

FRANCE – COLOMBIA ECOS NORD COLOMBIA 21 YEARS ANNIVERSARY

Scientific impact of the program (2006-2018)

MESRI-DAEI / MEAE

2019

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

GENERAL PRESENTATION OF THE PROGRAMME

Creation : 1998

The purpose of this program is to support research joint projects of excellence in scientific cooperation, by funding the mobility of researchers and refresher courses for the PhD students involved in the selected projects.

Total budget (France + Colombia) : around 350 000 € / year

>> including budget from France : 175 000 € / year *

>> including budget from Colombia : same 175 000 € / year

Average budget per project (France + Colombia) : 16 750 € / year

Number of new projects per year : around 9

From 2005-2016:

257 applications submitted

101 projects funded

DATA SOURCES

ECOS North Colombia committee

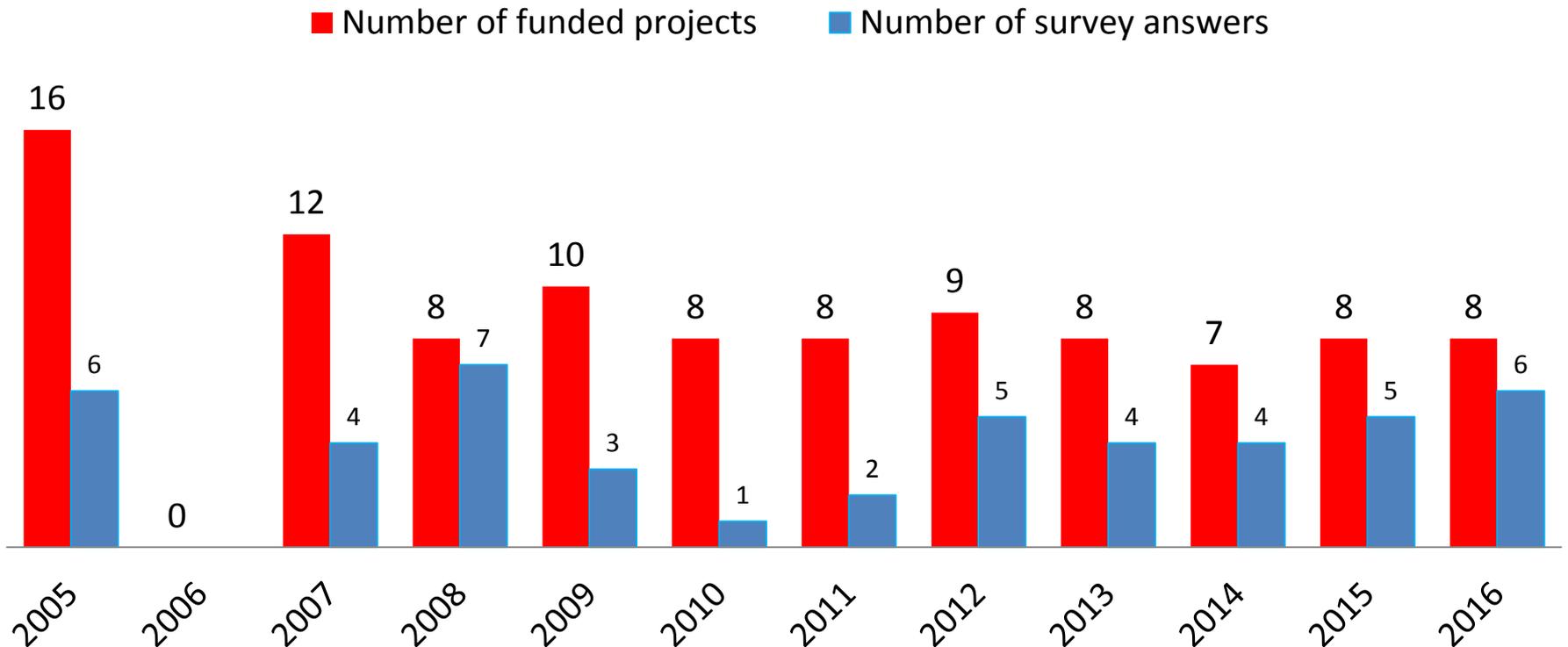
- Informations about applications to the ECOS Nord Colombia program
- List of mobilities (France to Colombia and Colombia to France)

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

- Target : Principal Investigators of selected projects between 2005 and 2016
- Survey duration : 6 weeks between **February and March 2019**, focusing on the projects funded between 2005 and 2016
- **47%** response ratio *(47 respondents for 101 funded projects)*

ANSWERS TO THE SURVEY

Average response rate to the survey : **47 % (47 answers)**



**ECOS NORD
Committee
& Survey
data**

2005-2018

Key Points

BEFORE THIS ECOS NORD COLOMBIA PROJECT (1/4)

53% of French PIs have already collaborated with Colombia

With which scientific collaboration program?	
ECOS Nord Colombie	34%
Other	19%
Colciencias	4%
International scientific collaboration project (PICS CNRS)	2%

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BEFORE THIS ECOS NORD COLOMBIA PROJECT (2/4)

60% of French PIs have already collaborated with
the same Colombian partner

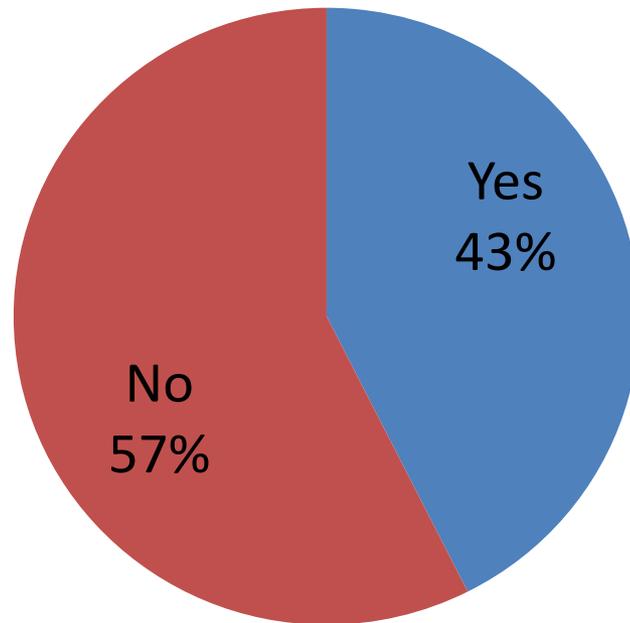
Which history of that collaboration

Stay of a researcher in the laboratory partner	45%
Co-publication	36%
Management of students or trainees	30%
Joint supervision of PhD thesis	23%
Joint project funded by another way	13%
Other	11%

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BEFORE THIS ECOS NORD COLOMBIA PROJECT (3/4)

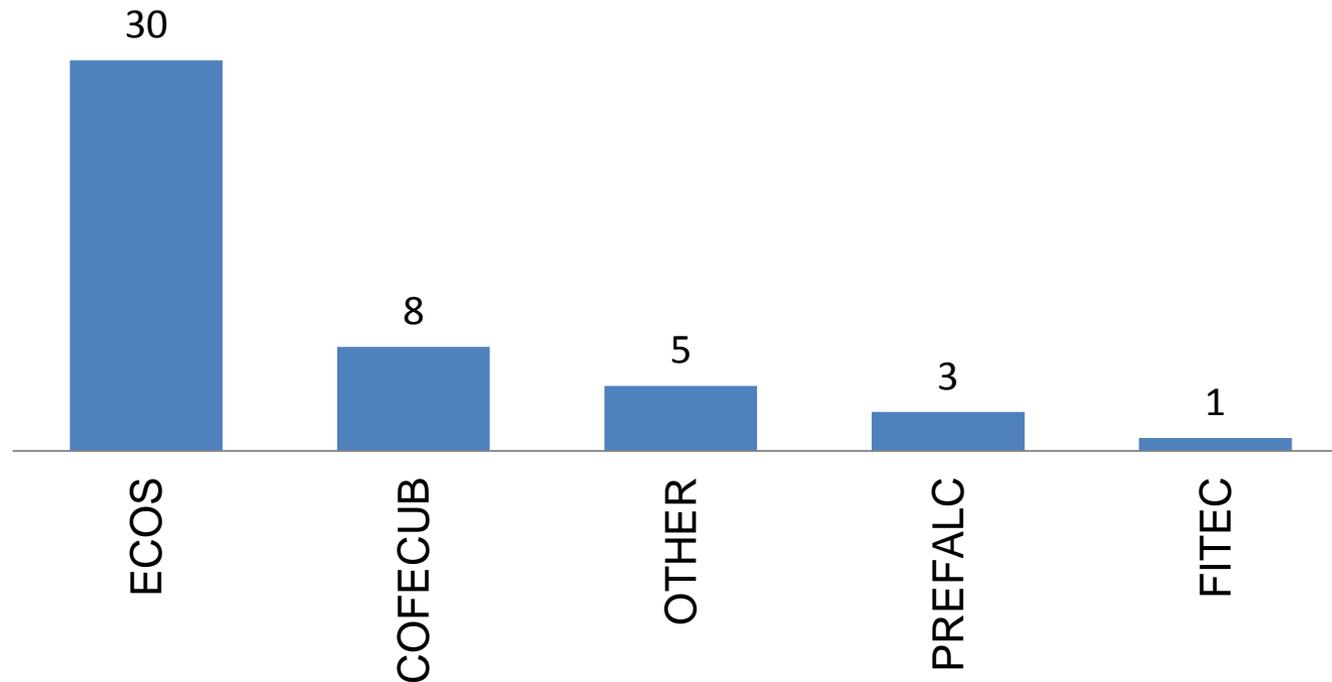
Previous participation to another academic and scientific funded cooperation program supported by France in Latin America



