

FRANCE - SLOVENIA

Scientific impact of the PHC PROTEUS (2005-2023)

MESR-DAEI / MEAE

2024

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



GENERAL PRESENTATION OF THE PROGRAM

Creation: 1994

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

Total budget (France + Slovenia): 70 000 € / year

>> including budget from the French part : around 30 300 € / year

>> including budget from the Slovenian part : around 39 700 € / year

Average budget per project (France + Slovenia): around 3 400 € / year

Number of new funded projects per year: around 13

From 2005-2023 : 645 applications submitted 239 projects funded

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DATA SOURCES

Campus France (2005-2023)

- Information about the PHC Proteus applications
- List of mobilities (from France to Slovenia and from Slovenia to France)
- Survey 1 : 2005-2020 ; Survey 2 : 2005-2023

Survey (2005-2022)

- Target: French Principal Investigators of selected projects between 2005 and 2022
- Survey 1 (2005-2018) duration : from March to May 2020
- Survey 2 (2019-2022) duration : from April to June 2024
- 57% response ratio (107 respondents for 186 queries)

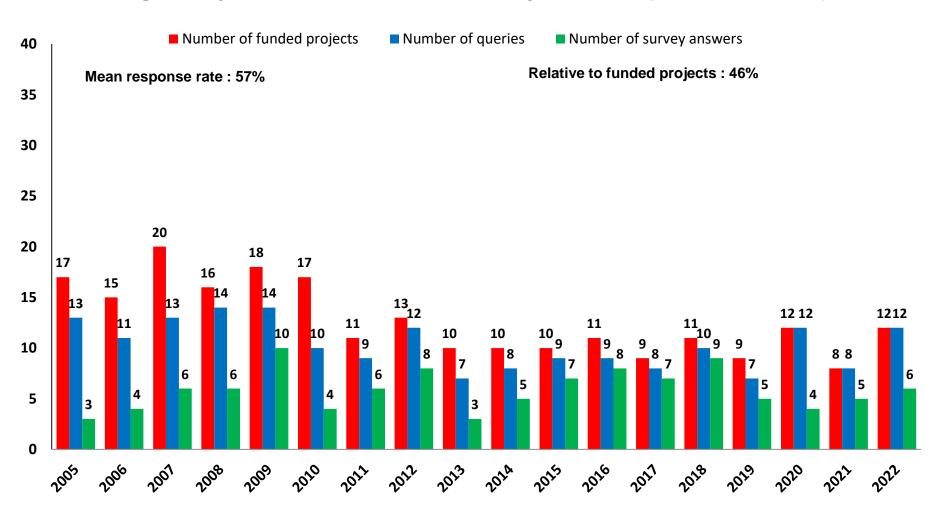
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ANSWERS TO THE SURVEYS

Average response rate to the surveys: 57 % (107 answers)





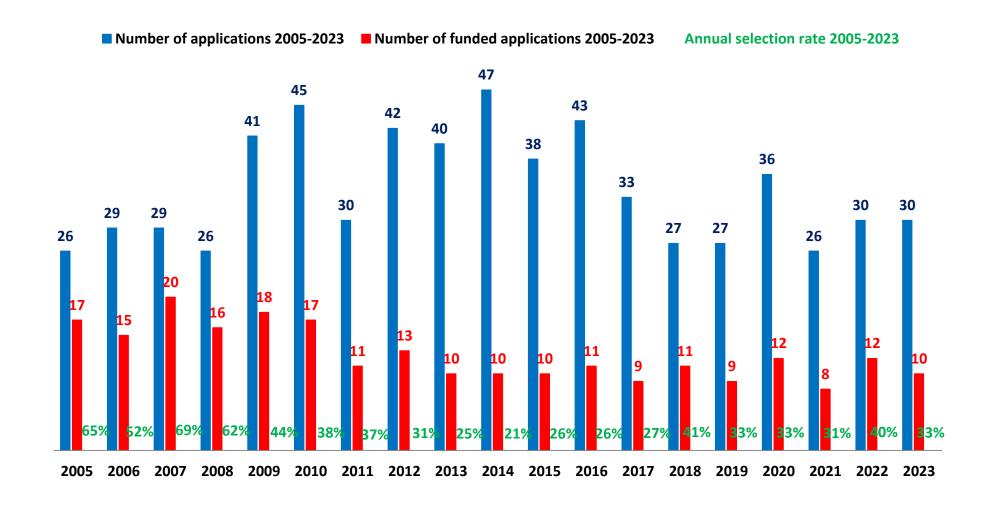
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2005-2023 KEY POINTS



NUMBER OF APPLICATIONS AND SELECTION RATE

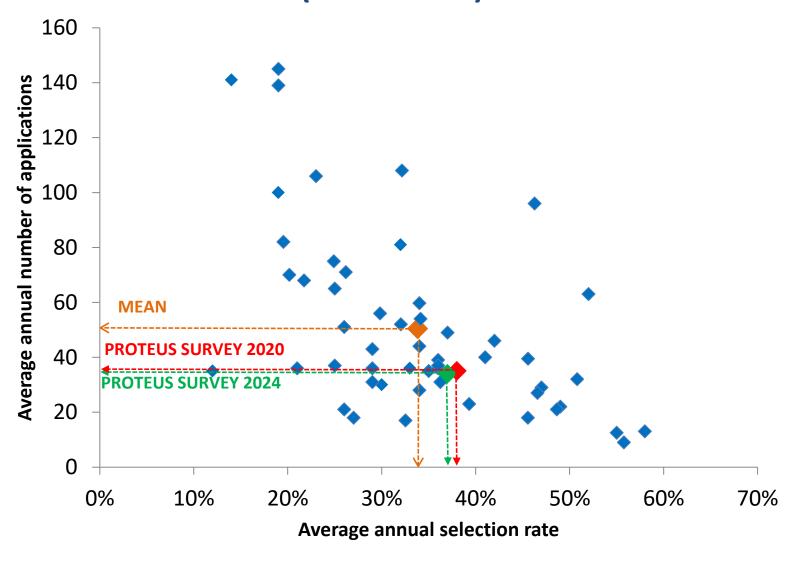
Average selection rate from 2005-2023: 37%



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NUMBER OF APPLICATIONS VS SELECTION RATE (2005-2023)



Survey 2020 : 43 programs

Survey 2024: 53 programs



BEFORE THE PROTEUS PROJECT

69% of the laureates have already previously cooperated with Slovenia (data from 107 responses)

(mean of all programs : 56%)

This previous cooperation was with the same partner for 62% of the laureates (data from 74 responses)

(mean of all programs : 46%)

This previous cooperation was financed by the PHC Proteus for 44% of the laureates (data from 74 responses)

