

FRANCE – QUEBEC

Scientific impact of the program Samuel de Champlain (Research) (2017-2023)

MESR-DAEI / MEAE

2024

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



GENERAL PRESENTATION OF THE PROGRAM

Creation: 2017

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

Total budget Research and Formation (France + Quebec): around 380 000 € / year

- >> including budget from the French part : around 190 000 €/year
- >> including budget from the Quebec part : around 190 000 €/year

Average budget per project Research Program (France) : around 16 000 €/year

Average budget per project Research Program (France + Quebec) : around 32 000 €/year

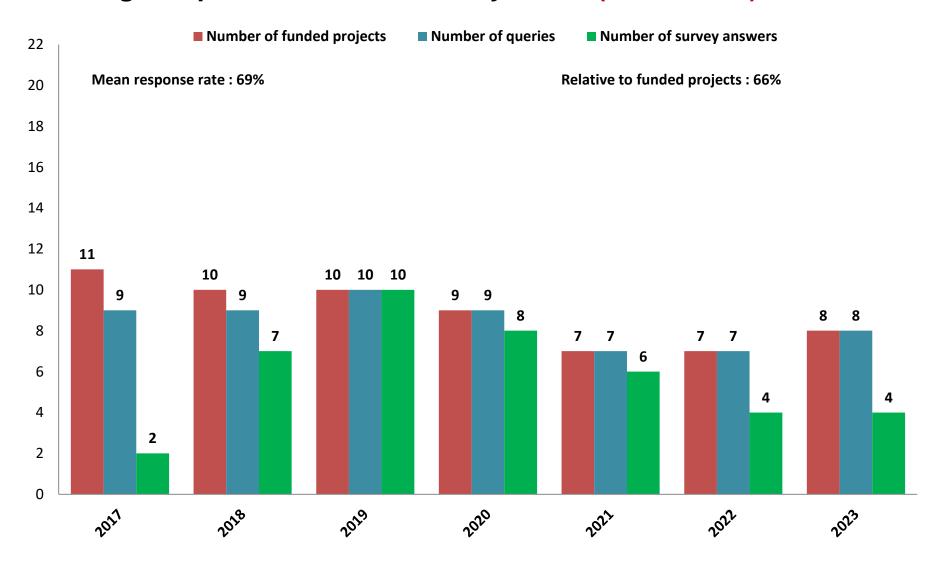
Number of new funded projects per year : around 9

From 2017-2023 : 208 applications submitted 62 projects funded



ANSWERS TO THE SURVEY

Average response rate to the survey: 69 % (41 answers)



62 funded projects between 2017 and 2023, 59 valid email adresses



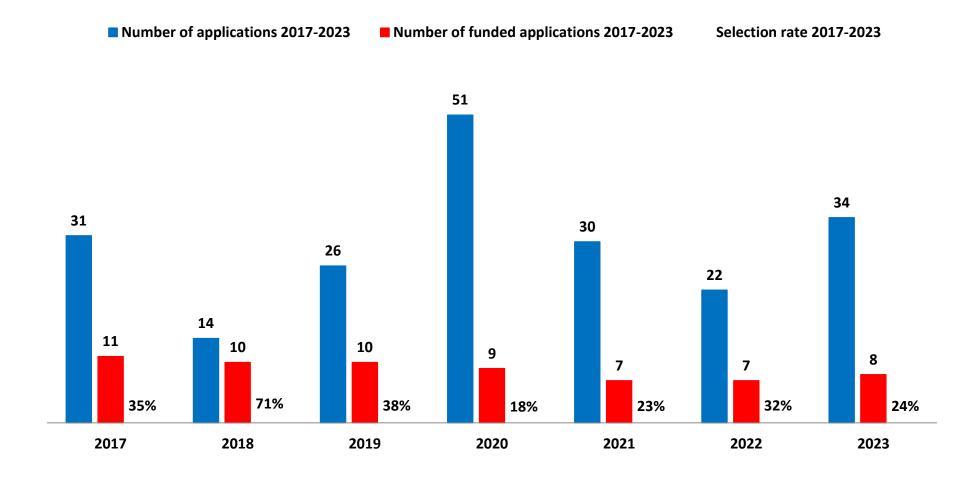
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2017-2023 Key Points



NUMBER OF APPLICATIONS AND SELECTION RATE

Average selection rate from 2017-2023: 30%

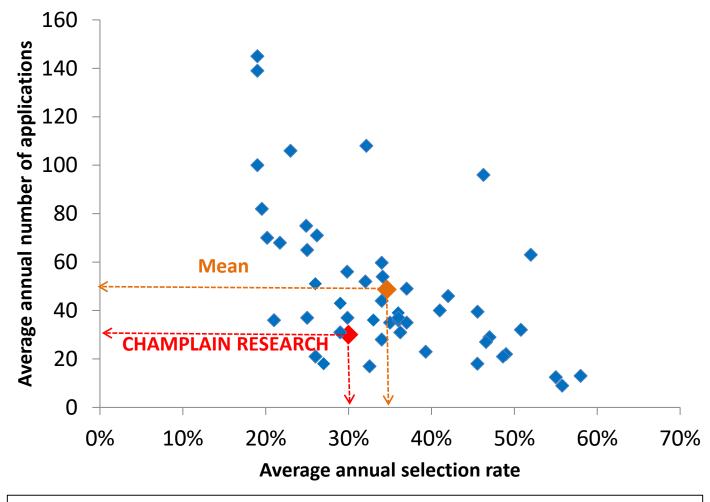


Relatively stable number of applications



NUMBER OF APPLICATIONS VS SELECTION RATE

(COMPARISON BETWEEN 50 DIFFERENT BILATERAL PROGRAMS)



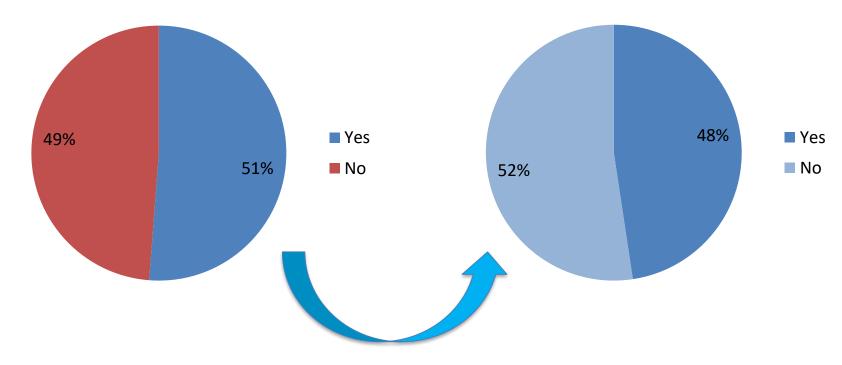
Average annual selection rate for 2017-2023 : 30% vs 35% mean Average annual number of applications 2017-2023 : 30 vs 49 mean



BEFORE THE CHAMPLAIN RESEARCH PROJECT (1/2)



If yes, was it with the same partner?



Data from 41 responses

Data from 21 responses



BEFORE THE CHAMPLAIN RESEARCH PROJECT (2/2)

With which scientific collaboration program ?		
Samuel de Champlain Program Research	6%	
French Government Grant	6%	
International Emerging Action du CNRS (IEA ex-PICS)	6%	
Other	83%	

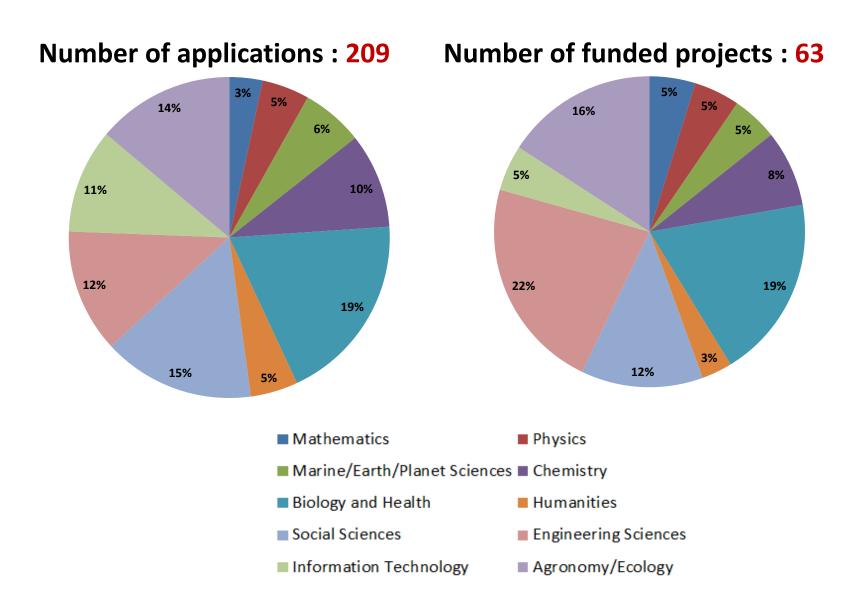
Other programs such as FP7-PEOPLE, Funding Canada Environment, Program IDEX Grenoble...