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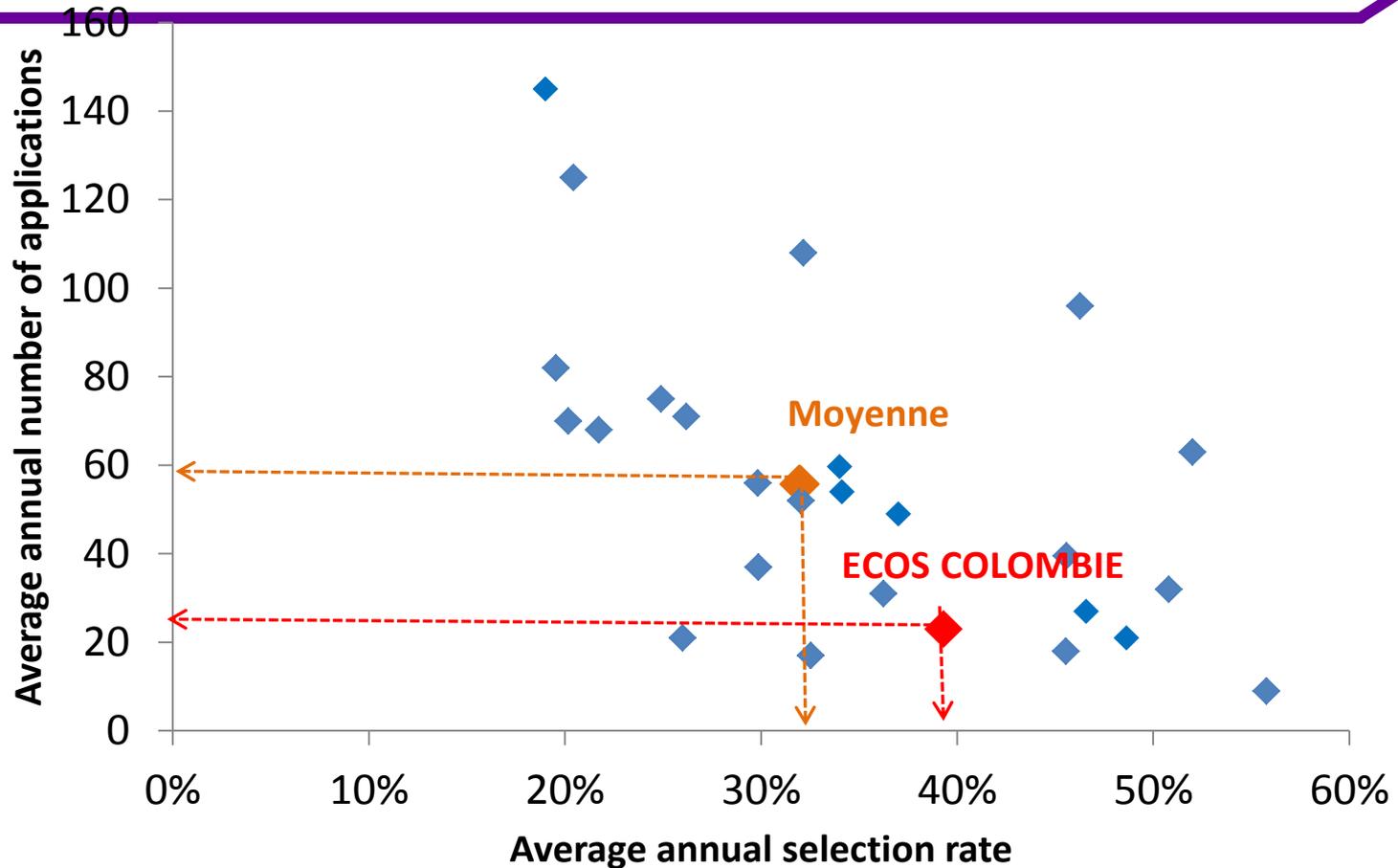
BEFORE THIS ECOS NORD COLOMBIA PROJECT (4/4)

Previous participation to another academic and scientific funded cooperation program supported by France in Latin America



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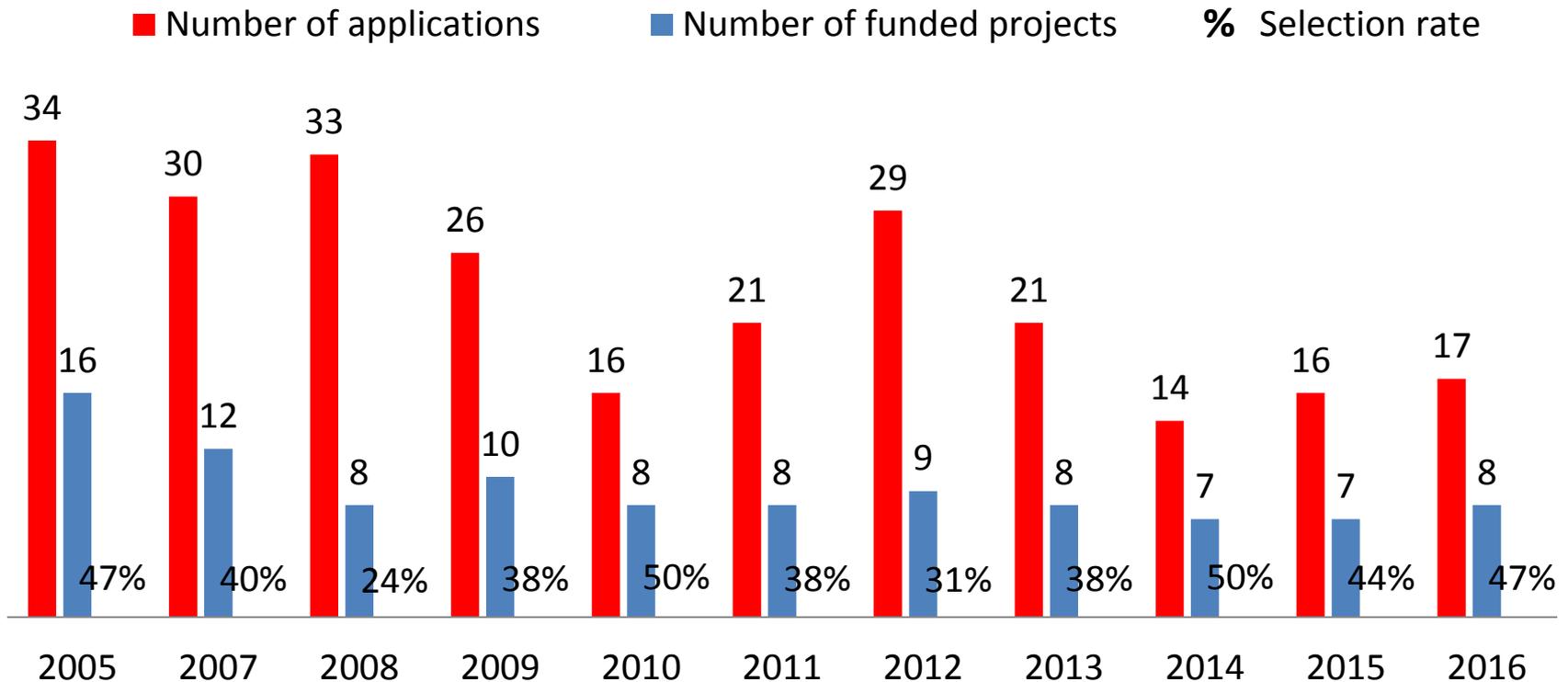
NUMBER OF APPLICATIONS VS SELECTION RATE (COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)



Average selection rate for 2005-2017 : 39% vs 32% mean
Average number of applications 2005-2017 : 23 vs 56 mean

SUCCESS RATE

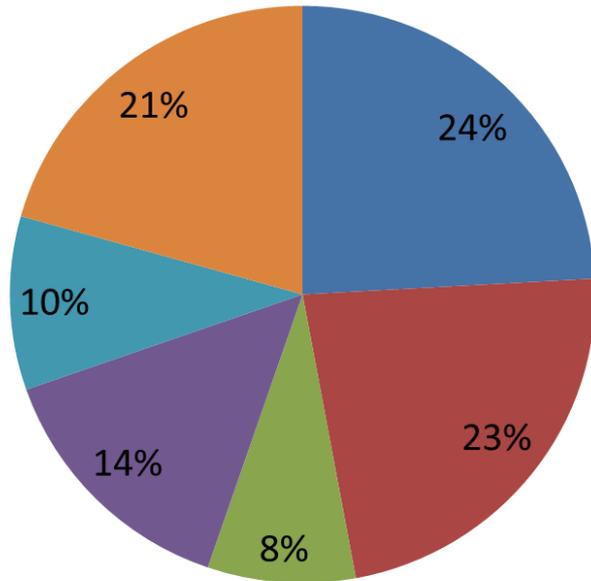
Average selection rate from 2005-2016: **39 %**



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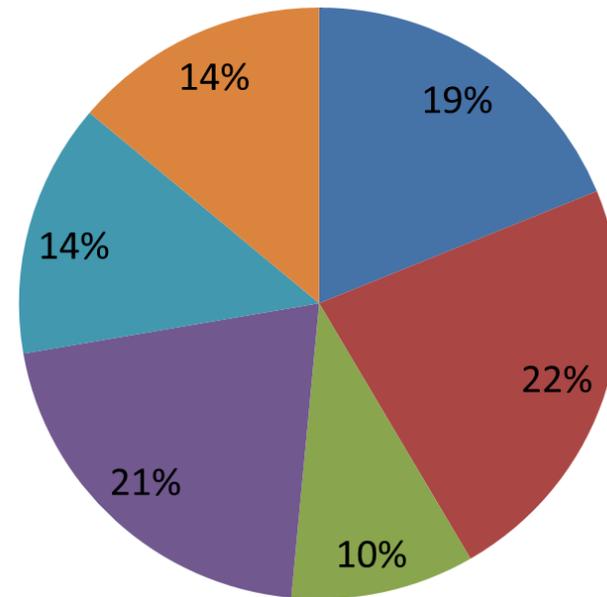
SCIENTIFIC DOMAINS OF PROJECTS

Number of applications : **257**



- Mathematics / Information Technology / Engineering Sciences
- Physics / Chemistry
- Marine / Earth / Planet Sciences