(mean of all programs : 21%)

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BEFORE THE PROTEUS PROJECT

With which scientific collaboration program?	
PHC Proteus	55%
European projects	13%
CNRS International fundings	10%
National Research Agency (ANR)	2%
BGF (French government grants)	1%
Others	19%

Data from 59 responses

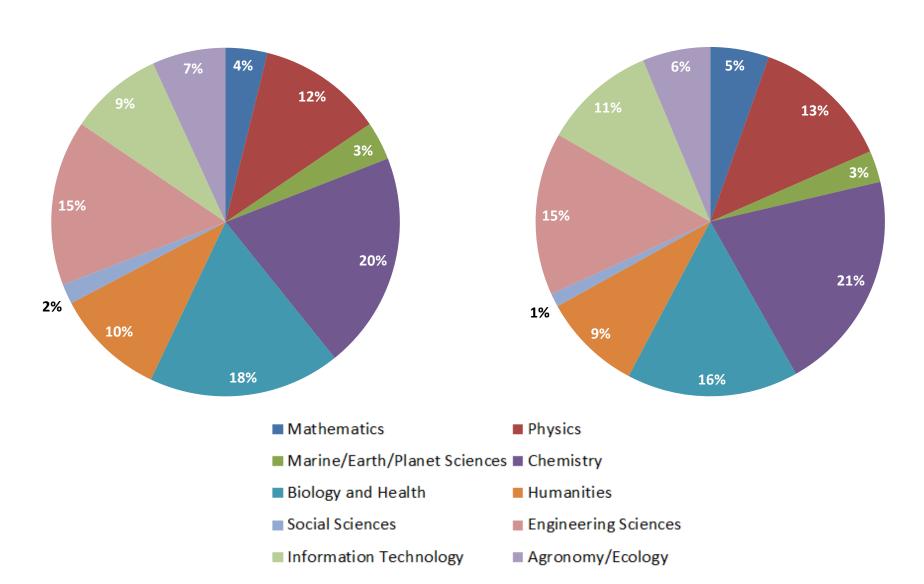
Plus 71 previous cooperations based on other exchanges (co-publication, meetings, joint PhD...)

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SCIENTIFIC DOMAINS OF PROJECTS (2005-2023)

Number of applications: 645 Number of funded projects: 239





SCIENTIFIC DOMAINS: EVOLUTION 2005-2023

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DS1: Mathematics

DS2: Physics

DS3: Marine, Earth, Planet sciences

DS4: Chemistry

DS5: Biology and Health

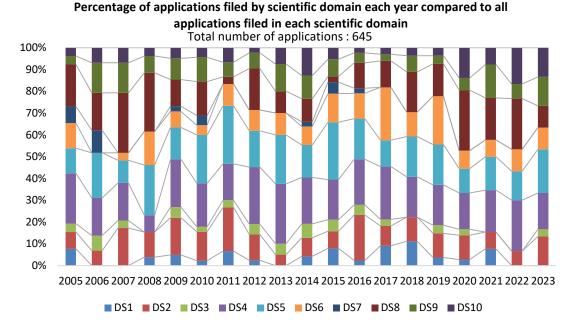
DS6: Humanities

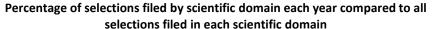
DS7: Social sciences

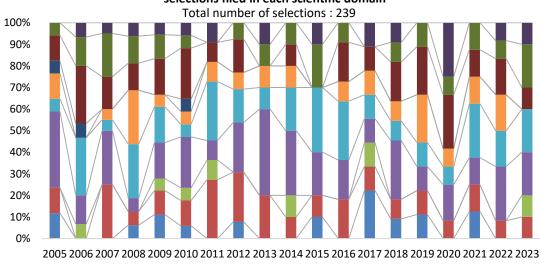
DS8 : Engineering sciences

DS9: Information technology

DS10: Agronomy/Ecology





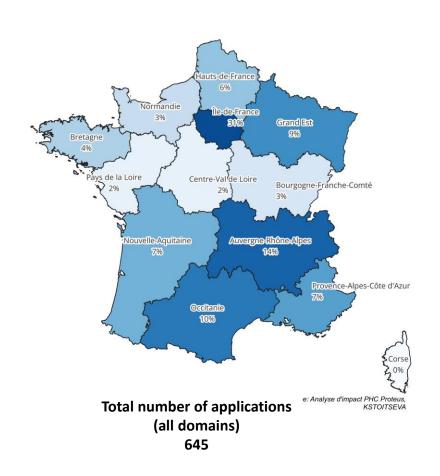


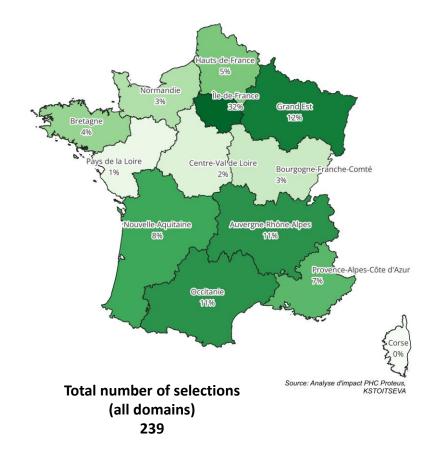


REGIONAL DISTRIBUTION OF SELECTED PROJECTS (2005-2023)

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PHC PROTEUS Regional percentages of applications and selections 2005-2023