Plus 23 previous cooperations based on other exchanges (scientific coproduction, meetings, joint PhD...)

Data from 17 responses



SCIENTIFIC DOMAINS OF PROJECTS (2017-2023)





SCIENTIFIC DOMAINS: EVOLUTION 2017-2023

Percentage of applications filed by scientific domain each year compared to all

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DS1: Mathematics

DS2: Physics

DS3: Marine, Earth, Planet sciences

DS4 : Chemistry

DS5: Biology and Health

DS6: Humanities

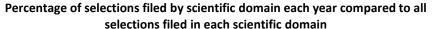
DS7: Social sciences

DS8 : Engeneering sciences

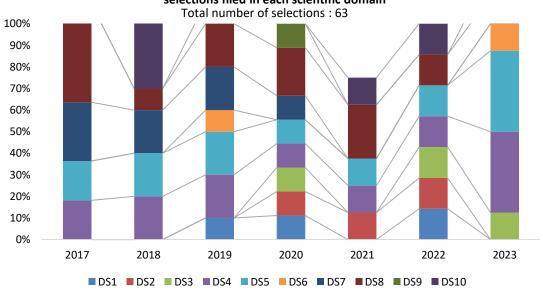
DS9: Information technology

DS10: Agronomy/Ecology

applications filed in each scientific domain Total number of applications: 209 100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% 2017 2018 2019 2020 2021 2022 2023



■DS1 ■DS2 ■DS3 ■DS4 ■DS5 ■DS8 ■DS9 ■DS10

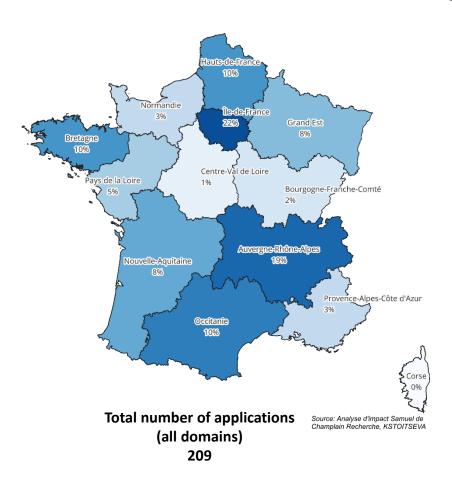


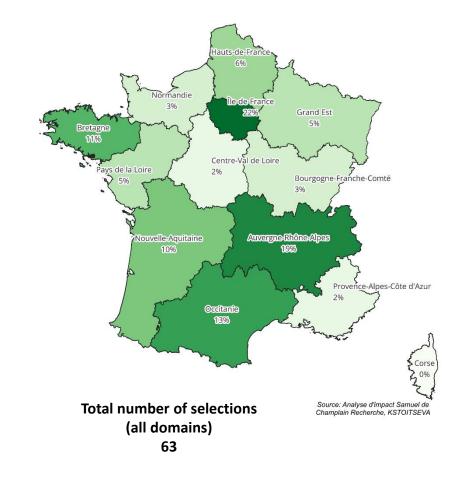


REGIONAL DISTRIBUTION OF SELECTED PROJECTS 2017-2023

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Program CHAMPLAIN RESEARCH Regional percentages of applications and selections 2017-2023





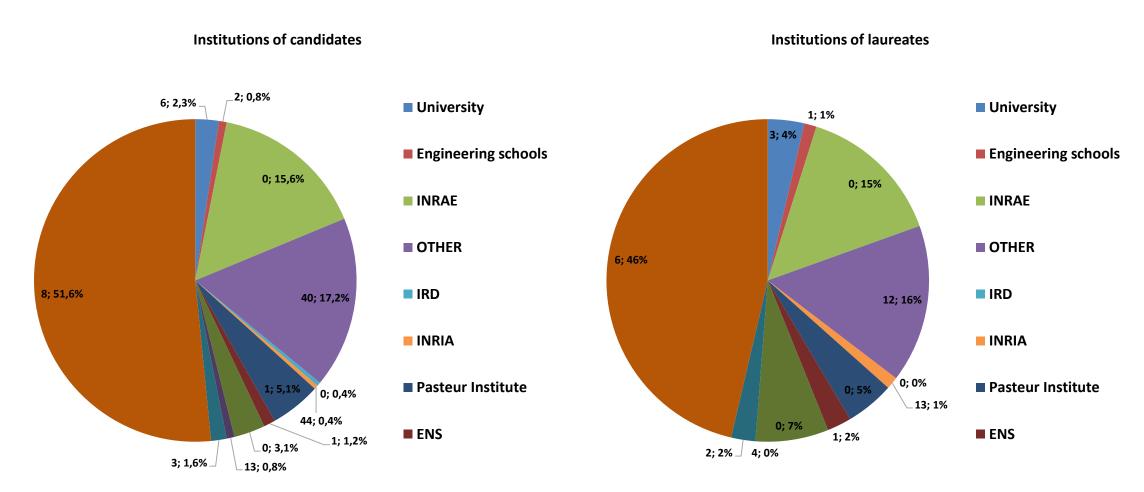
The region Ile de France is the main contributor both for applications and selections followed by Auvergne-Rhône-Alpes



FRENCH PARTICIPATING INSTITUTIONS

(DATA FROM THE COMMITTEE)

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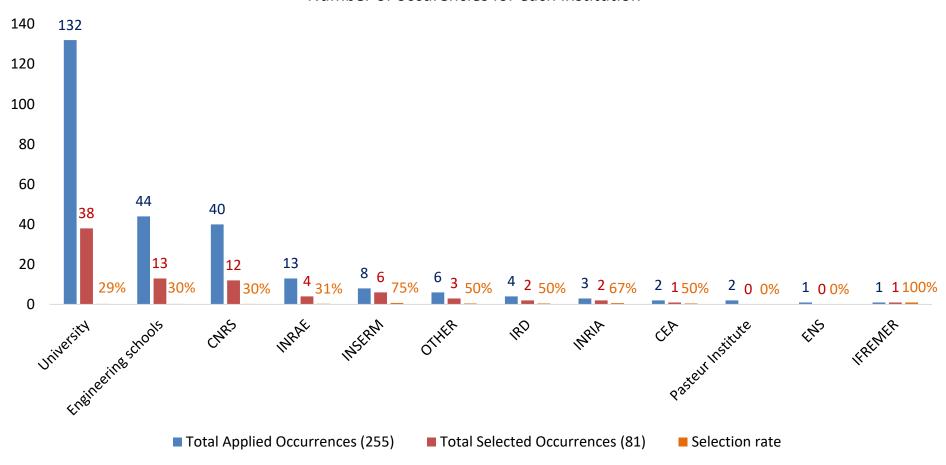
N=209



FRENCH PARTICIPATING INSTITUTIONS

(DATA FROM THE COMMITTEE)

Number of occurencies for each institution





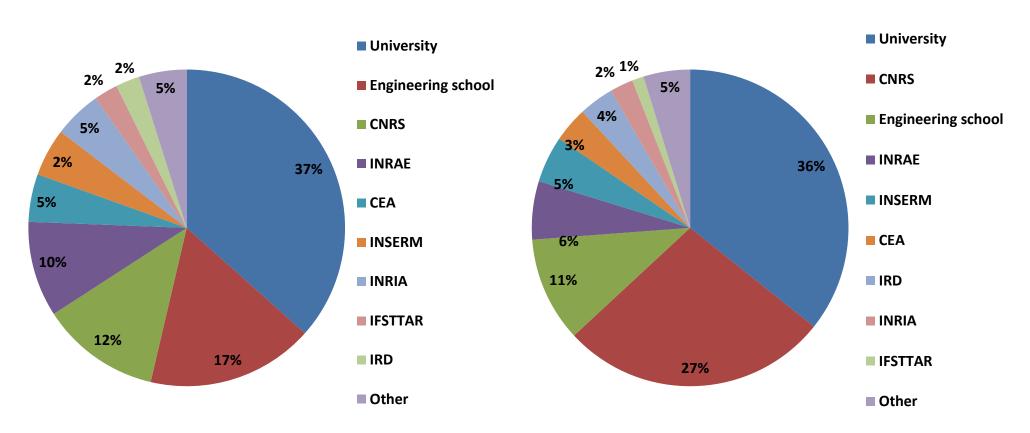
FRENCH PARTICIPATING INSTITUTIONS

(DATA FROM THE SURVEY)