Number of funded projects : **101**

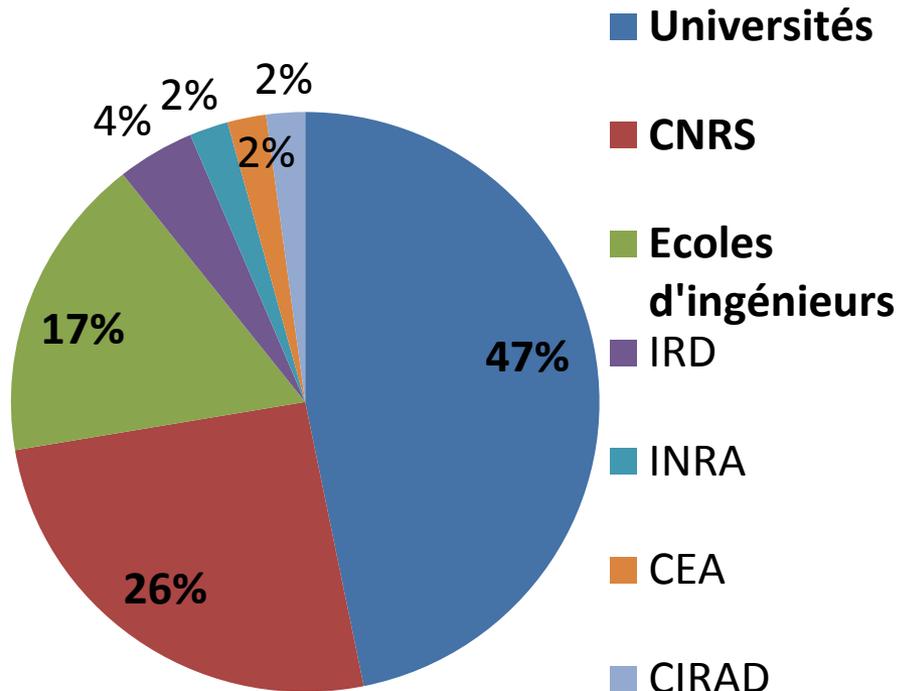


- Biology and Health
- Agronomy / Food Science / Environment / Biodiversity
- Humanities / Social Sciences

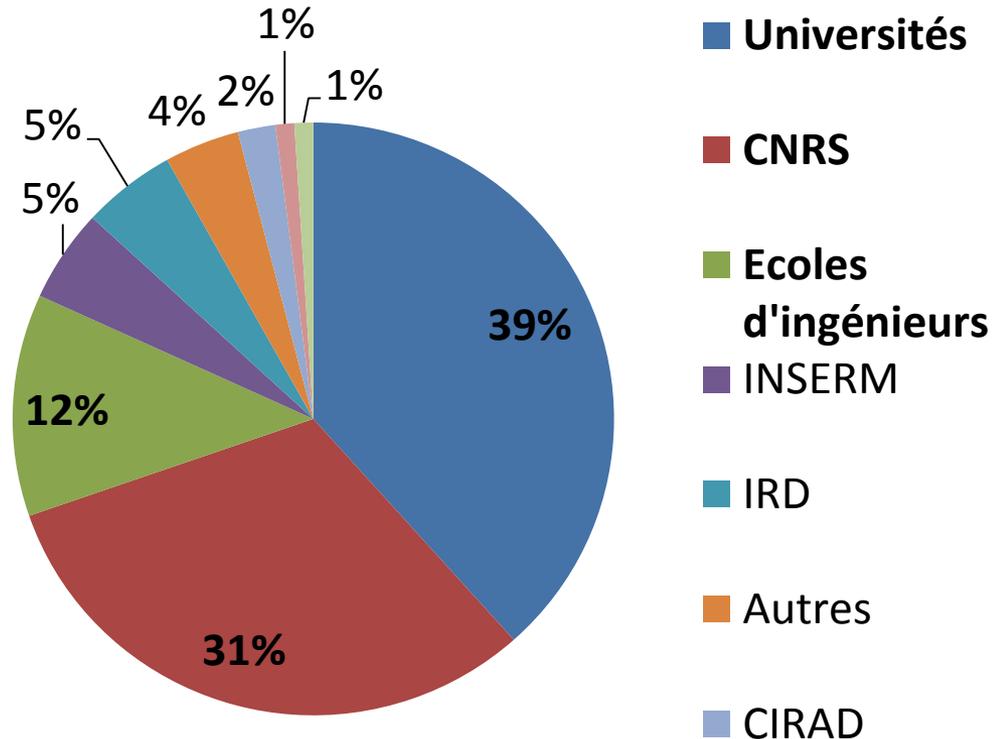
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FRENCH PARTICIPATING INSTITUTIONS

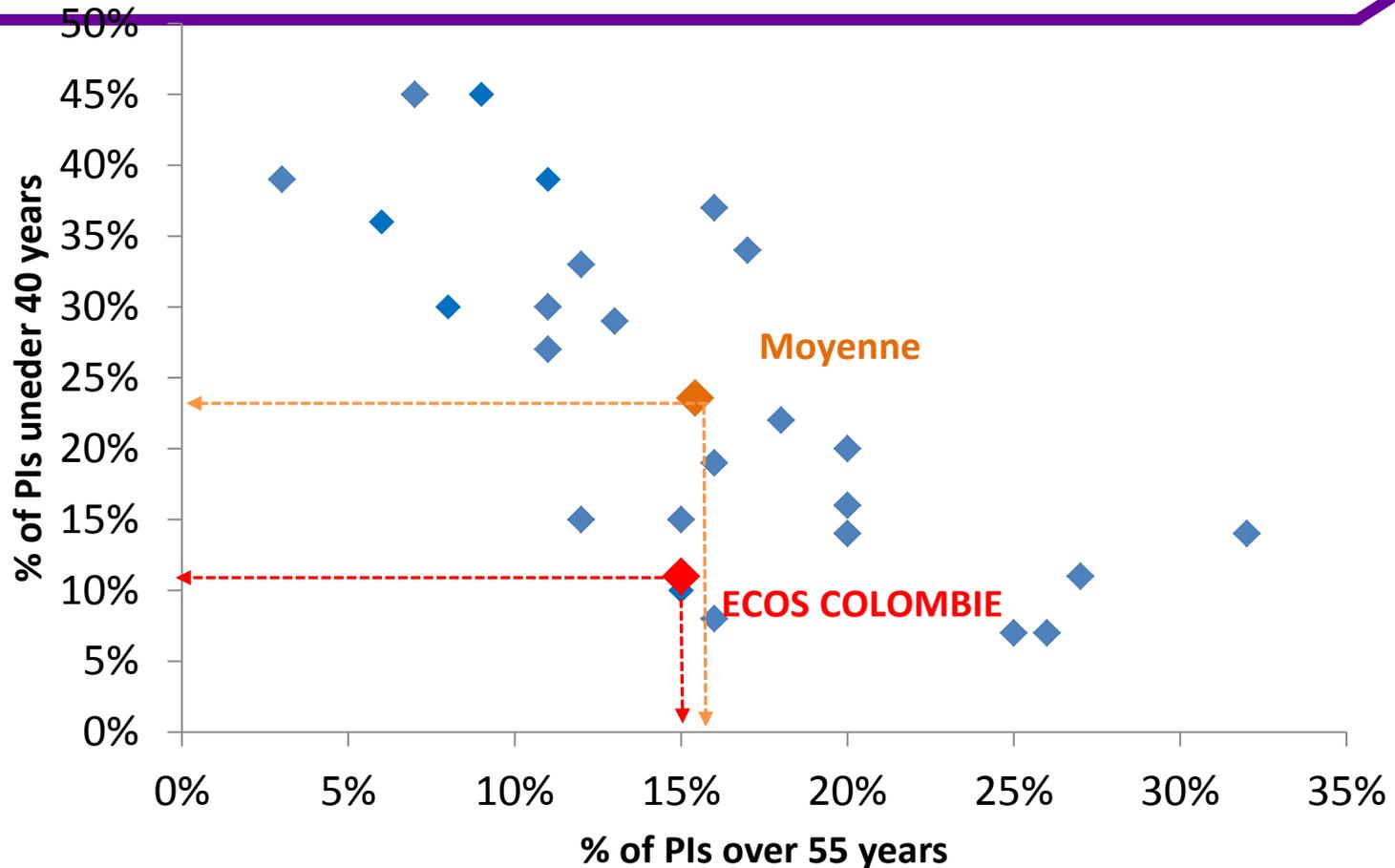
PI's employers



Laboratories authorities



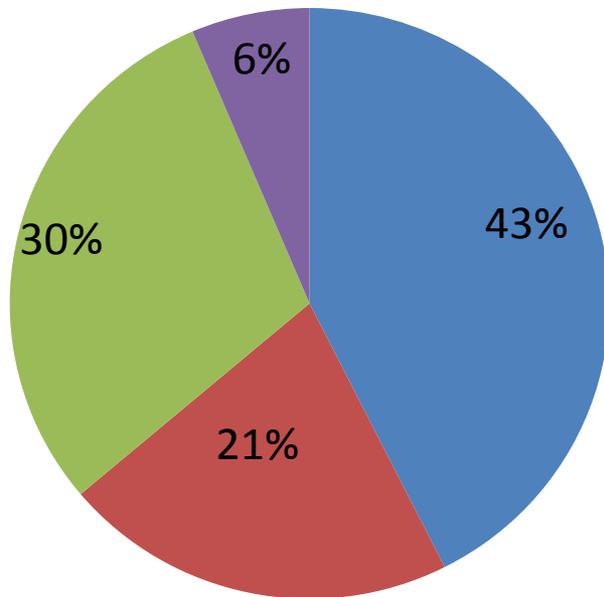
AGE OF PRINCIPAL INVESTIGATORS (PI) (COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)