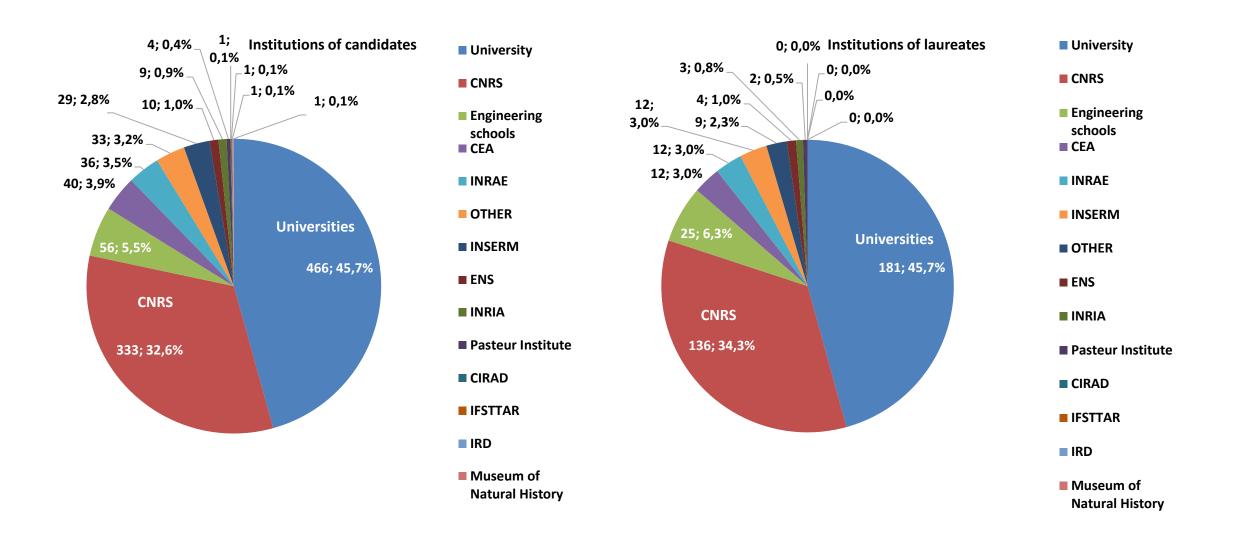


The region lle de France is the main contributor both for applications and selections followed by Auvergne-Rhône-Alpes for applications and Grand Est for selections



FRENCH PARTICIPATING INSTITUTIONS (2005-2023)

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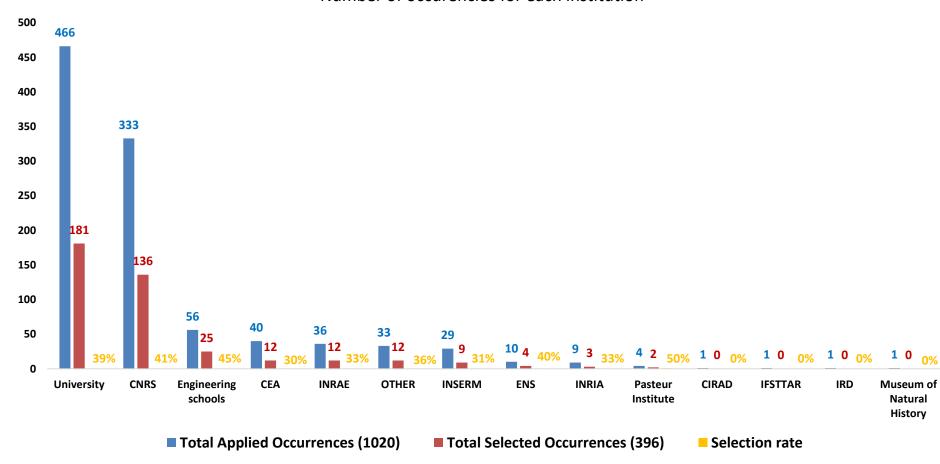




FRENCH PARTICIPATING INSTITUTIONS (2005-2023)

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Number of occurencies for each institution



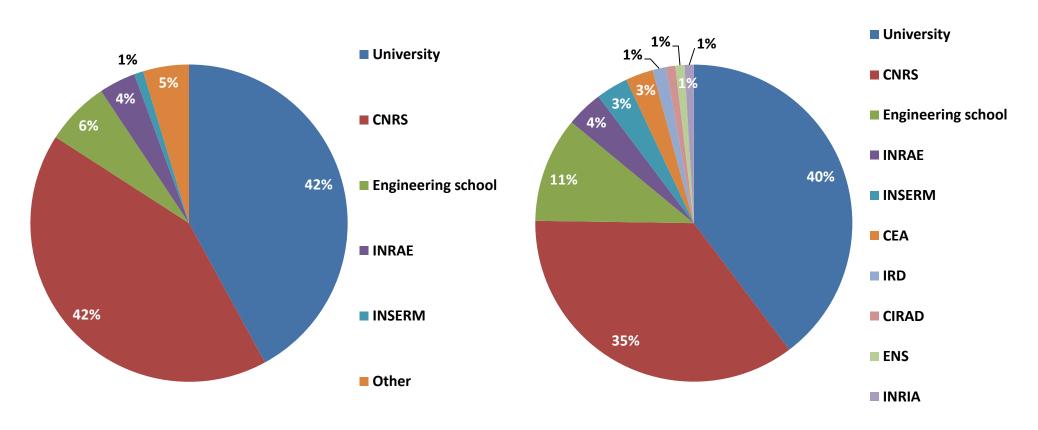


FRENCH PARTICIPATING INSTITUTIONS (2005-2022)

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Laboratories authorities

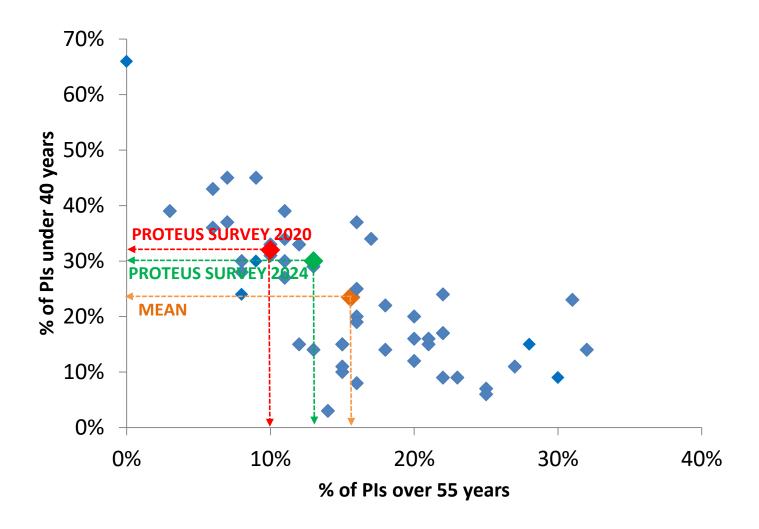


Data from 107 responses



AGE OF FRENCH PRINCIPAL INVESTIGATORS (2005-2022)

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Survey 2020 : 43 programs

Survey 2024: 53 programs



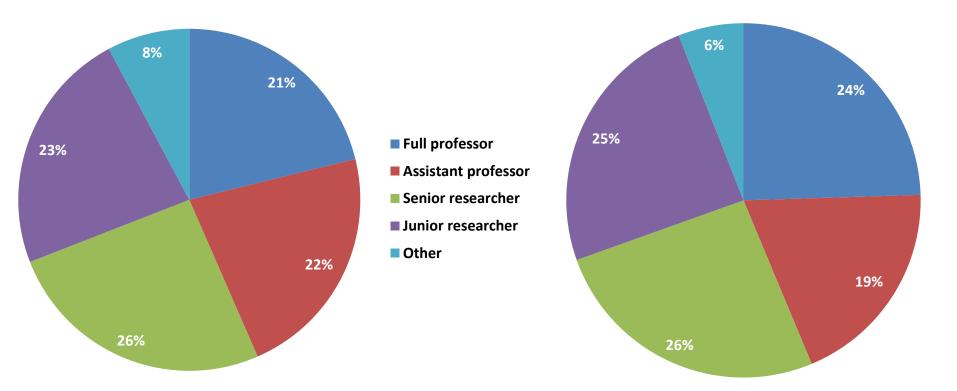
FRENCH PRINCIPAL INVESTIGATORS: STATUS (2005-2023)