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PI's employers

Laboratories authorities



Data from 41 answers

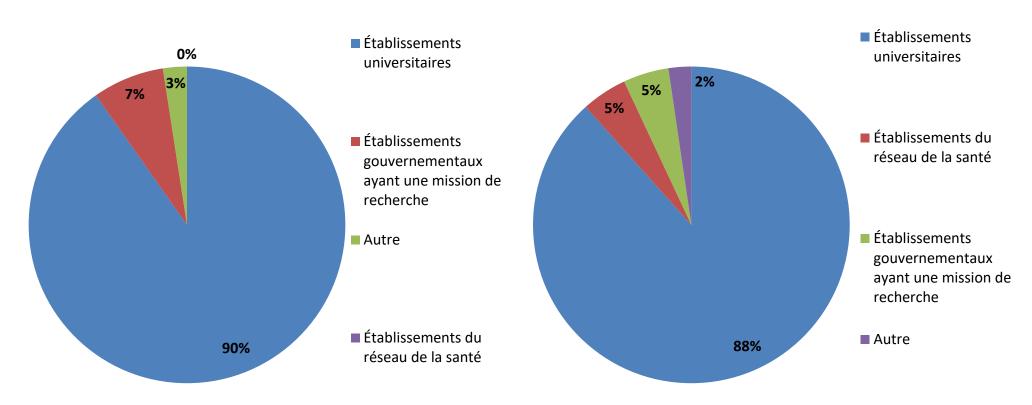


QUEBEC PARTICIPATING INSTITUTIONS

(DATA FROM THE SURVEY)

PI's employers

Laboratories authorities



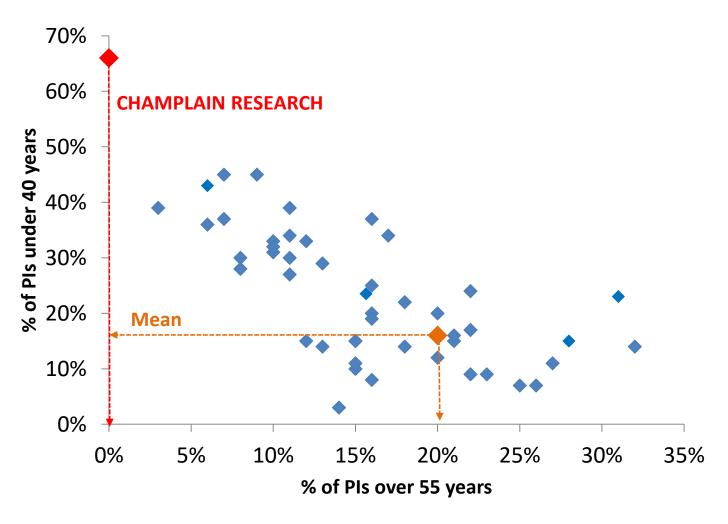
Data from 41 answers



AGE OF FRENCH PRINCIPAL INVESTIGATORS (PI) 2017-2023

(COMPARISON BETWEEN 50 DIFFERENT BILATERAL PROGRAMS)





Laureates under 40 years : 66% vs 23% mean

Laureates over 55 years : 0% vs 16% mean

Laureates between 40 et 55 years : 34%



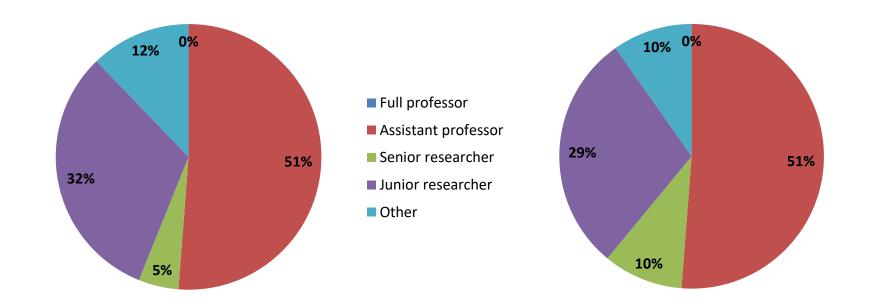
FRENCH PIS (PRINCIPAL INVESTIGATORS): STATUS

2017-2023

(DATA FROM THE SURVEY)

Previous professional status (at the beginning of the project)

Current professional status



Data from 41 answers



QUEBEC PIS (PRINCIPAL INVESTIGATORS): STATUS

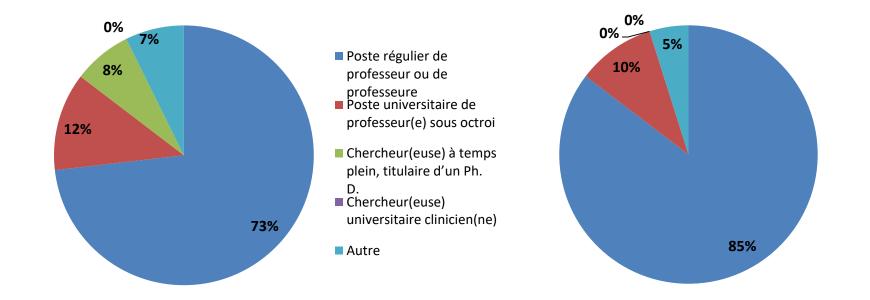
2017-2023

(DATA FROM THE SURVEY)

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Previous professional status (at the beginning of the project)

Current professional status

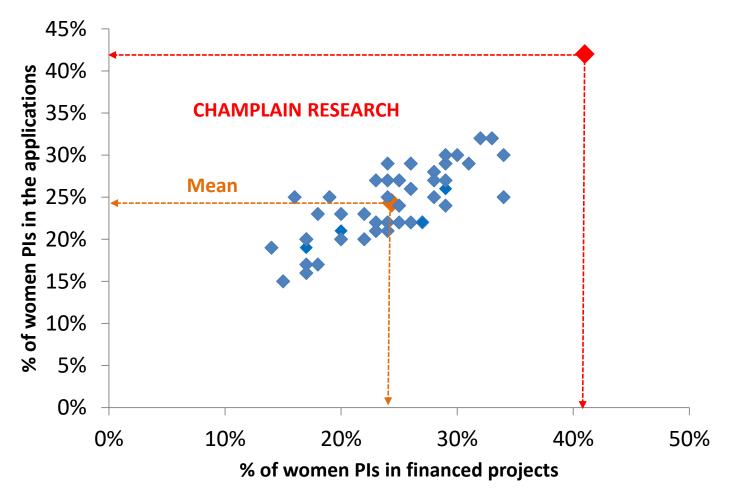


Data from 41 answers

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IMPLICATION OF WOMEN (FRANCE) 2017-2023

(COMPARISON BETWEEN 50 DIFFERENT BILATERAL PROGRAMS)



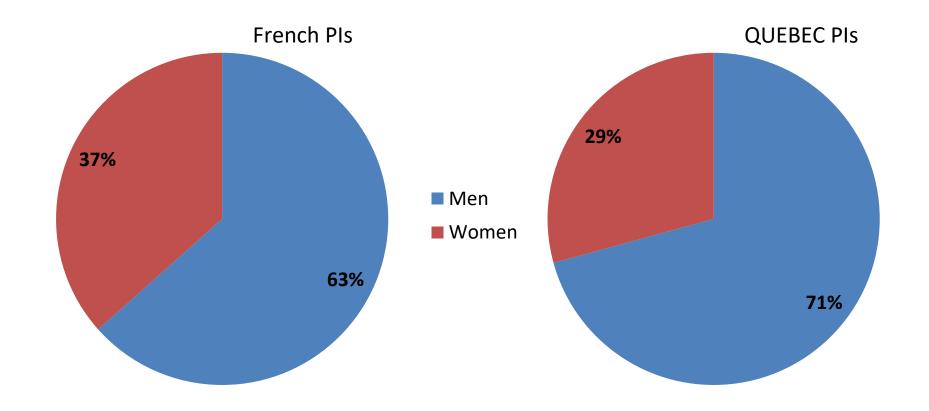
% of women PIs candidates : 42% vs 24% mean % of women PIs laureates : 41% vs 24% mean



IMPLICATION OF WOMEN 2017-2023

(DATA FROM THE SURVEY)

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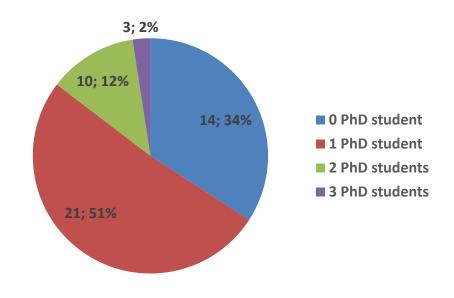
Data from 41 responses