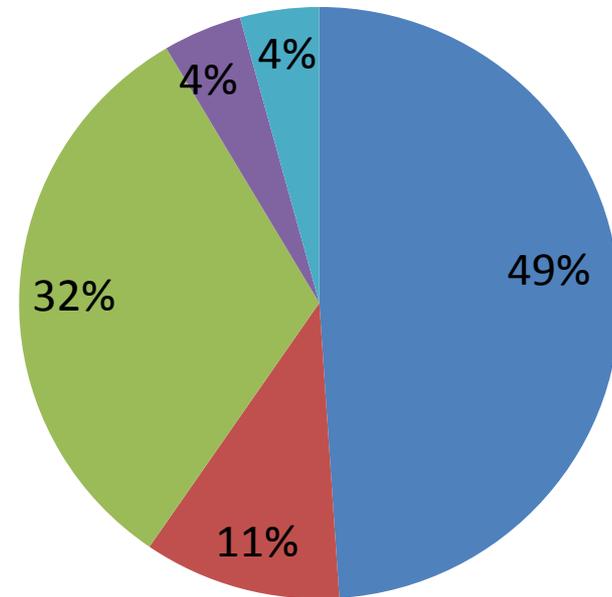
PIs under 40 years : 11% vs 23% mean
PIs over 55 years : 15% vs 15% mean
74% of the PIs are between 40 and 55 years

FRENCH PIS (PRINCIPAL INVESTIGATORS) : STATUS

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



Current professional status



■ Full professor

■ Assistant professor

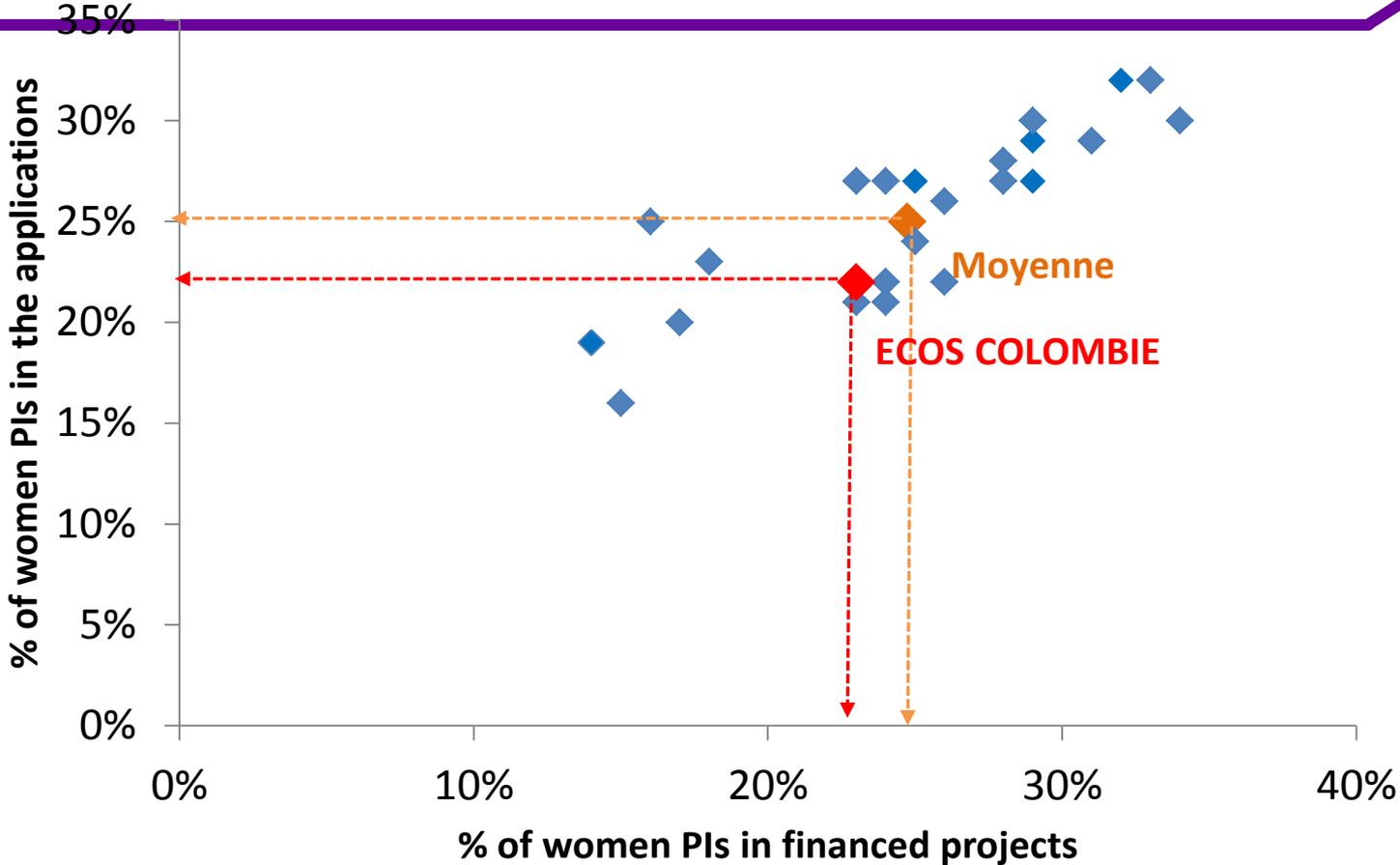
■ Senior researcher

■ Junior researcher

■ Other

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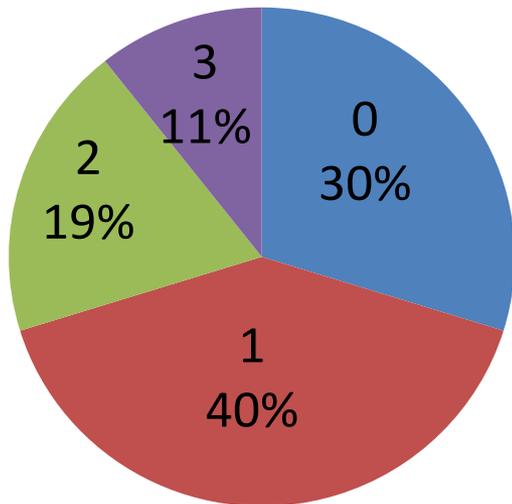
IMPLICATION OF WOMEN (FRANCE) (COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)



% of women PIs in the applications : 22% vs 25% mean
% of women PIs in the selected projects : 23% vs 25% mean

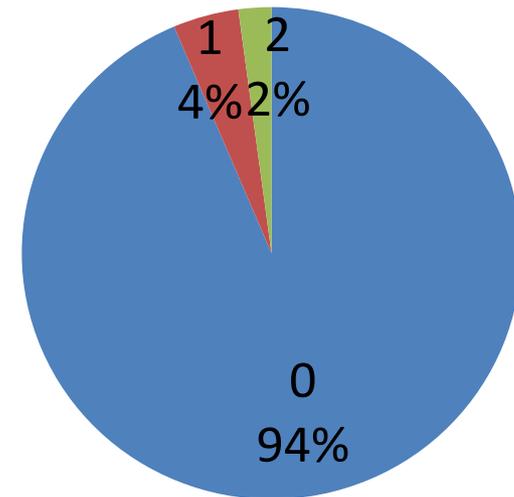
PARTICIPATION OF FRENCH YOUNG RESEARCHERS

Number of PhD students



70% of projects involve at least one PhD student

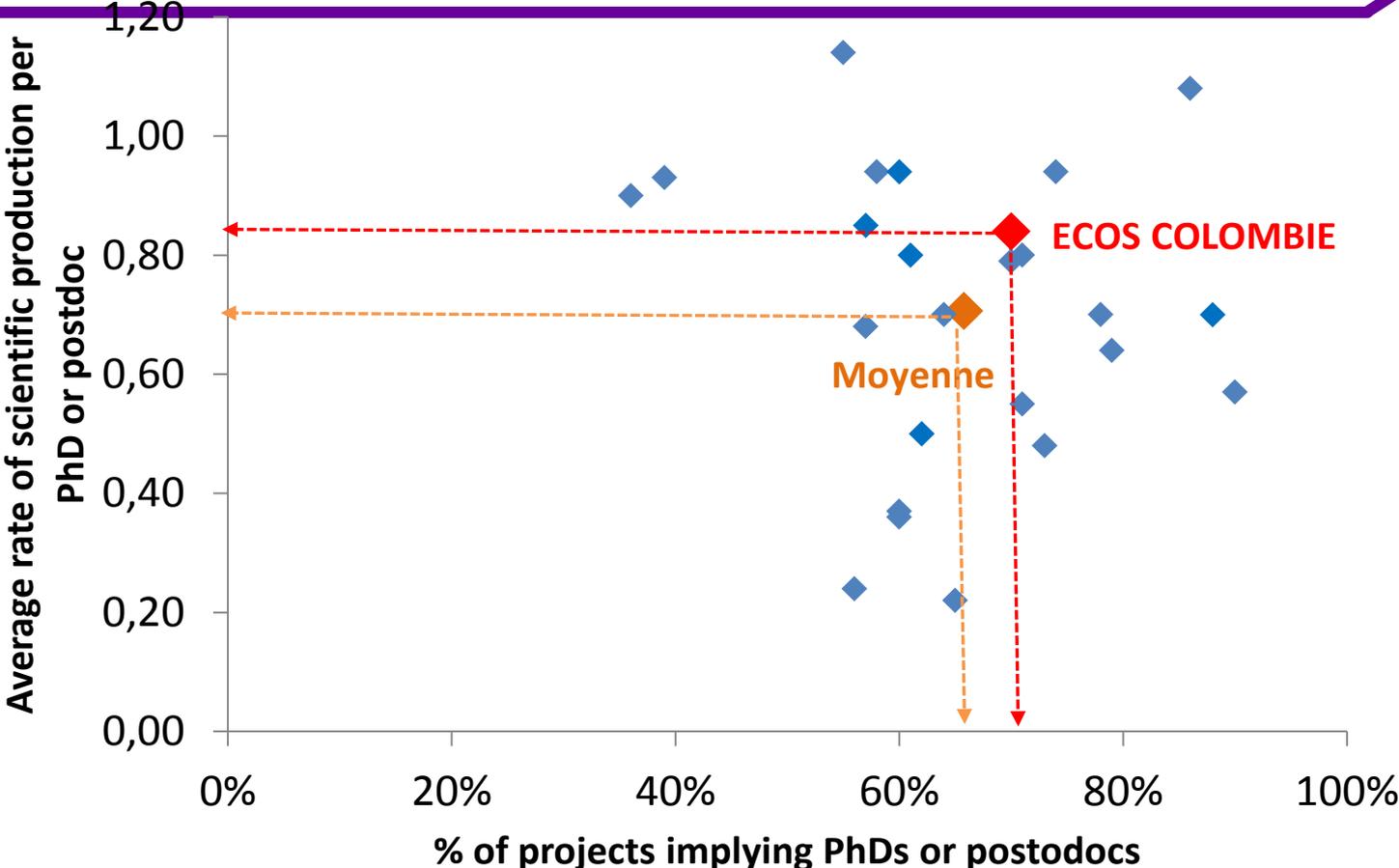
Number of post-doctoral researchers



6% of projects involve at least one post-doctoral researcher

IMPLICATION OF PhDs

(COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)

