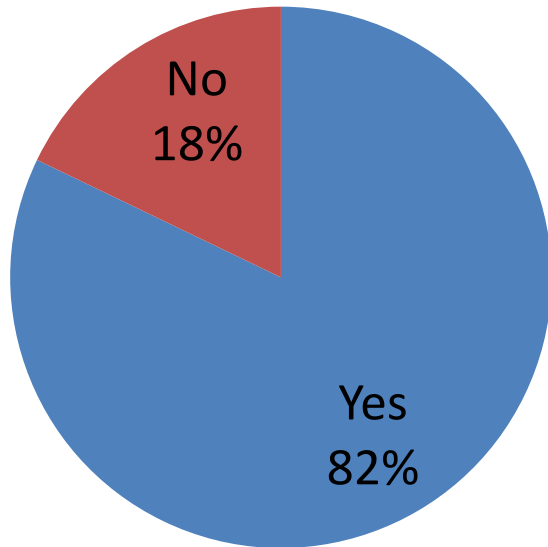
**Has the French-Chinese
collaboration involved new
partners?**



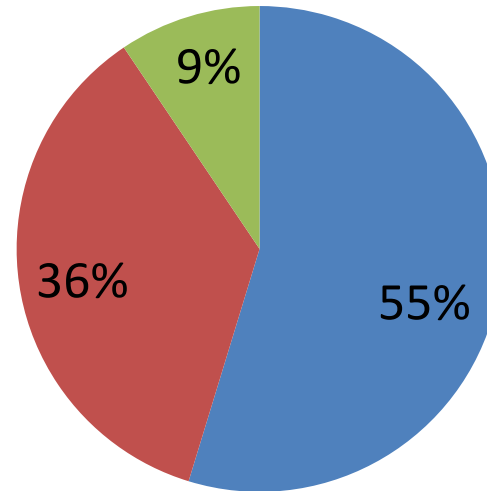
**Survey
data**

IMPACT ON YOUNG RESEARCHERS' CAREER

% of young researchers whose career was impacted by the PHC program



Type of impacts



- Academic job
- Post-PhD
- Job in a private company

Survey data

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”.

- + Average number of co-publications per project is very good.**
- Involvement of young researchers and co-publication rate (funded projects that led to one co-publication at least) could be improved.**

PRELIMINARY RECOMMENDATIONS

RECOMMENDATIONS

- **Increase success rate (24%)**
- **Promote scientific co-publications (36% of projects with no co-publications)**
- **Promote co-publications by young researchers (48% of co-publications are done without any young researcher)**
- **Promote applications from women (22%) and foster mobility (12%)**
- **Promote applications from young researchers (16%) and mobility (38%)**
- **Promote integration of post-doctoral researchers in the projects (14 %)**

CONCLUSIONS

Preliminary conclusions suggest that the funding scheme is efficiently contributing to creating (maintaining) fruitful and long term cooperation, despite the relatively low financial support, which is to be considered as “seed money”.

Thank you for your attention

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

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