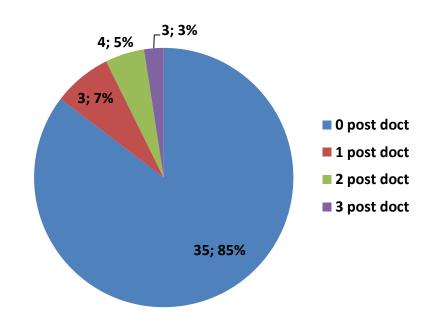
PARTICIPATION OF FRENCH YOUNG RESEARCHERS 2017-2023

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Number of French PhD students



Number of French postdoctoral researchers



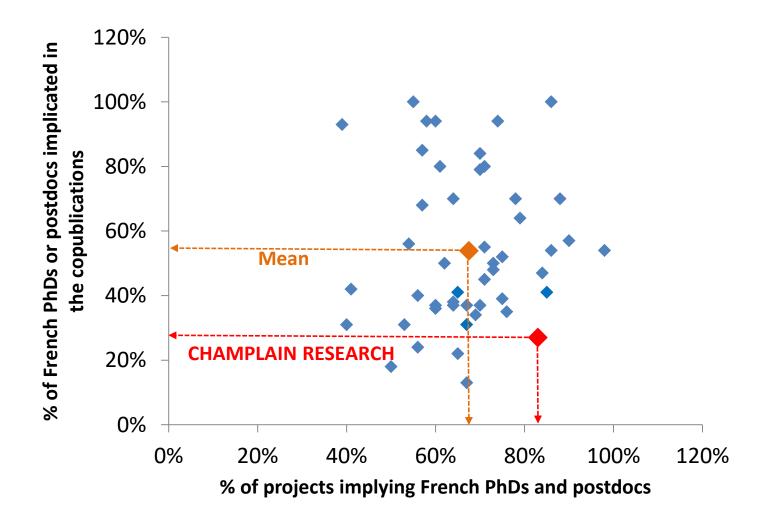
66% of projects involve at least one French PhD student

15% of projects involve at least one French post-doctoral researcher

Data from 41 responses



IMPLICATION OF FRENCH YOUNG RESEARCHERS IN THE PUBLICATIONS 2017-2023



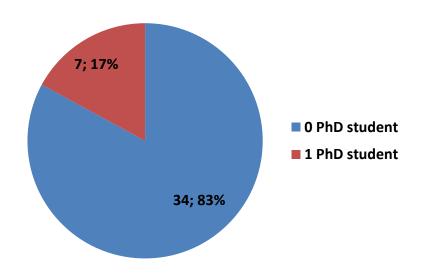
% of projects involving french young researchers: 83% vs 67% mean % of french PhDs or postdocs involved in the coproductions: 27% vs 54% mean



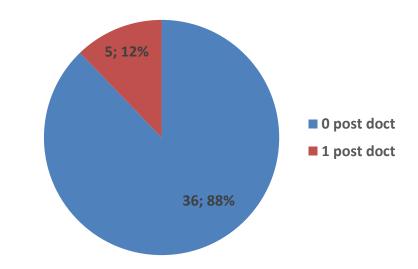
PARTICIPATION OF QUEBEC YOUNG RESEARCHERS 2017-2023

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Number of Quebec PhD students



Number of Quebec postdoctoral researchers



17% of projects involve at least one Quebec PhD student

12% of projects involve at least one Quebec post-doctoral researcher

Data from 41 responses

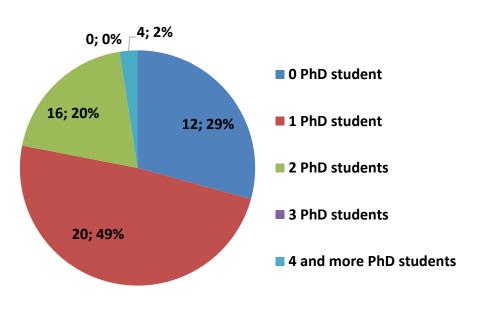


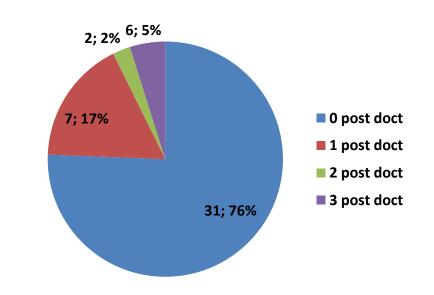
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PARTICIPATION OF BOTH FRENCH AND QUEBEC YOUNG RESEARCHERS

Number of PhD students

Number of post-doctoral researchers





71% of projects involve at least one PhD student

24% of projects involve at least one post-doctoral researcher



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MOBILITY



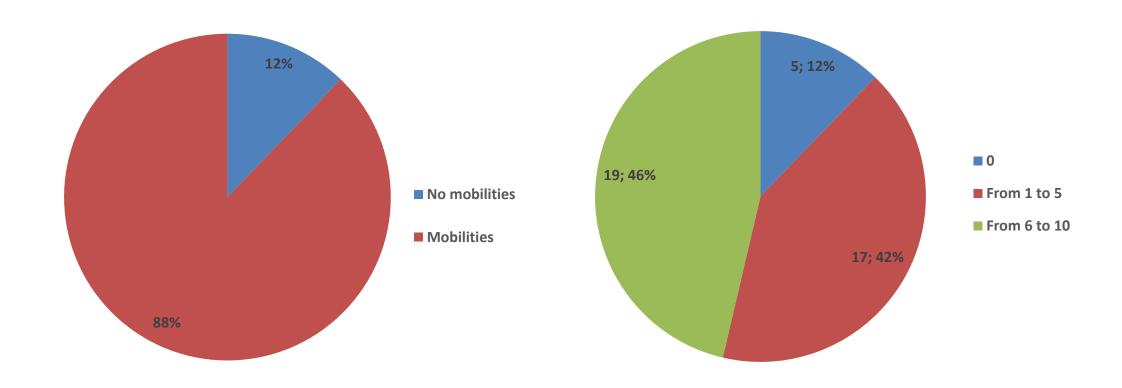
MOBILITIES 2017-2023

(DATA FROM THE SURVEY)

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Projects with/without mobilities

Number of outgoing mobilities per project



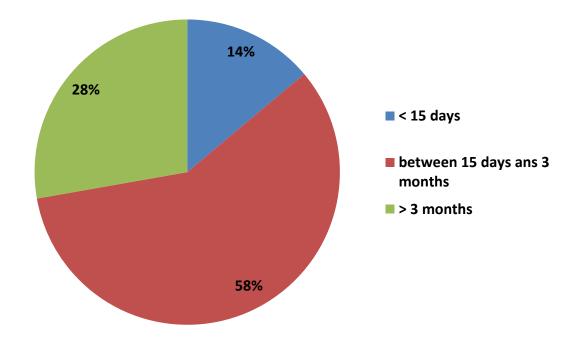


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MOBILITY: DURATION 2017-2023

(DATA FROM THE SURVEY)

France → Quebec



Data from 36 responses (116 outgoing mobilities)

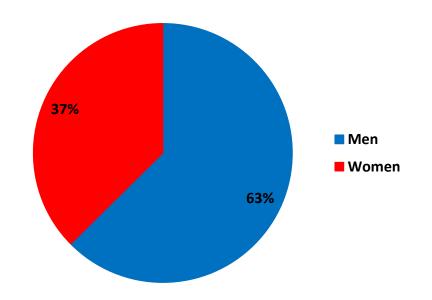


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MOBILITY: GENDER DISTRIBUTION 20017-2023

(DATA FROM THE SURVEY)

France → Quebec



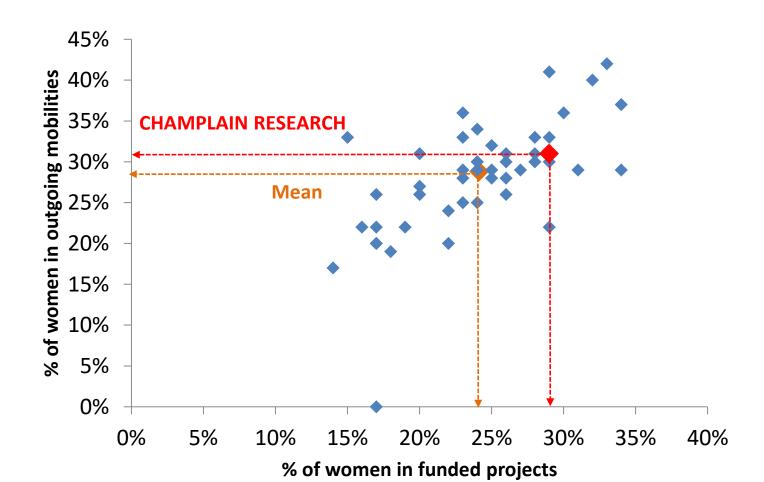
Data from 40 responses



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WOMEN MOBILITY FRANCE – QUEBEC