(DATA FROM CAMPUS FRANCE)

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Applicants professional status

Laureates professional status



Data from 359 french applicants and 151 french laureates



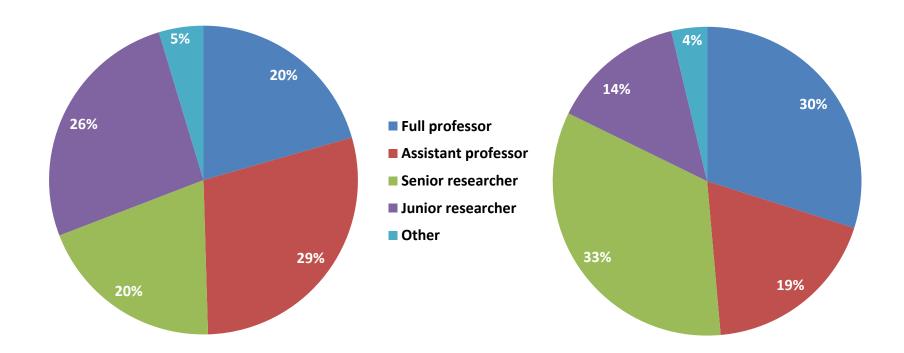
FRENCH PIS (PRINCIPAL INVESTIGATORS): STATUS (2005-2022)

(DATA FROM THE SURVEYS)

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Previous professional status (at the beginning of the project)

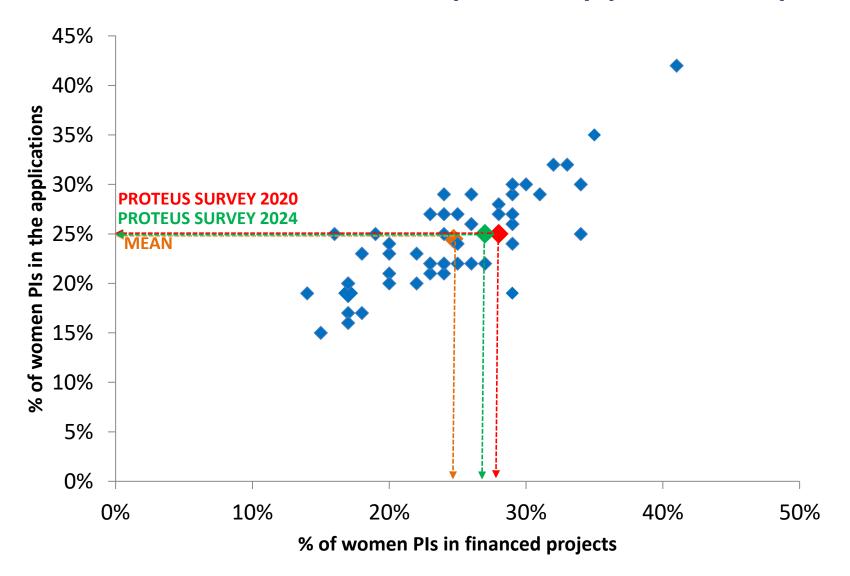
Current professional status



Data from 107 responses



IMPLICATION OF WOMEN (FRANCE) (2005-2023)



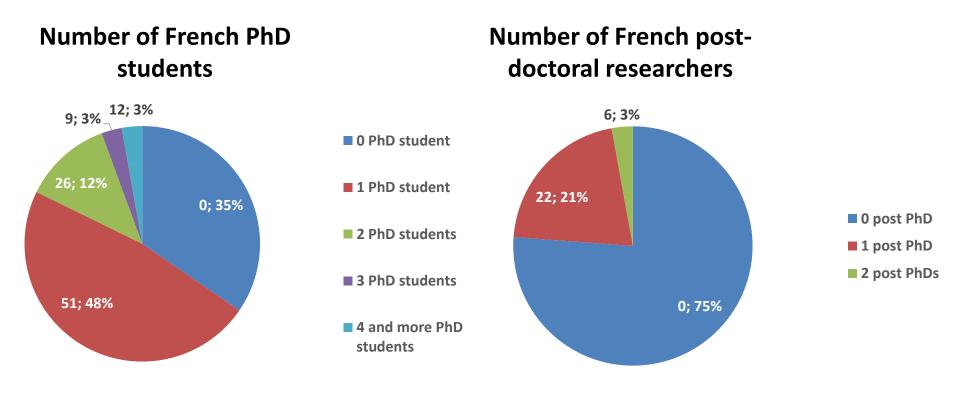
Survey 2020: 43 programs

Survey 2024: 53 programs



PARTICIPATION OF FRENCH YOUNG RESEARCHERS (2005-2022)

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65% of projects involve at least one French PhD student

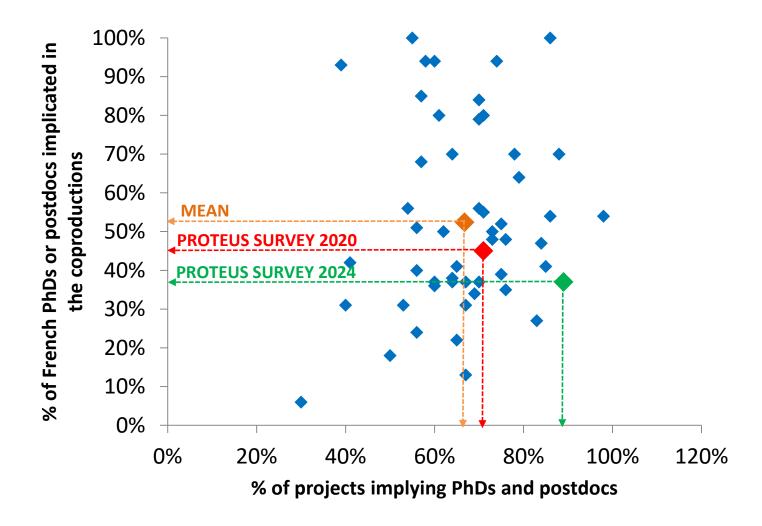
23% of projects involve at least one French post-doctoral researcher