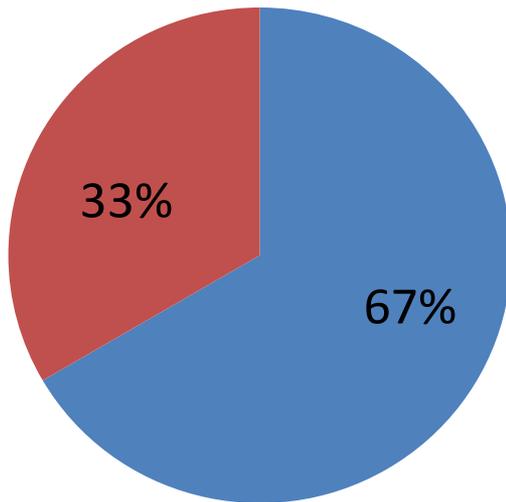


% of projects involving PhDs : 70% vs 65% mean
Average rate of scientific production per PhD : 0,84 vs 0,70 mean

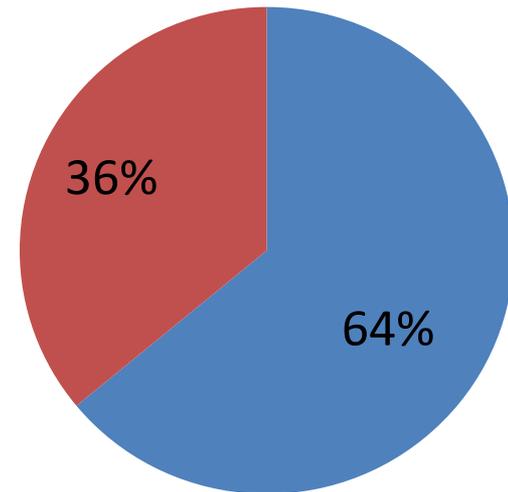
Mobility

MOBILITY : GENDER DISTRIBUTION

France → Colombia



Colombia → France

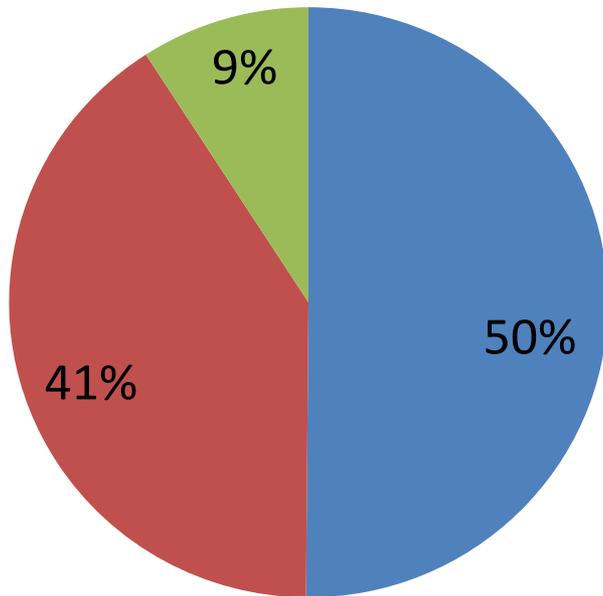


■ Men ■ Women

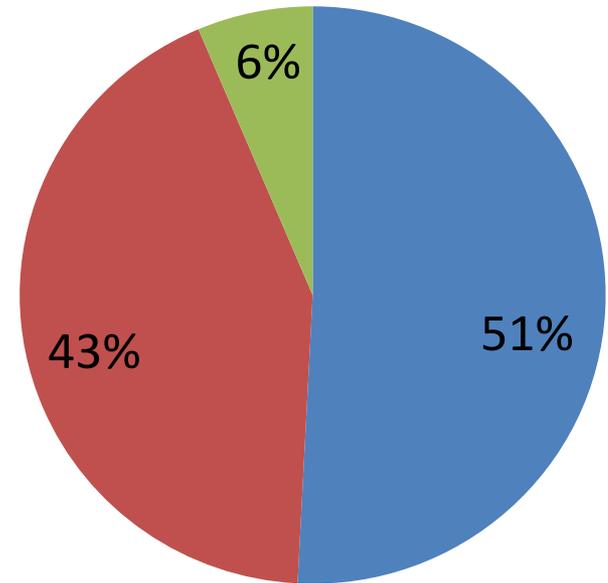
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MOBILITY : AGE

France → Colombia



Colombia → France

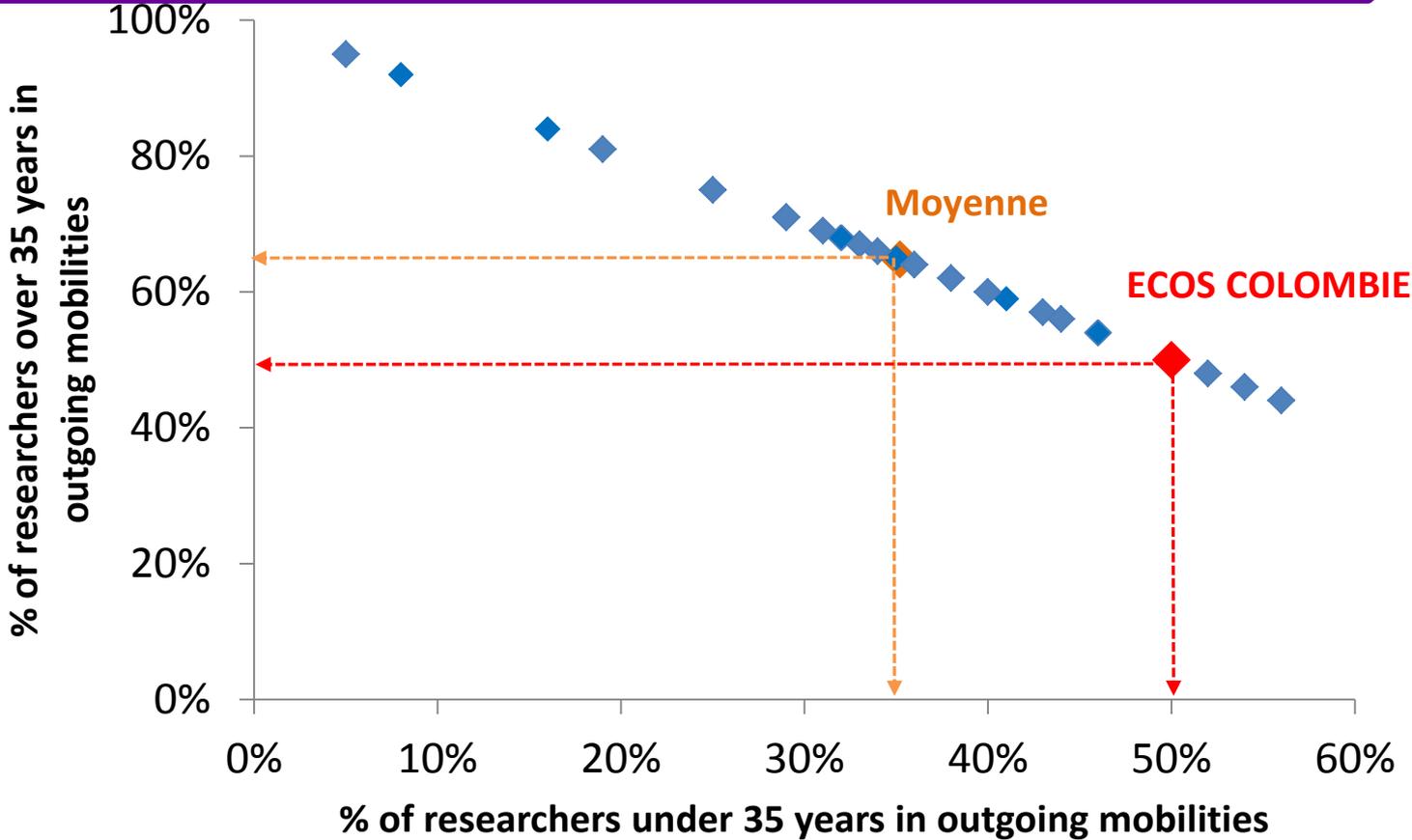


- <35 years
- between 35 and 55 years
- >55 years

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MOBILITY FRANCE – COLOMBIA

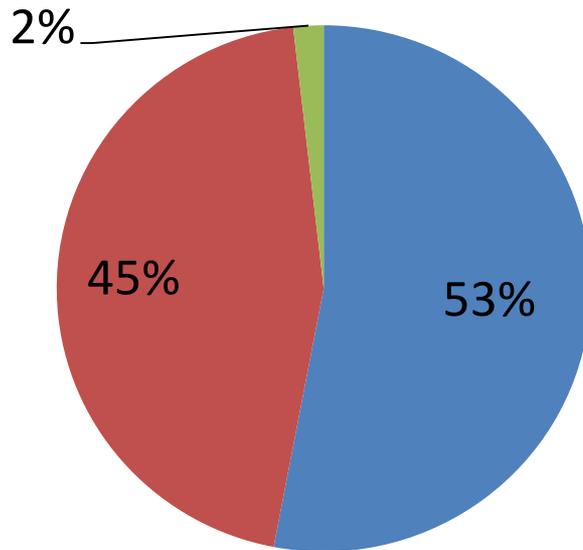
(COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)