COMPARISON BETWEEN 50 DIFFERENT BILATERAL PROGRAMS)



% of women PIs in the funded projects: 41% vs 24% mean % of women PIs in outgoing mobilities: 37% vs 29% mean



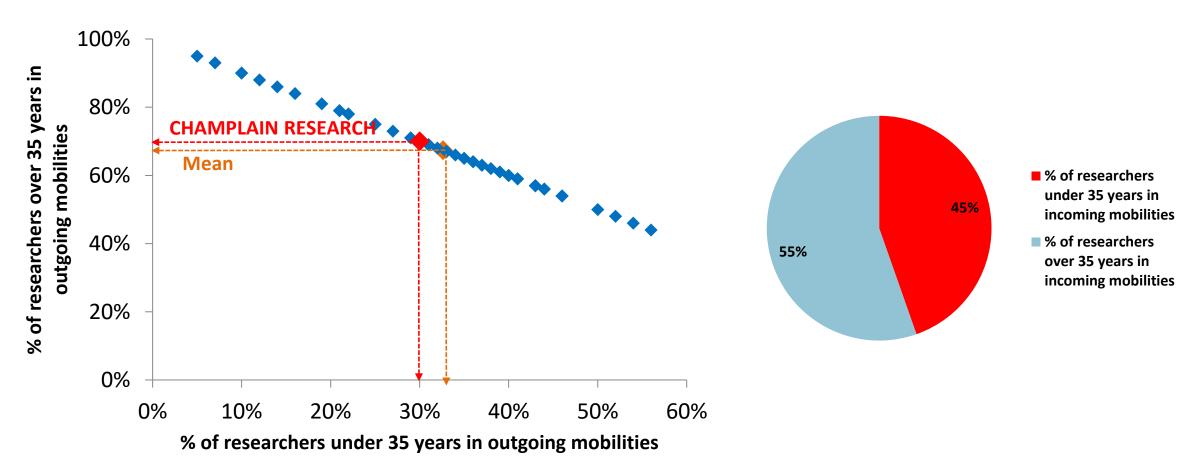
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YOUNG RESEARCHERS MOBILITY

(DATA FROM THE SURVEY)



Quebec → France



Data from 41 responses

% of young french researchers in outgoing mobilities: 30% vs 33% mean % of young quebec researchers in incoming mobilities: 45% (mean non available)



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SCIENTIFIC PRODUCTION (2017-2021)

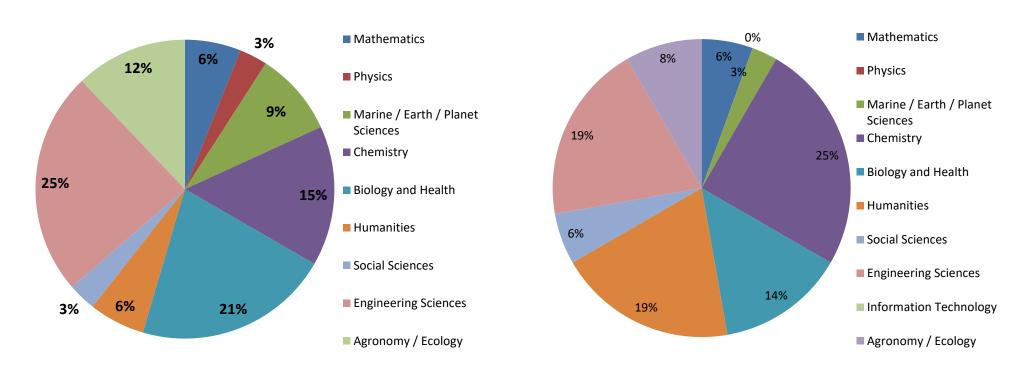


SCIENTIFIC OUTPUT 2017-2021 (1/2)

(DATA FROM THE SURVEY)

Funded projects 2017-2021

Percentage of coproductions



Data from 36 scientific coproductions



SCIENTIFIC OUTPUT 2017-2021 (2/2)

(DATA FROM THE SURVEY)

	Number of financed projects in the survey	Average annual number of scientific coproductions per project
Mathematics	2	0,5
Physics	1	0,0
Marine/Earth/Planet Sciences	3	0,2
Chemistry	5	0,9
Biology and Health	7	0,4
Humanities	2	1,8
Social Sciences	1	1,0
Engineering Sciences	8	0,4
Information Technology	No responses	
Agronomy / Ecology	4	0,4
TOTAL	33	0,55

Overall average annual number of scientific coproductions per project : 0,55 vs 0,96 mean

37% of funded projects led to one scientific coproduction at least
47% of coproductions include at least 1 French PhD or PostDoc and 11% 1 Quebec PhD or PostDoc
The average annual rate of publication for French young researchers involved in the projects is 0,19 and
0,17 for Quebec young researchers

Each young French researcher involved in the publications has published 0,77 publication per year Each young Quebec researcher involved in the publications has published 0,50 publication per year



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WHAT HAPPENS AFTER A CHAMPLAIN RESEARCH PROJECT?

MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE

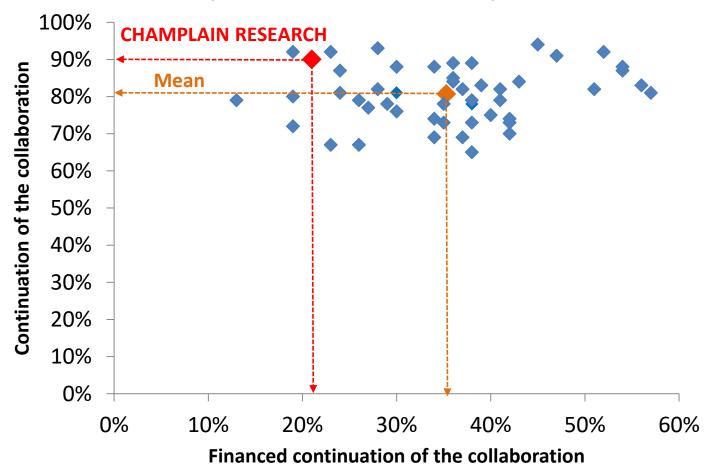
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CONTINUATION OF THE COOPERATION 2017-2023

(1/6)

(DATA FROM THE SURVEY)



Continuation of the cooperation: 90% vs 81% mean
Financed continuation of the cooperation: 21% vs 35% mean

MINISTÈRE CONTINUATION OF THE COOPERATION 2017-2023 SUPÉRIEUR ET DE LA RECHERCHE Liberte Figure Fi

(DATA FROM THE SURVEY)

90% of the cooperations continued after the CHAMPLAIN RESEARCH project

Which activities?	
Scientific co-productions	70%
Cooperative research	59%
Joint participation to conferences	30%
Researchers mobilities	27%
Joint participation to PhD thesis	24%
PhD mobilities	16%
Co-organisation of scientific events	11%
Joint diplomas (Master, PhD)	3%
Other	8%

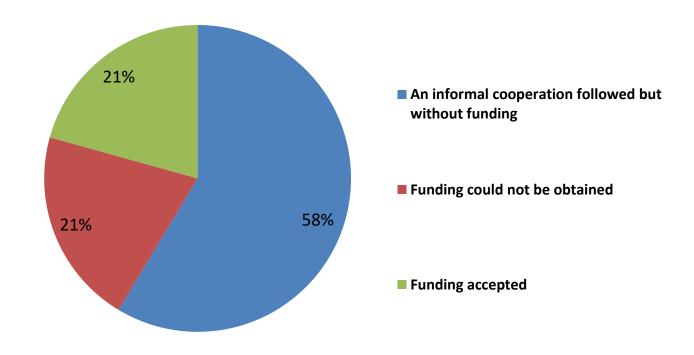


CONTINUATION OF THE COOPERATION 2017-2023

(3/6)

(DATA FROM THE SURVEY)

21% of cooperations have been funded following the project



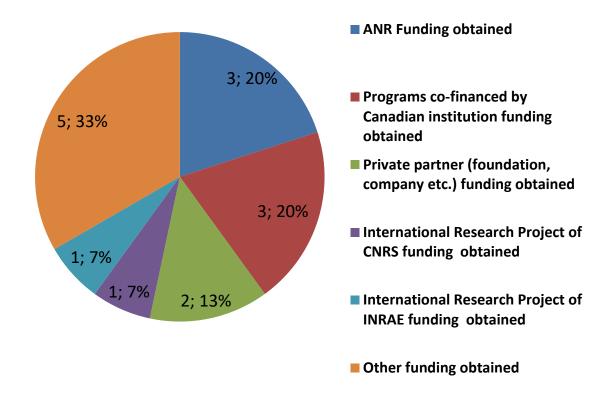


CONTINUATION OF THE COOPERATION 2017-2023

(4/6)

(DATA FROM THE SURVEY)

What kind of funded collaborations after the CHAMPLAIN RESEARCH project?