Overall, 89% of projects involve at least one French young researcher

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IMPLICATION OF FRENCH YOUNG RESEARCHERS IN THE PUBLICATIONS (2005-2022)



Survey 2020 : 43 programs

Survey 2024: 53 programs



PARTICIPATION OF SLOVENIAN YOUNG RESEARCHERS (2019-2022)

Between 2019 and 2022, 4 Slovenian PhDs have been involved in the projects

20% of projects involve at least one Slovenian PhD student

Between 2019 and 2022, 9 Slovenian postdocs have been involved in the projects

40% of projects involve at least one Slovenian post-doctoral researcher

Overall, 60% of projects involve at least one Slovenian young researcher

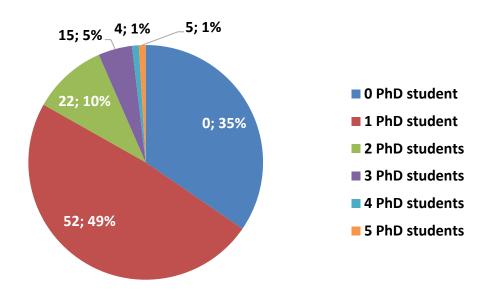
Data from the survey 2024 (20 responses)



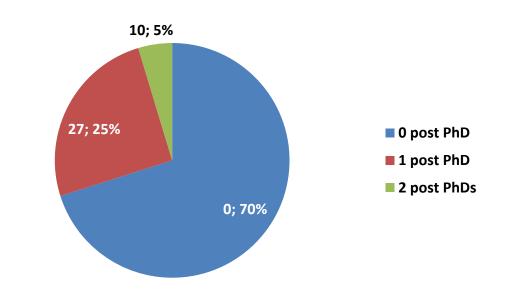
PARTICIPATION OF BOTH FRENCH AND SLOVENIAN YOUNG RESEARCHERS

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Number of PhD students



Number of post-doctoral researchers



65% of projects involve at least one PhD student

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

Overall, 75% of projects involve at least one French or Slovenian young researcher



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MOBILITY

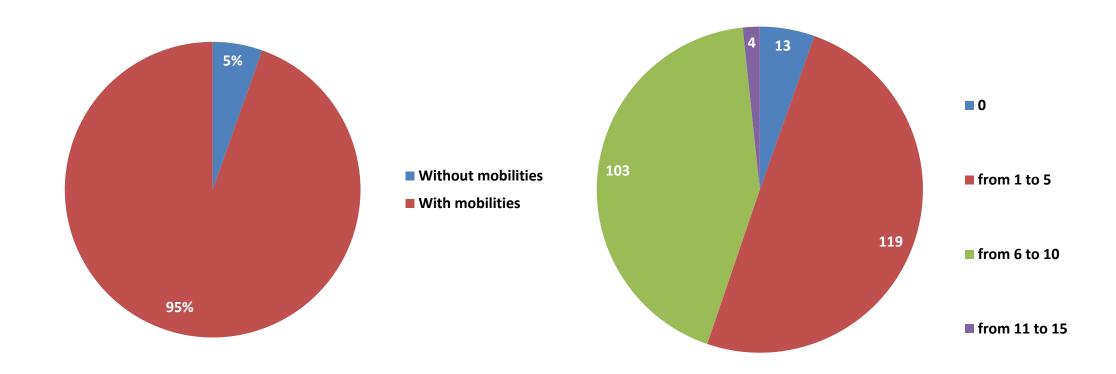


MOBILITIES (2005-2023)

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Projects with/without mobilities

Number of mobilities per project



Data from 239 funded projects

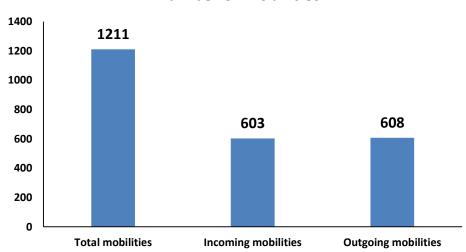


SUPÉRIEUR

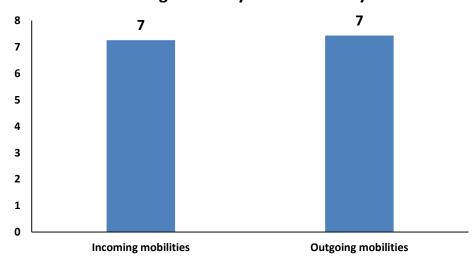
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MOBILITIES (2005-2023)

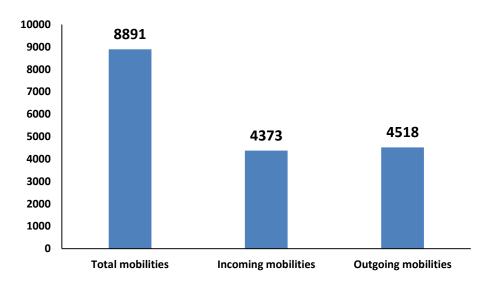
Number of mobilities



Average mobility duration in days



Total duration of mobilities in days

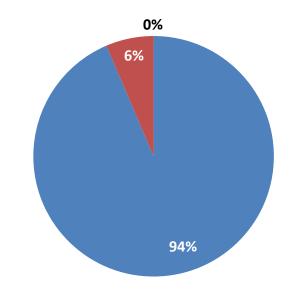




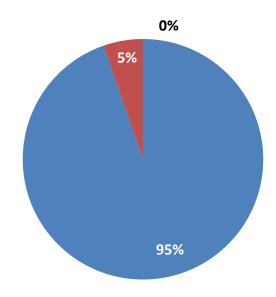
MOBILITY: DURATION (2005-2023)

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Slovenia→ France



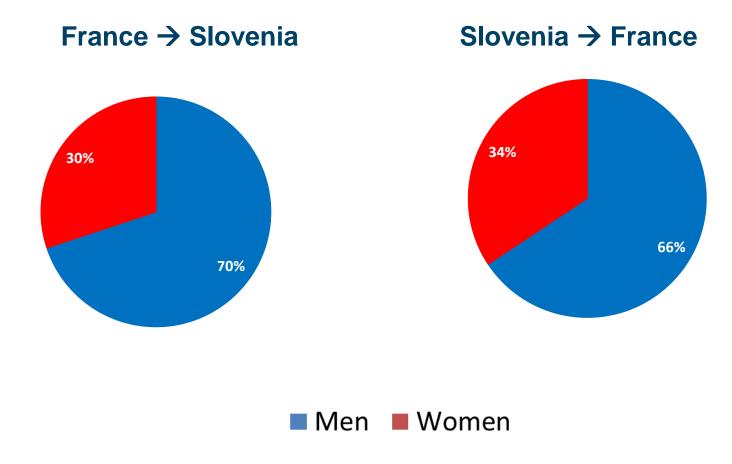
- < 15 days</p>
- between 15 days and 3 months
- > 3 months