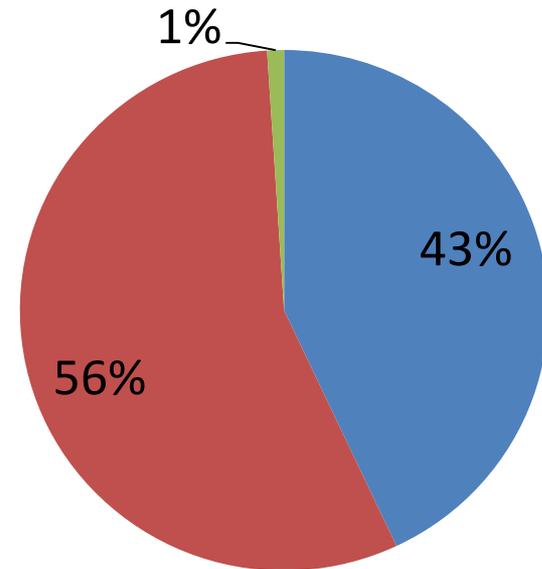
% of french young researchers in outgoing mobilities : 50% vs 35% mean

MOBILITY : DURATION

France → Colombia



Colombia → France

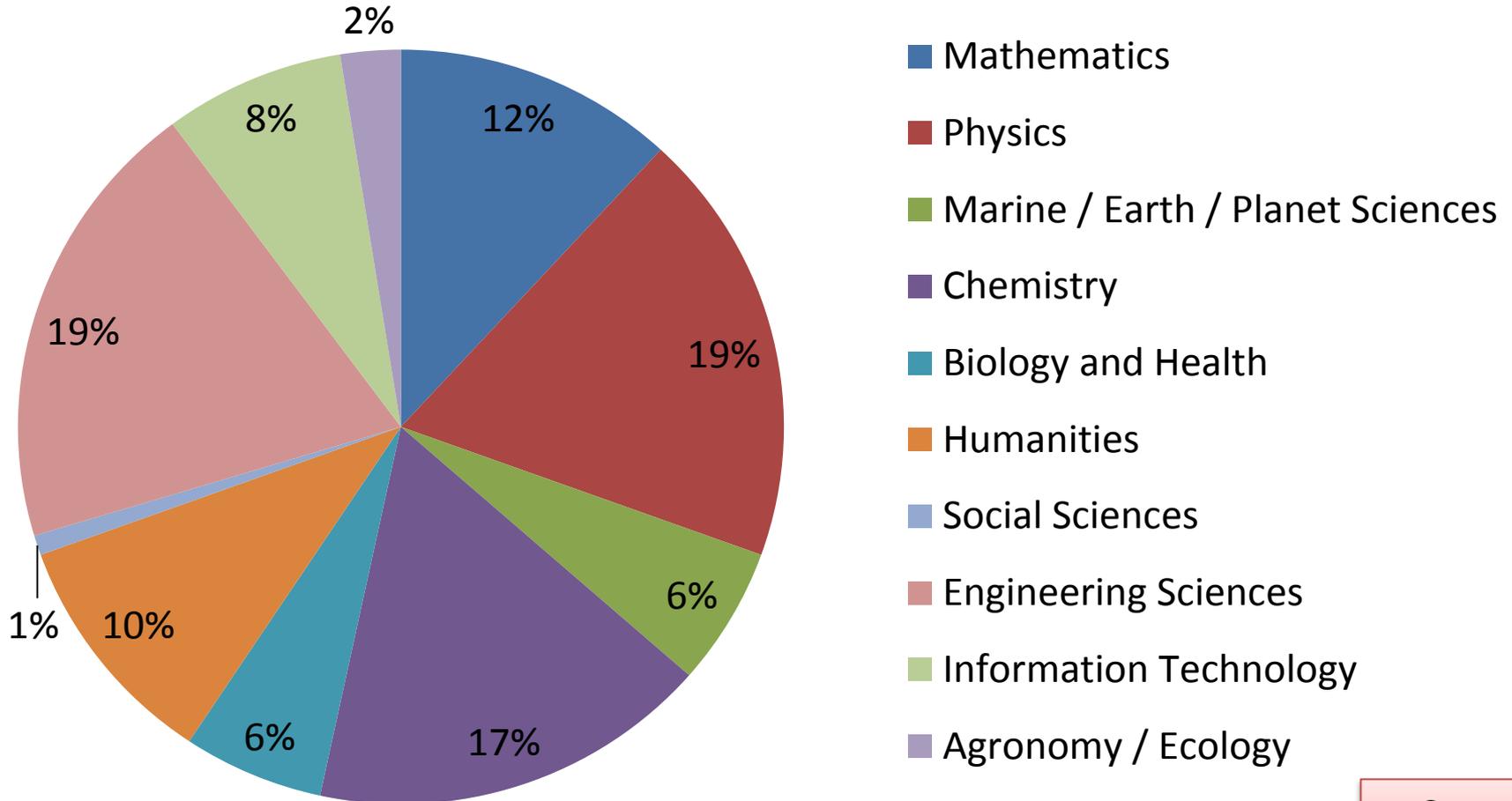


- < 15 days
- between 15 days and 3 months
- > 3 months

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Scientific production

SCIENTIFIC OUTPUT (1/2)



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SCIENTIFIC OUTPUT (2/2)

76% of funded projects led to one copublication at least

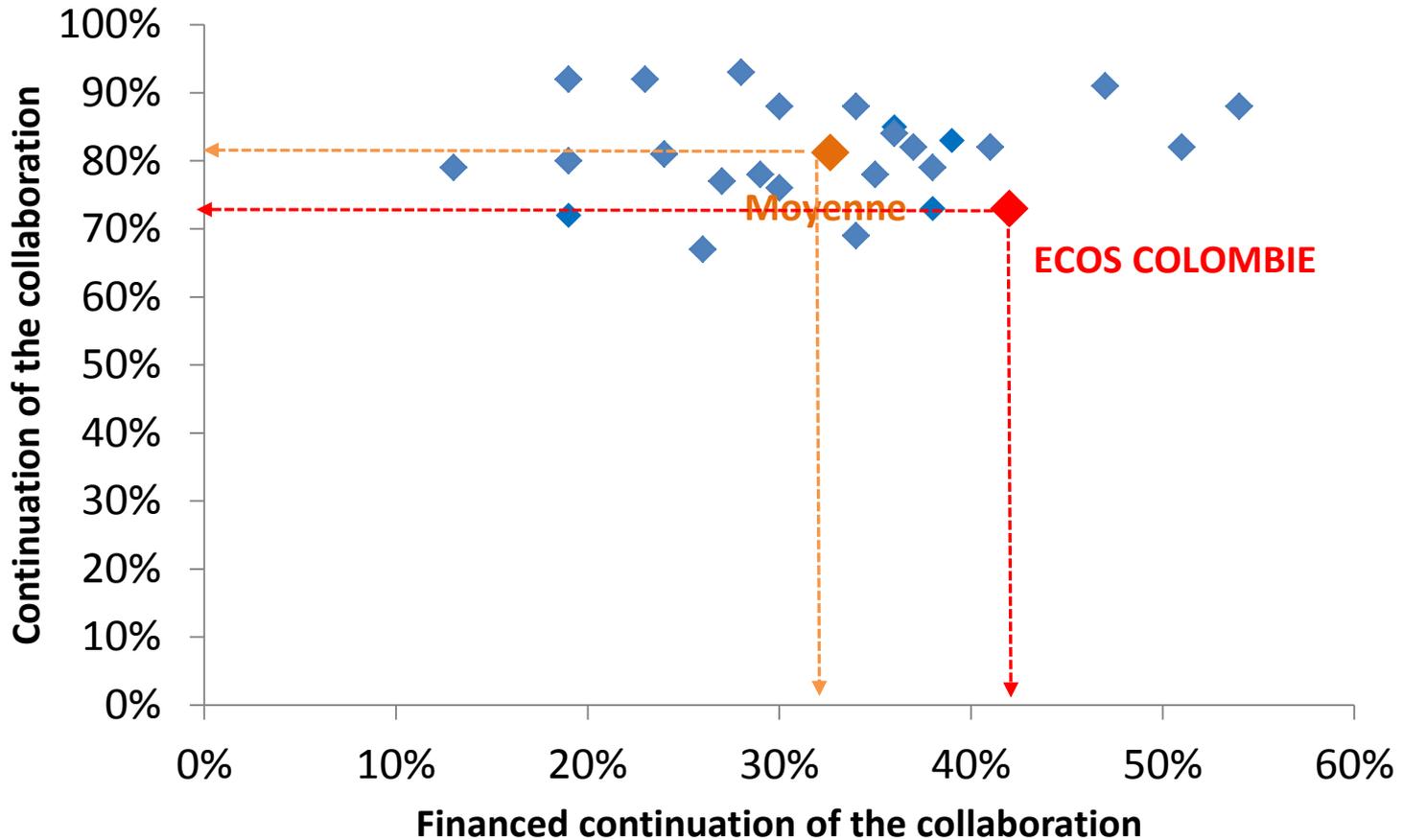
84% average copublication rate by PhD students or PostDoc

	Number of funded projects by thematic area	Ratio of funded projects by thematic area	Number of copublications	Ratio of copublications by thematic area	Ratio of funded projects by thematic area that led to one copublication at least	Ratio of copublication by project
Mathematics	5	12%	14	12%	40%	2,8
Physics	5	12%	22	19%	80%	4,4
Marine / Earth / Planet Sciences	1	2%	7	6%	200%	7,0
Chemistry	6	15%	20	17%	83%	3,3
Biology and Health	8	20%	7	6%	38%	0,9
Humanities	2	5%	12	10%	100%	6,0
Social Sciences	1	2%	1	1%	100%	1,0
Engineering Sciences	8	20%	23	19%	88%	2,9
Information Technology	4	10%	9	8%	100%	2,3
Agronomy / Ecology	1	2%	3	3%	100%	3,0
TOTAL	41	100%	118	100%	76%	2,9

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What happens after a ECOS Nord Colombie Project ?