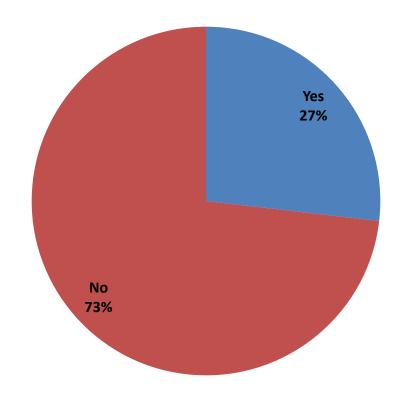




CONTINUATION OF THE COOPERATION 2017-2023 (5/6)

(DATA FROM THE SURVEY)

Has the French-Quebec cooperation involved new partners?



Data from 41 responses

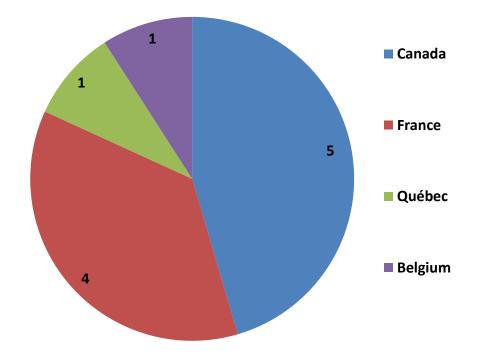


CONTINUATION OF THE COOPERATION 2017-2023

(6/6)

(DATA FROM THE SURVEY)

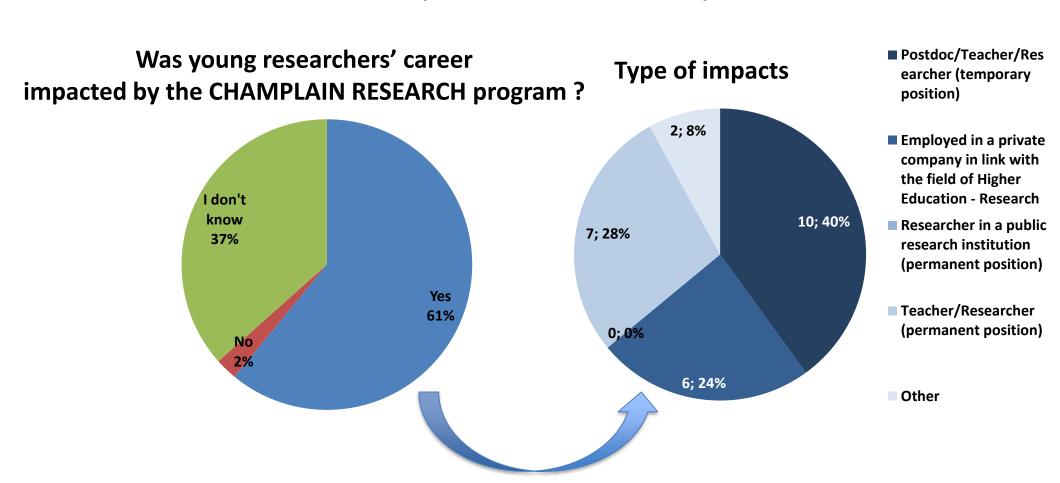
If the French-Quebec cooperation involves new partners, list with which countries





IMPACT ON YOUNG RESEARCHERS' CAREER (2017-2023) (1/2)

(DATA FROM THE SURVEY)



Data from 41 responses

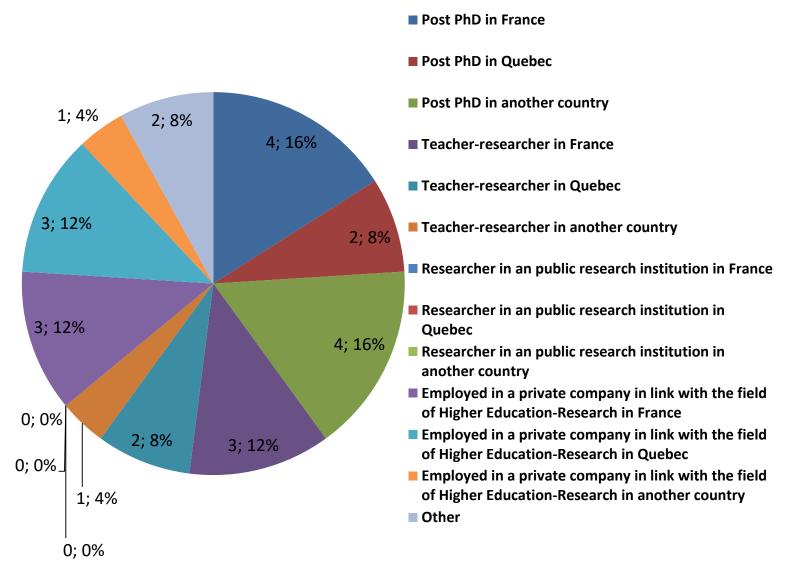
Data from 27 positive responses for a total of 25 young researchers



IMPACT ON YOUNG RESEARCHERS' CAREER 2017-2023

(2/2)

(DATA FROM THE SURVEY)



Data from 27 positive responses for a total of 25 young researchers

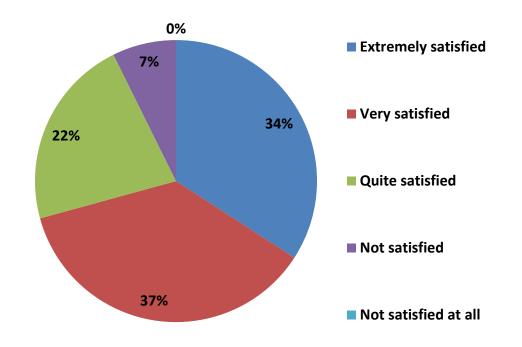


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GENERAL OPINION OF FRENCH PIS ON THE PROGRAM 2017-2023

(DATA FROM THE SURVEY)

93% of French principal investigators are satisfied

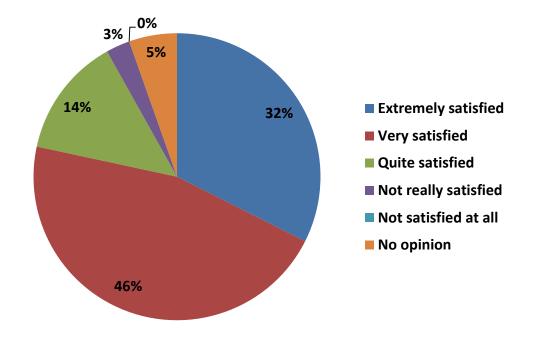




OPINION OF FRENCH PIS ABOUT FRENCH EMBASSY HELP 2017-2023

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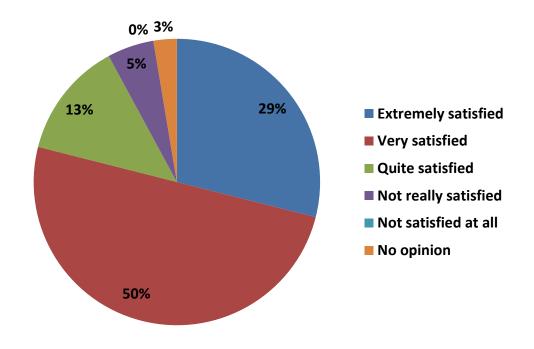
(DATA FROM THE SURVEY)





OPINION OF FRENCH PIS ABOUT ADMINISTRATIVE MANAGEMENT 2017-2023

(DATA FROM THE SURVEY)





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GENERAL OPINION OF FRENCH PIS ON THE PROGRAM

2017-2023

POSITIVE COMMENTS



Strengths of this program	Number of occurencies (out of 191)	% of funded projects
Fostering researchers' mobility	32	78%
Fostering an international research cooperation	27	66%
Simplicity of the project application process	22	54%
Fostering the training of the young researchers	21	51%
Fostering exchanges enabling scientific production	20	49%
Sufficient financial means for the mobility costs	15	37%
Helping to know the partner country	10	24%
Helpful to initiate other fundraising	10	24%
Easy implementation (administrative flexibility)	8	20%
Financial autonomy towards your institution	6	15%
Transparency of the selection process	5	12%
Good scientific-added value on financial investment	5	12%
Flexibility of the programme for actions co-financed with the Quebec partner	4	10%
Sufficiently long duration of the projects	3	7%
Timetable for implementation	3	7%
Sufficient amount of mobility time given to collaborate	0	0%
Other	0	0
Total number of occurencies	191	