Data from 608 outgoing mobilities and 603 incoming mobilities



MOBILITY: GENDER DISTRIBUTION (2005-2023)



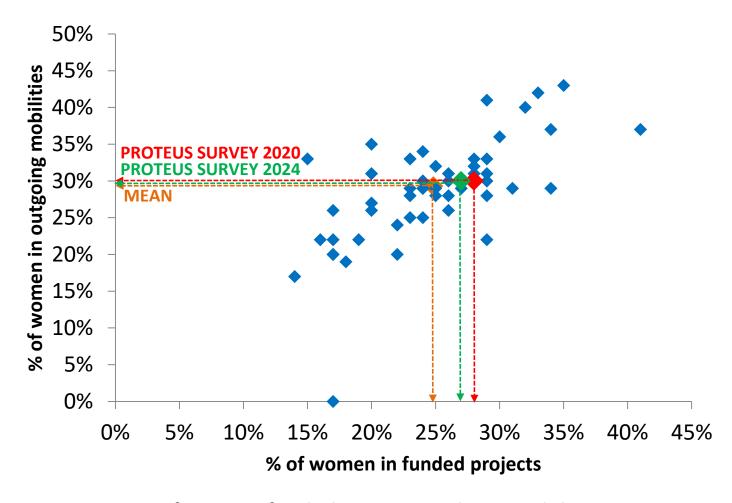


Data from 608 outgoing mobilities and 603 incoming mobilities



WOMEN MOBILITY FRANCE – SLOVENIA (2005-2023)

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Data from 239 funded projects and 608 mobilities

Survey 2020 : 43 programs Survey 2024 : 53 programs



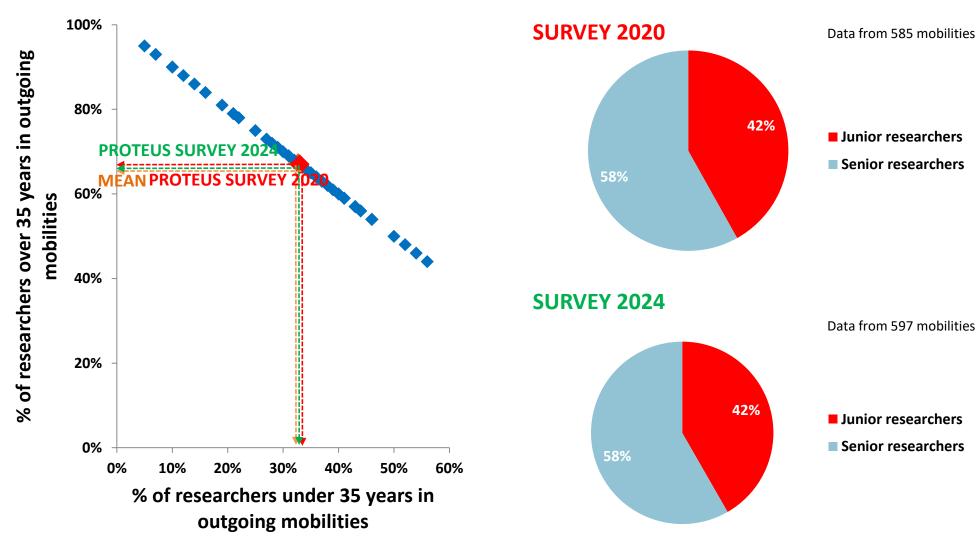
YOUNG RESEARCHERS MOBILITY FRANCE - SLOVENIA

(2005-2023)

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Slovenia → France



Survey 2020 : 43 programs

Survey 2024: 53 programs



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SCIENTIFIC PRODUCTION (2005-2022)



SCIENTIFIC PRODUCTION 2005-2022

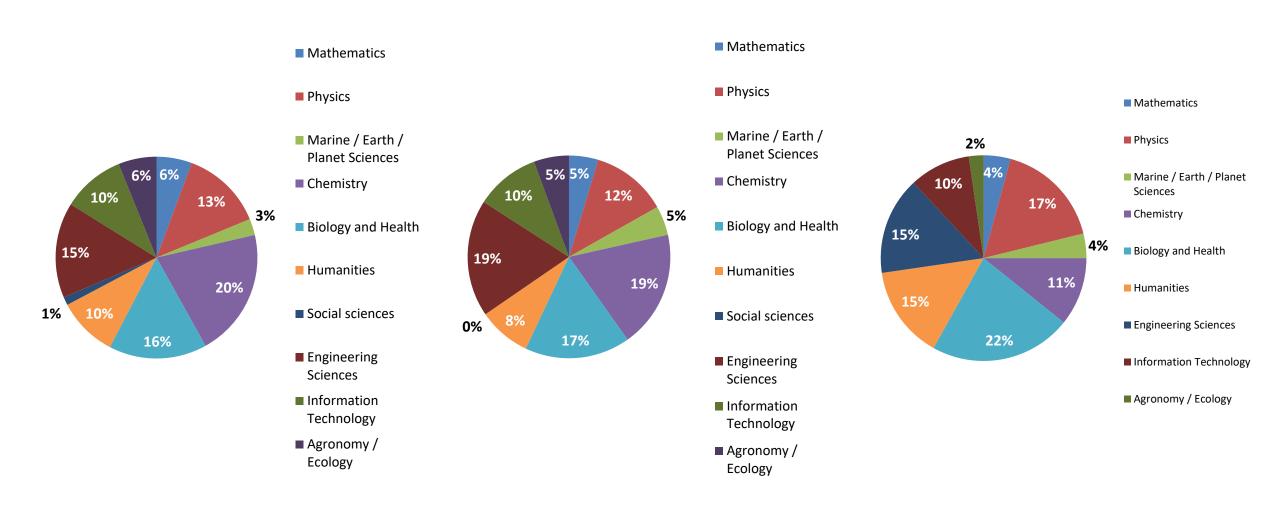
(DATA FROM CAMPUS FRANCE AND THE SURVEYS)