CONTINUATION OF THE COLLABORATION (1/4) (COMPARISON BETWEEN 26 DIFFERENT BILATERAL PROGRAMMES)



Continuation of the collaboration : 73% vs 81% mean

Continuation of the collaboration with other sources of subvention : 42% vs 33% mean

CONTINUATION OF THE COLLABORATION (2/4)

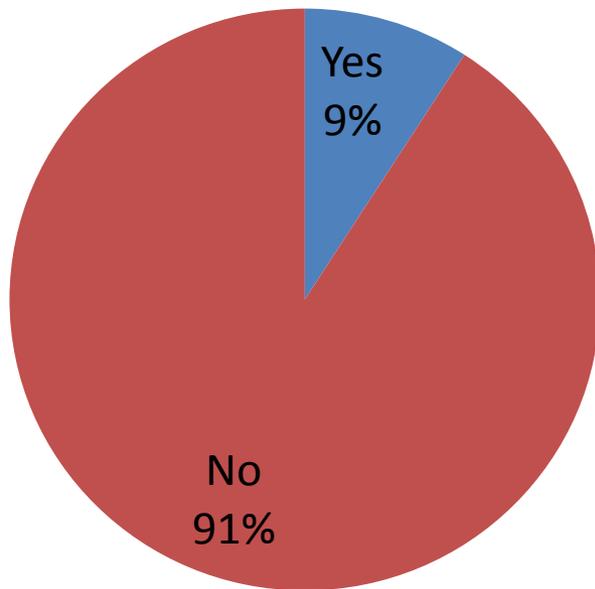
73% of the collaborations continued after the ECOS

Which activities?	
Co-publications	78%
Collaborative research	66%
Researchers mobility	59%
PhD mobility	47%
Joint supervision of PhD thesis	44%
Joint participation to conferences	41%
Co-organisation of scientific events	25%
Pedagogical activities	6%
Others	3%

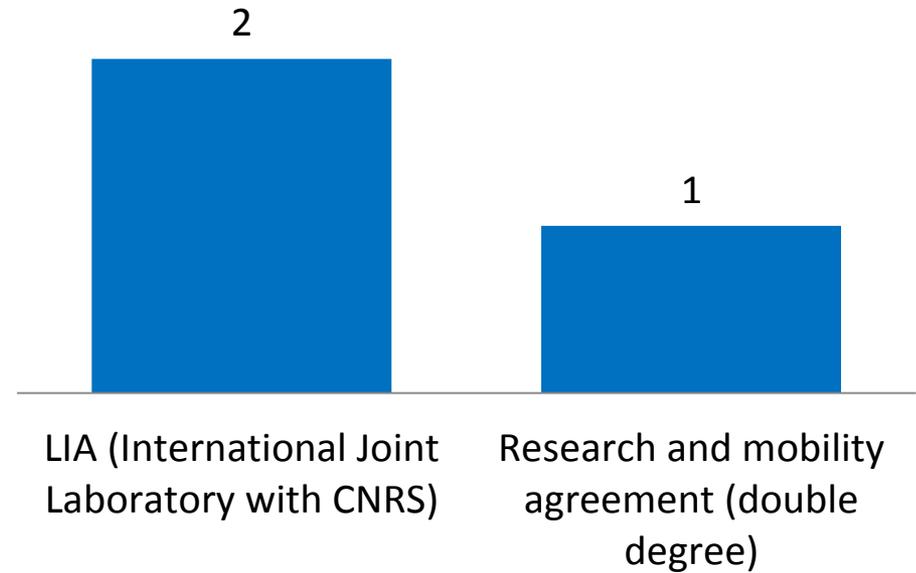
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CONTINUATION OF THE COLLABORATION (3/4)

Has the program ECOS Nord led to the set-up of joint structures?



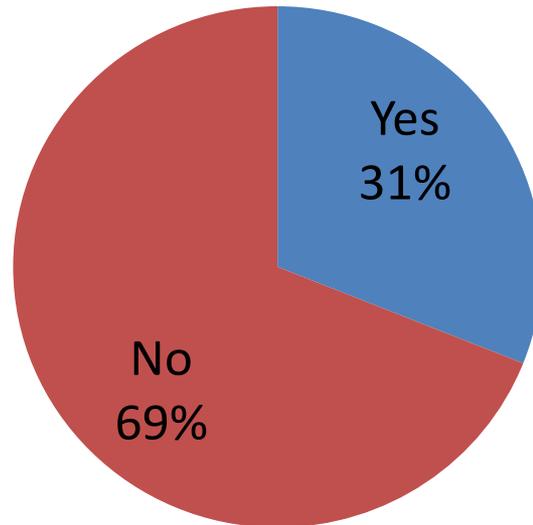
Type of structures



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CONTINUATION OF THE COLLABORATION (4/4)

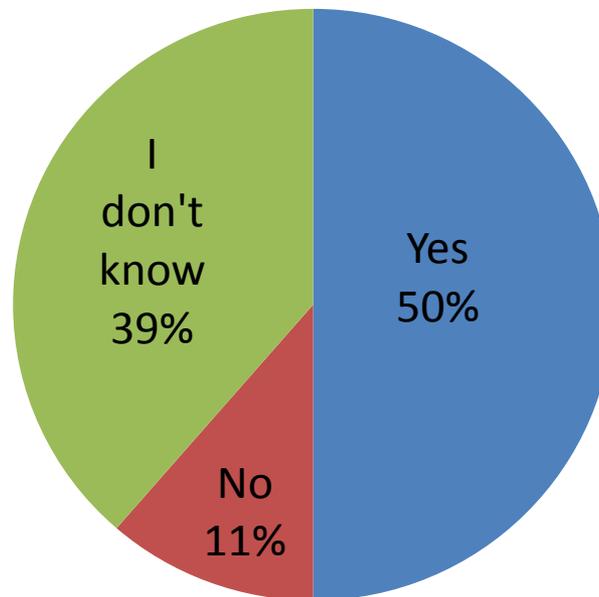
**Has the new French-Colombian
collaboration involved new partners?**



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IMPACT ON YOUNG RESEARCHERS' CAREER (1/2)

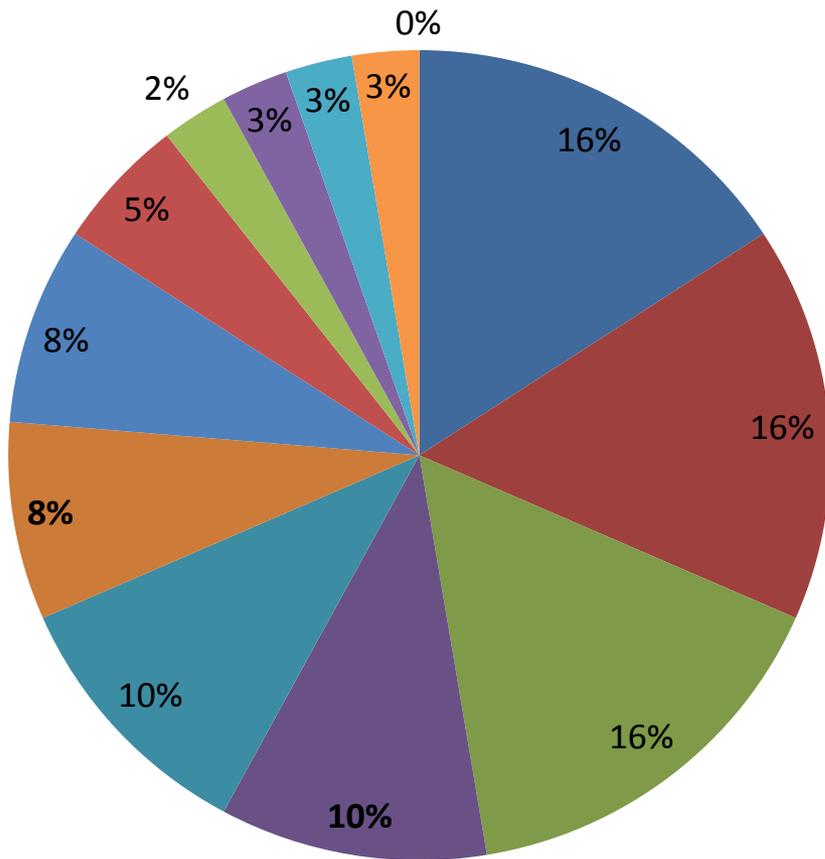
% of young researchers whose career was impacted by the ECOS program



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IMPACT ON YOUNG RESEARCHERS' CAREER (2/2)