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GENERAL OPINION OF FRENCH PIS ON THE PROGRAM 2017-2023



NEGATIVE COMMENTS

Weaknesses of this program	Number of occurencies (out of 71)	% of funded projects
Insufficient financial means to cover a project	18	44%
Length of support too short	11	27%
Financial means insufficient for the expenditure of mobility (transport)	8	20%
Too short duration of mobilities	7	17%
Difficult to continue the cooperation	5	12%
Administrative heaviness of the missions management	5	12%
Financial means insufficient for the expenditure of mobility (per diem)	4	10%
Timetable for implementation	4	10%
Heaviness of the process of applications	2	5%
Lack of transparency in the selection process	1	2%
Insufficient communication on the evaluation's results	1	2%
Too low number of mobilities	1	2%
Financial autonomy towards your institution	1	2%
Too long duration of mobilities	0	0%
Flexibility of the programme for actions co-financed with the partner	0	0%
Other	3	7%
Total number of occurencies	71	



PRELIMINARY CONCLUSIONS

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

Implication of young researchers candidates (66%) better than the general mean (23%) Implication of women candidates (42%) and laureates (41%) better than the general mean (24% for both)



76% of funded projects with the participation of at least one french or Quebec young researcher

Continuation of the cooperation (90%) better than the general mean (81%)

48% of the cooperations with the same previous Quebec partner

A low percentage of responses from women candidates

59% of the projects with no scientific coproductions



Low average annual scientific coproductions per project compared to the average of the other programs (0,55 vs 0,96)

Too low implication of french and quebec young researchers in the scientific coproductions Rather low implication of young researchers in the mobilities



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PRELIMINARY RECOMMANDATIONS

- > Encourage new cooperations (only 49% of new cooperations)
- > Enhance scientific coproductions (59% of projects with no scientific coproduction, 0,5 coproduction in average per project and per year)
- ➤ Increase the association of young researchers to the scientific coproductions (only 25% of the young french researchers participating to the projects are also implicated in the coproductions)
- ➤ Promote outgoing mobilities of french young researchers (only 30% of the outgoing mobilities)



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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.

CONTACTS

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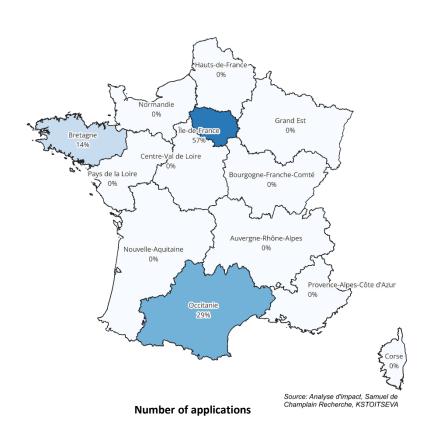
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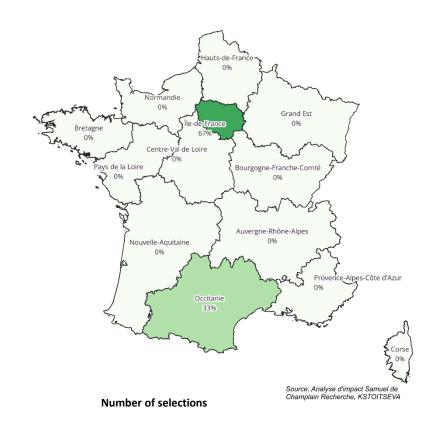
ANNEX REGIONALISATION AND SCIENTIFIC DOMAINS (CARTOGRAPHIES)



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Program CHAMPLAIN RESEARCH Regional percentages of applications and selections Mathematics 2017-2023



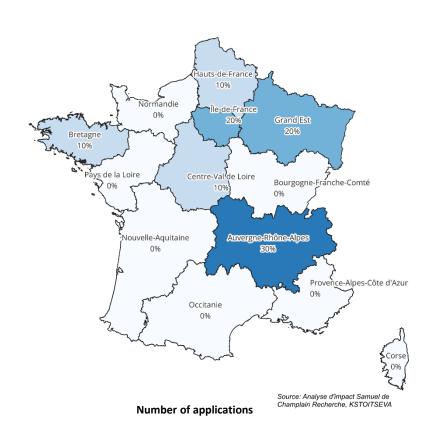


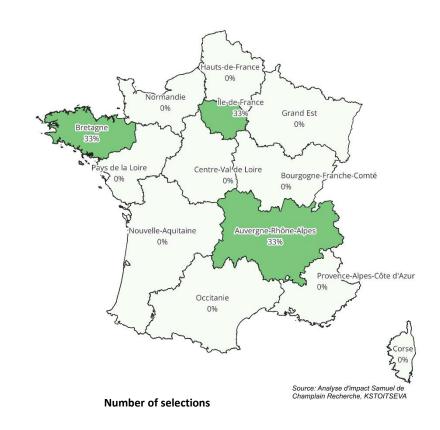
Only three regions are concerned: Ile de France (the main contributor), Occitanie and Bretagne (with no selections)



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Program CHAMPLAIN RESEARCH Regional percentages of applications and selections Physics 2017-2023



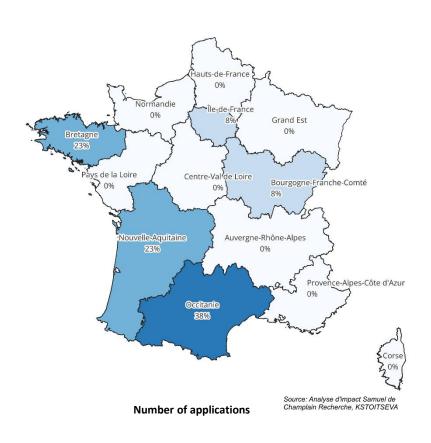


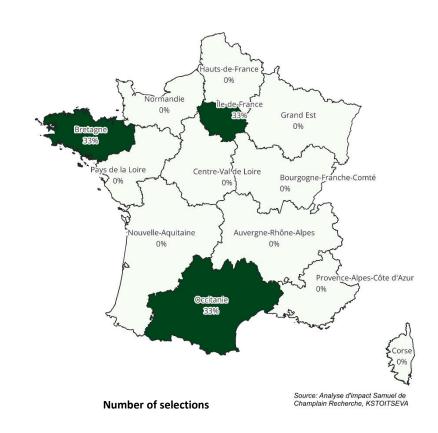
Six regions are concerned with Auvergne-Rhône-Alpes ahead but only three benefit selections (of equal number)



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Program CHAMPLAIN RESEARCH Regional percentages of applications and selections Marine, Earth, Planet Sciences 2017-2023



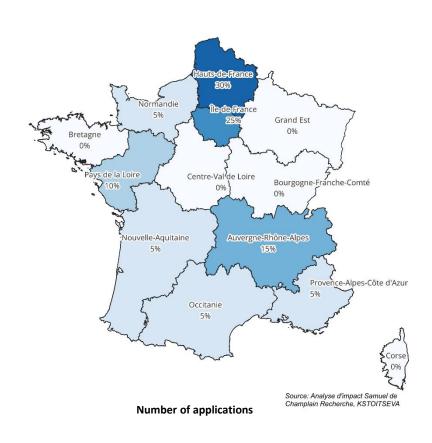


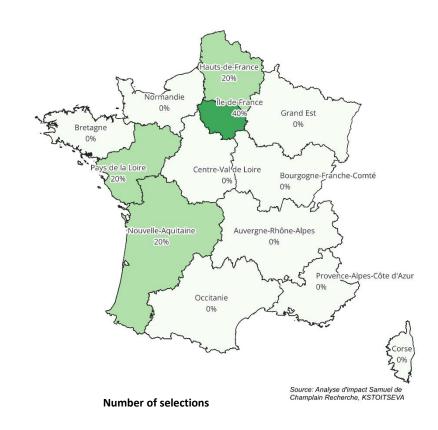
Five regions are concerned with Occitanie ahead but only three benefit selections (of equal number)



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Program CHAMPLAIN RESEARCH Regional percentages of applications and selections Chemistry 2017-2023