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Funded projects 2005-2022

Responses to the survey 2005-2022

Coproductions 2005-2022



229 funded projects

107 responses
No responses for DS7

Analysis of 260 coproductions No responses for DS7



SCIENTIFIC PRODUCTION (2005-2022) ENQUETES 2020+2024

	Number of funded projects 2020 survey	Number of funded projects 2020+2024 surveys	Average annual number of scientific coproductions per project 2020 survey	Average annual number of scientific coproductions per project 2020+2024 surveys
Mathematics	4	5	0,8	1,1
Physics	10	13	2,0	1,7
Marine/Earth/Planet Sciences	5	5	1,0	1,0
Chemistry	18	20	0,7	0,7
Biology and Health	14	18	1,9	1,6
Humanities	6	9	1,8	2,1
Social Sciences	No response	No response		
Engineering Sciences	16	20	1,0	1,0
Information Technology	9	11	0,9	1,1
Agronomy / Ecology	5	6	0,6	0,5
TOTAL/MOYENNE	87	107	1,2	1,2

Overall average annual number of scientific coproductions per project 2018 : 1,20 vs 0,96 mean Overall average annual number of scientific coproductions per project 2020+2024 : 1,20

Enquêtes 2020+2024

68% of funded projects led to at least 1 scientific coproduction (vs 67% survey 2020)

30% of scientific coproductions involve at least 1 young researcher (vs 30% survey 2020)

The average annual rate of publication of young researchers implicated in the projects is 0,29 (not available survey 2020)

The average annual rate of young researchers implicated in the scientific coproductions is 0,79 (not available survey 2020)



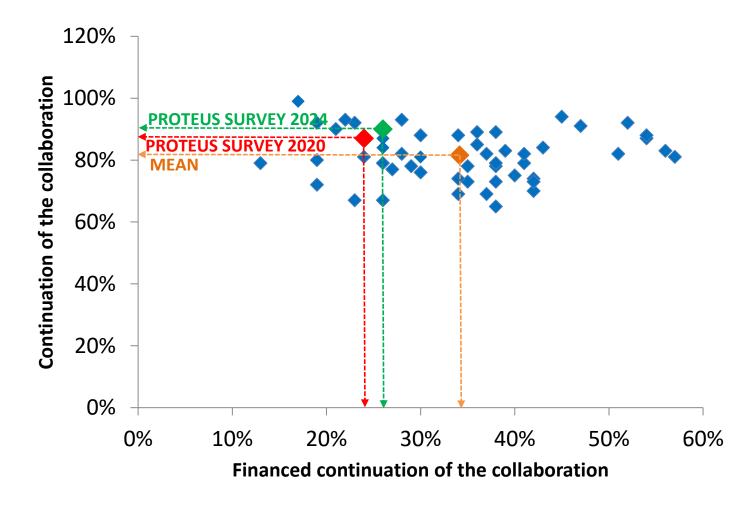
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WHAT HAPPENS AFTER A PROTEUS PROJECT?



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CONTINUATION OF THE COOPERATION



Data from 105 responses (continuation) and 92 responses (financing)

Survey 2020 : 43 programs Survey 2024 : 53 programs



CONTINUATION OF THE COOPERATION

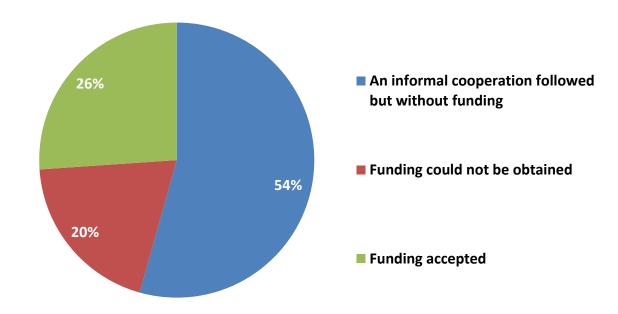
90% of the cooperations continued after the PROTEUS project

Which activities?	
Cooperative research	69%
Scientific co-productions	60%
Researchers mobilities	52%
Joint participation to conferences	48%
PhD mobilities	24%
Co-organisation of scientific events	15%
Joint participation to PhD thesis	8%
Joint diplomas (Master, PhD)	1%
Other	14%



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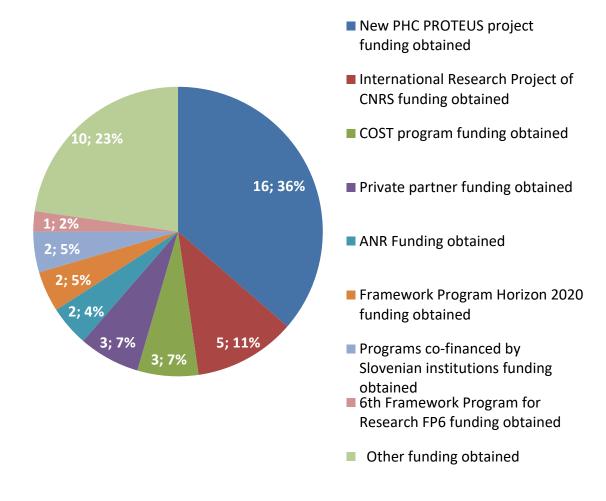
26% of cooperations have been funded following the project





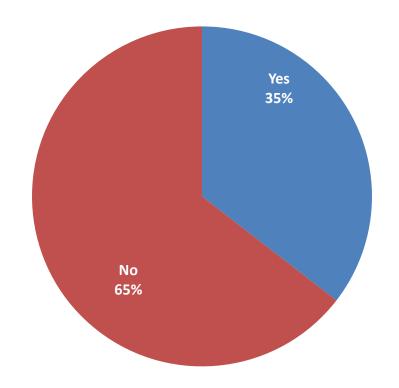
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What kind of funded collaborations after the PHC PROTEUS project?





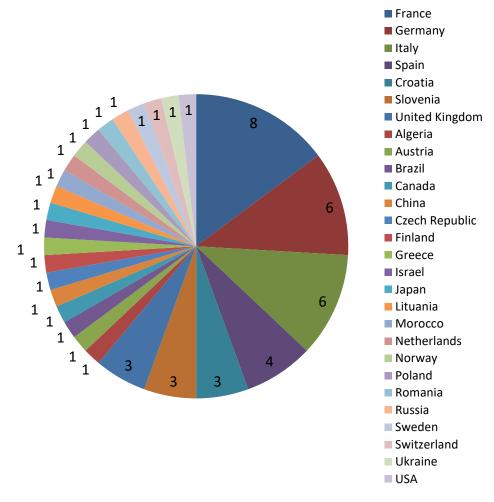
Has the French-Slovenian cooperation involved new partners?