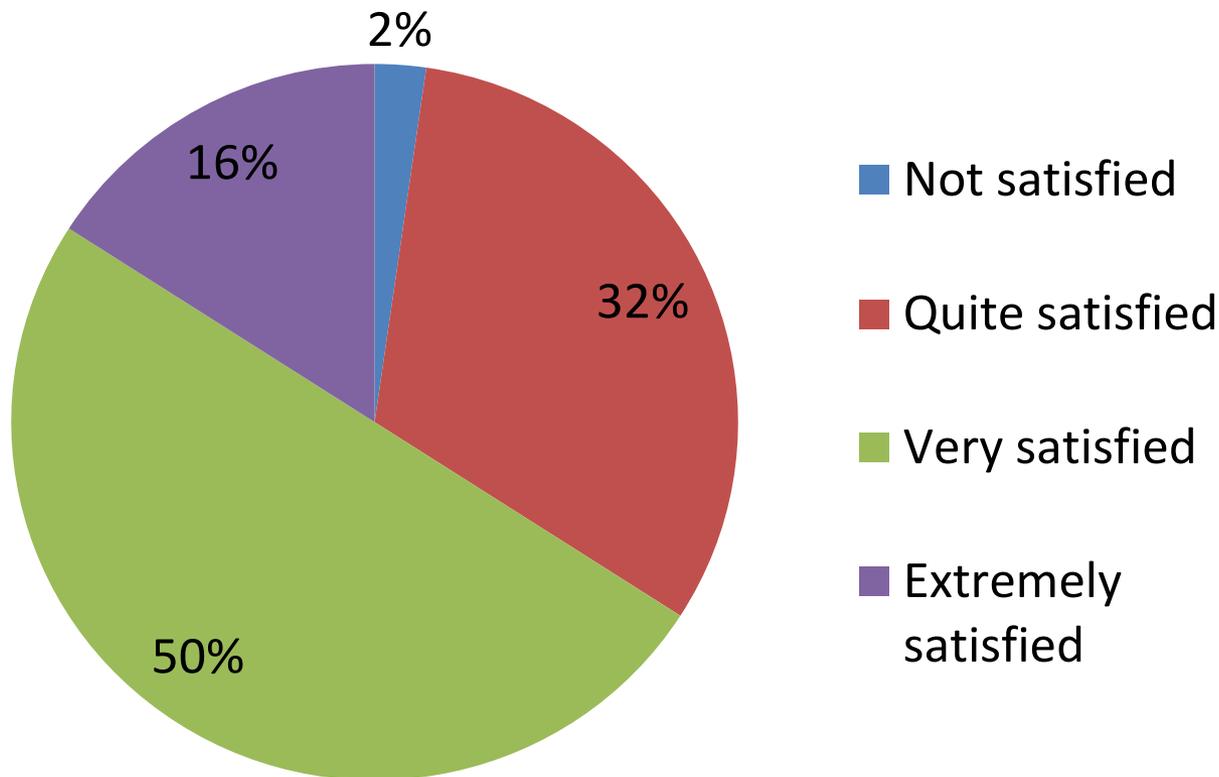
Type of impacts



- Teacher-researcher as civil servant - In Colombia
- Employed in a private company in link with the field of Higher Education- Research-Innovation - In France
- Other
- Post PhD/contractual researcher or teacher - In France
- Teacher-researcher as civil servant - In another country
- Post PhD/contractual researcher or teacher - In another country
- Teacher-researcher as civil servant - In France
- Employed in a private company in link with the field of Higher Education- Research-Innovation - In Colombia
- Post PhD/contractual researcher or teacher - In Colombia
- Researcher as civil servant in a public research institution - In France
- Employed in a private company in link with the field of Higher Education- Research-Innovation - In another country
- Researcher as civil servant in a public research institution - In Colombia
- Researcher as civil servant in a public research institution - In another country

GENERAL OPINION OF FRENCH PIS ON THE PROGRAMME

98% of french principal investigators are satisfied

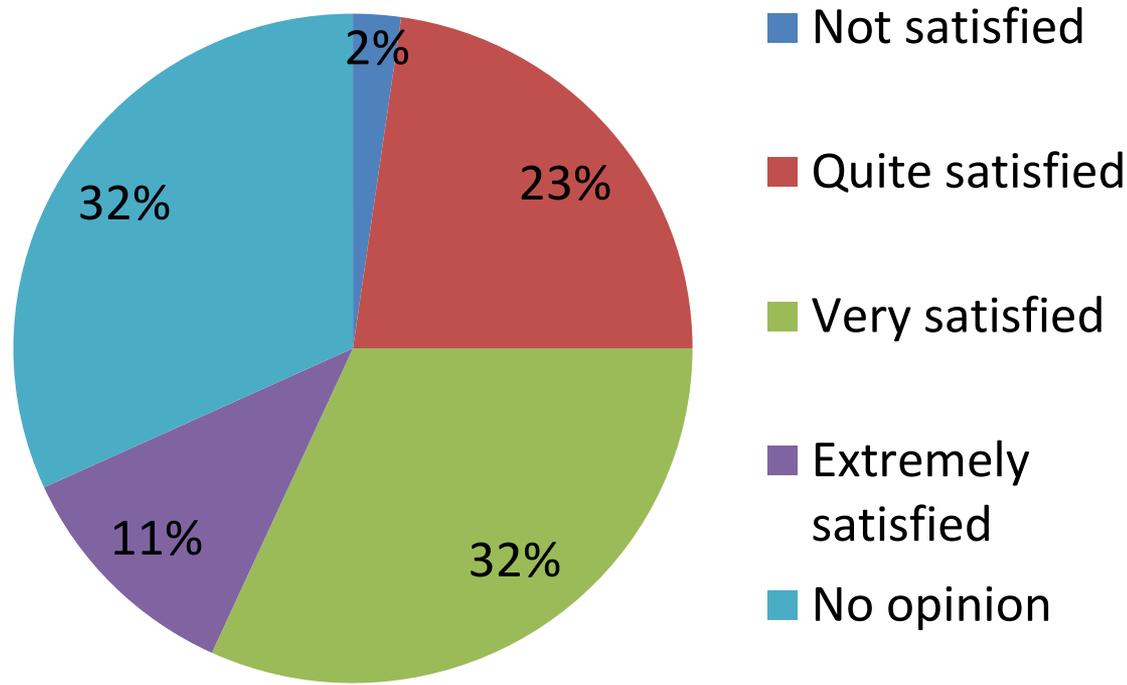


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OPINION OF FRENCH PIS ABOUT FRENCH EMBASSY HELP

66% of French principal investigators are satisfied

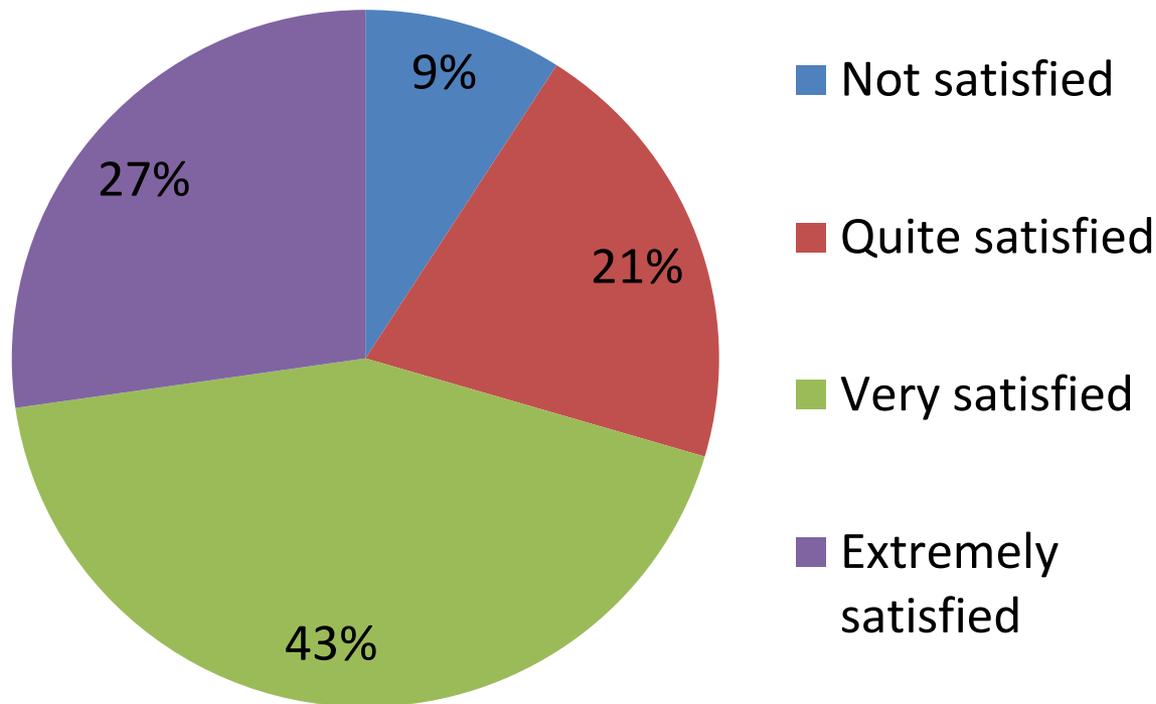
32% of French principal investigators have no opinion



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OPINION OF FRENCH PIS ABOUT ECOS NORD COMITEE HELP

91% of French principal investigators are satisfied



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GENERAL OPINION OF FRENCH PIS ON THE PROGRAMME (+)

Strengths of this program	%
Allows the mobility of the researchers	83%
Allows the training of the young researchers	72%
Allows an international scientific collaboration	70%
Allows exchanges which allow a scientific production	64%
Simplicity of the application process	60%
Sufficiently long duration of the projects	38%
Allows a knowledge of the country partner	36%
Financial means sufficient for the expenditure of mobility	36%
Easy implementation (administrative flexibility)	34%
Duration of mobilities adapted to the needs	28%
Good scientific appreciation compared to the financial investment	23%
Is used as starting for raising other funds	11%
Transparency of the methods for selecting the projects	9%
Other	6%

Survey data

GENERAL OPINION OF FRENCH PIS ON THE PROGRAMME (-)

Weaknesses of this program	%
No funding of the operation and capital expenditures	40%
Lack of transparency on the methods of projects selection	30%
Difficult perpetuation of collaboration	30%
Insufficient communication on the evaluation's results	26%
Financial means insufficient for the expenditure of mobility (per diem)	19%
Other	19%
Heaviness of the process of applications	17%
Too short duration of the projects	13%
Too short duration of mobilities	11%
Too low number of mobilities	11%
Financial means insufficient for the expenditure of mobility (flights)	9%
Administrative heaviness of the missions management	6%
Too long duration of mobilities	0%

Survey data

PRELIMINARY CONCLUSIONS

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

- **Scientific domains of projects are well balanced between applications and funded projects**
- **Good PHD students involvement in the projects (70 %)**
- **Mainly senior Principal Investigators (89 % > 40 years old)**
- **Half of the mobilities are done by young researchers**
- **Good scientific output (2,9 copublications by project)**
- **Only 37% of copublications include at least 1 PHD or PostDoc**
- **Facility for obtaining financial support for further scientific collaborations (42 %)**

PRELIMINARY RECOMMENDATIONS

- **Promote NEW collaborations (53% of French PI have already collaborated before ECOS Nord Colombie project (including 34% with the same program)).**
- **Be careful that the high success rate (47% in 2016) doesn't lead to select some low quality projects**
- **Promote women applications (only 22% of applicants are women)**
- **Promote young french PIs (11 % of young researchers)**
- **Improve ECOS Nord committee feedback toward candidates**

Contacts

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