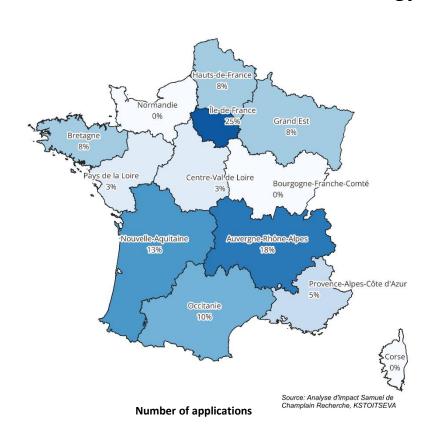


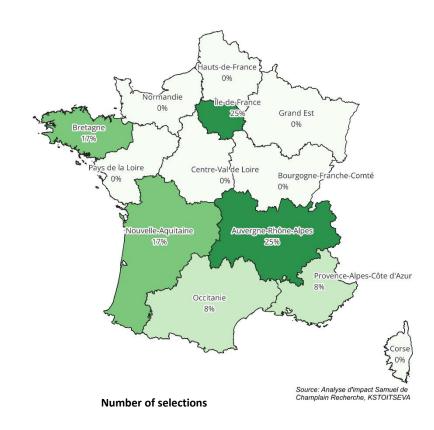
Eight regions are concerned with Hauts de France ahead but only four benefit selections (with Ile-de-France ahead)



Liberté Égalité Fraternité

Program CHAMPLAIN RESEARCH Regional percentages of applications and selections Biology and Health 2017-2023



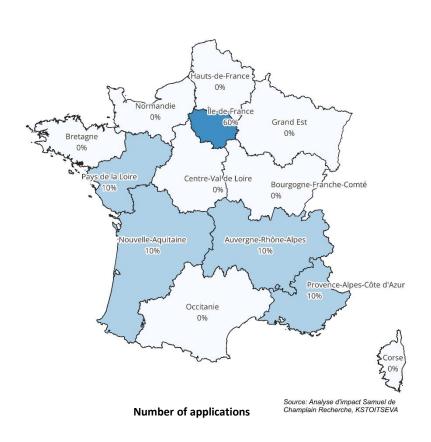


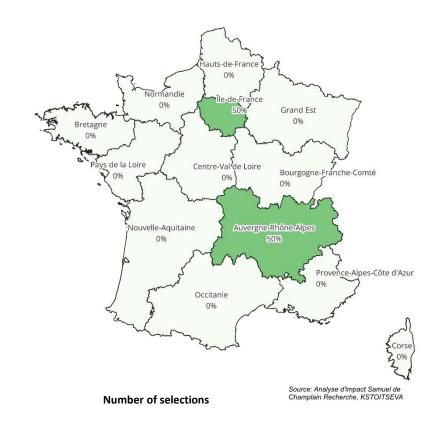
Eleven regions are concerned with Ile-de-France ahead but only six benefit selections (with Ile-de-France and Auvergne-Rhône-Alpes ahead)



Liberté Égalité Fraternité

Program CHAMPLAIN RESEARCH Regional percentages of applications and selections Humanities 2017-2023



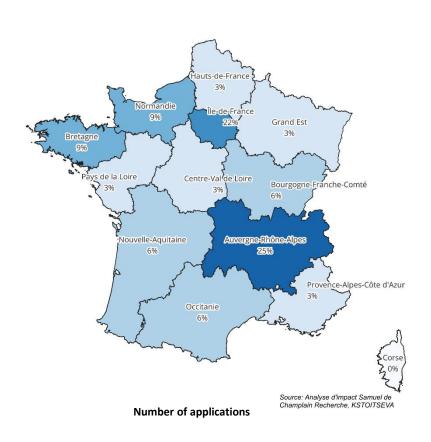


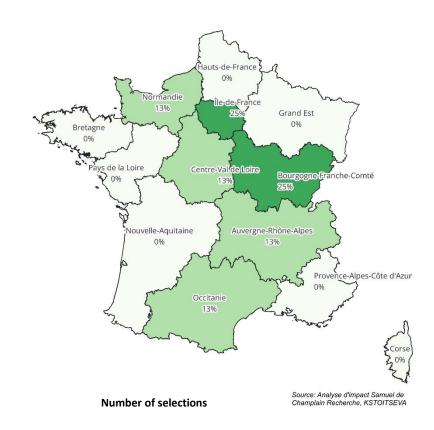
Five regions are concerned with Ile-de-France ahead but only two benefit selections (Ile-de-France and Auvergne-Rhône-Alpes)



Liberté Égalité Fraternité

Program CHAMPLAIN RESEARCH Regional percentages of applications and selections Social Sciences 2017-2023



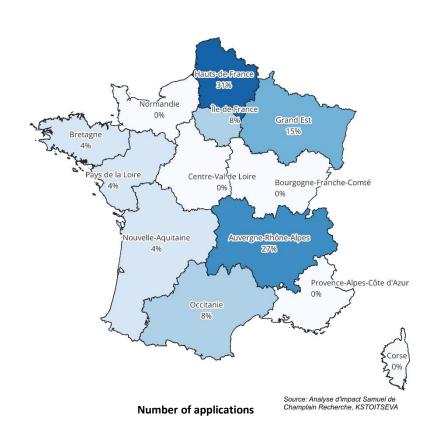


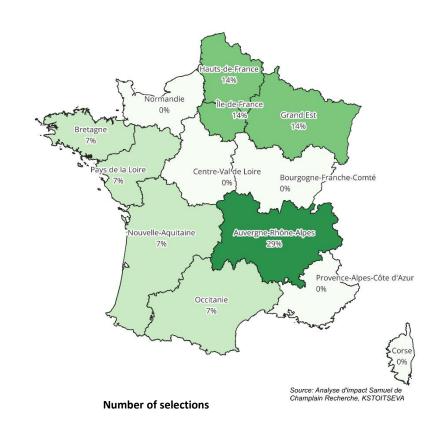
Twelve regions are concerned with Ile-de-France ahead but only six benefit selections (with Ile-de-France and Bourgogne Franche-Comté ahead)



Liberté Égalité Fraternité

Program CHAMPLAIN RESEARCH Regional percentages of applications and selections Engineering Sciences 2017-2023



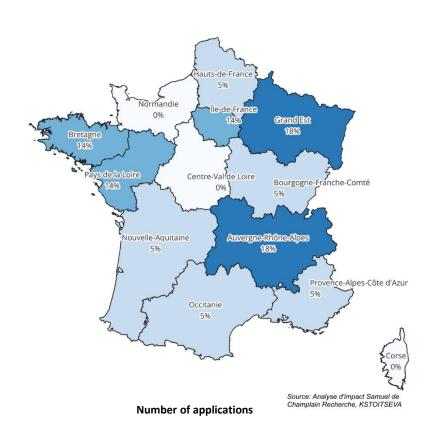


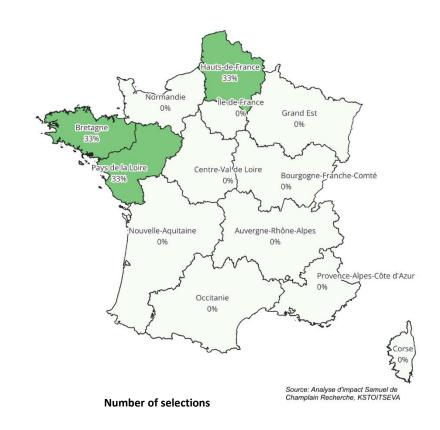
Eight regions are concerned with Hauts de France ahead. All of them benefit selections (with Auvergne-Rhône-Alpes ahead)



Liberté Égalité Fraternité

Program CHAMPLAIN RESEARCH Regional percentages of applications and selections Information technology 2017-2023



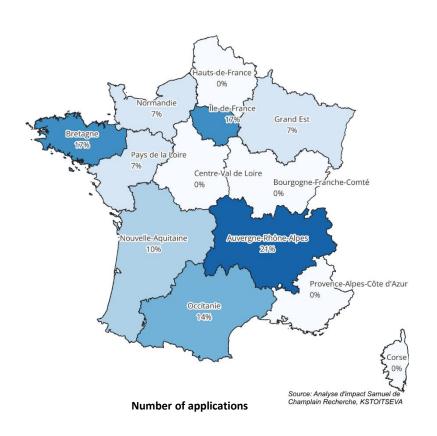


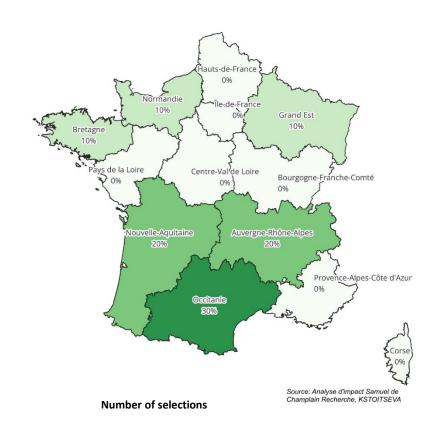
Ten regions are concerned. Only three benefit selections (with an equal distribution)



Liberté Égalité Fraternité

Program CHAMPLAIN RESEARCH Regional percentages of applications and selections *Agronomy/Ecology 2017-2023*





Eight regions are concerned with Auvergne-Rhône-Alpes ahead. Only six benefit selections (with Occitanie ahead)