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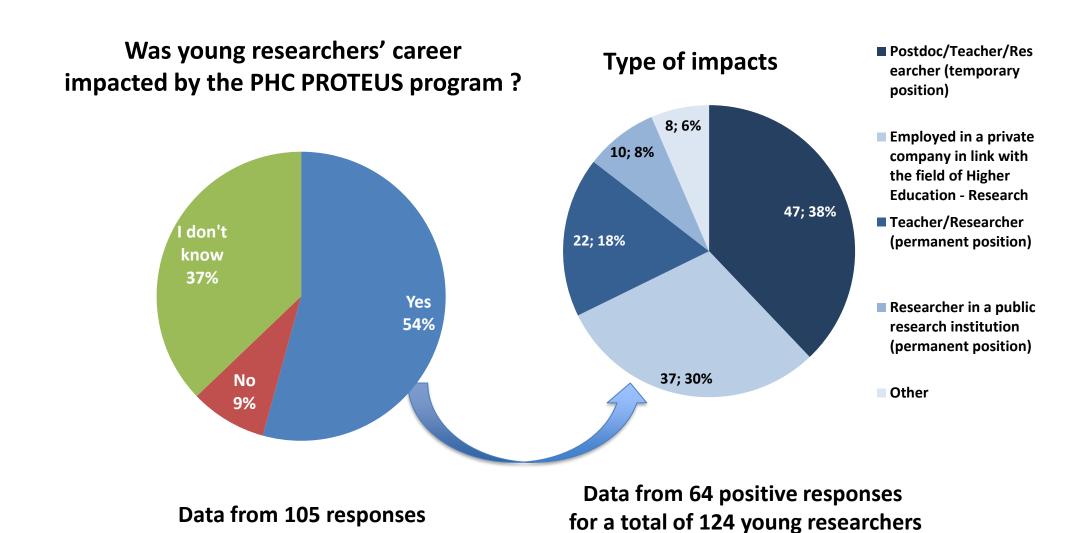
If the French-Slovenian cooperation involves new partners, list with which countries





IMPACT ON YOUNG RESEARCHERS' CAREER

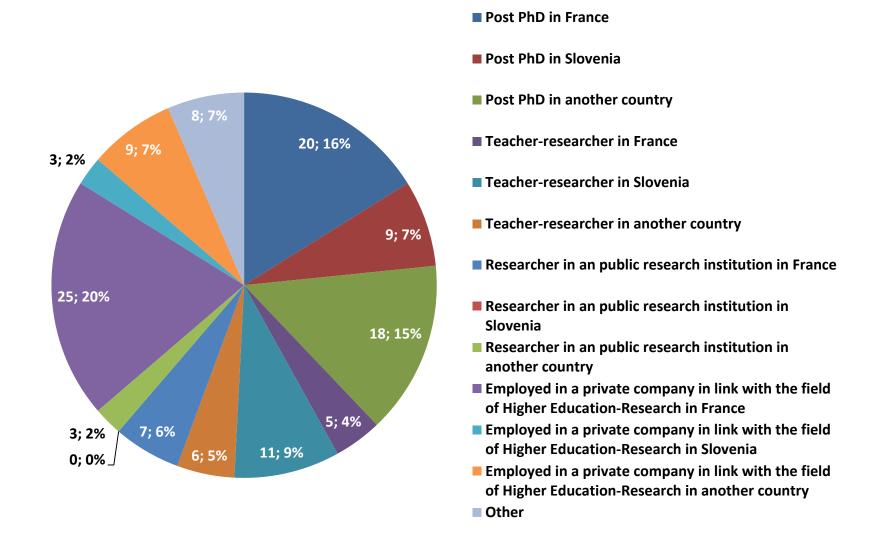






IMPACT ON YOUNG RESEARCHERS' CAREER

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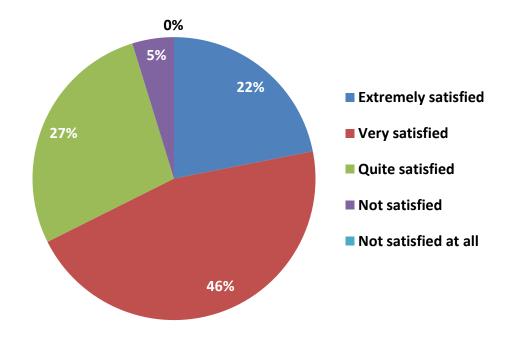




GENERAL OPINION OF FRENCH PRINCIPAL INVESTIGATORS ON THE PROGRAM

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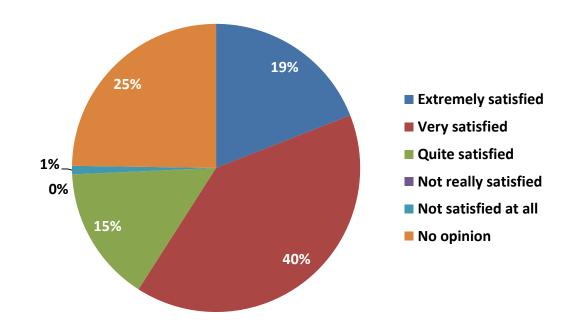
95% of French principal investigators are satisfied





OPINION OF FRENCH PRINCIPAL INVESTIGATORS ABOUT FRENCH EMBASSY HELP

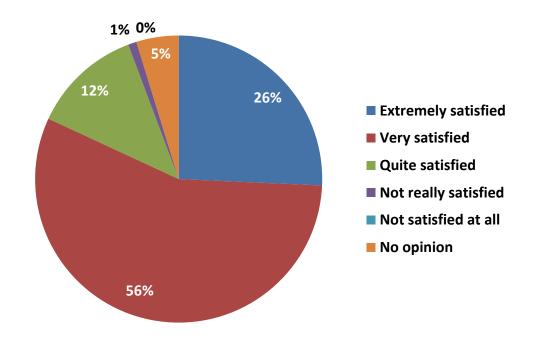
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OPINION OF FRENCH PRINCIPAL INVESTIGATORS ABOUT ADMINISTRATIVE MANAGEMENT





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GENERAL OPINION OF FRENCH PIS ON THE PROGRAM POSITIVE COMMENTS



Strengths of this program	Number of occurencies (out of 578)	% of funded projects
Fostering researchers' mobility	88	82%
Fostering an international research cooperation	77	72%
Simplicity of the project application process	66	62%
Fostering exchanges enabling scientific production	62	58%
Fostering the training of young researchers	57	53%
Easy implementation (administrative flexibility)	48	45%
Financial autonomy towards your institution (survey 2 only)	8	40%
Helping to know the partner country	37	35%
Good scientific-added value on financial investment	34	32%
Sufficient financial means for the mobility costs	24	22%
Timetable for implementation (survey 2 only)	4	20%
Helpful to initiate other fundraising	21	20%
Sufficiently long duration of the projects	20	19%
Sufficient amount of mobility time given to collaborate	19	18%
Transparency of the selection process	10	9%
Flexibility of the programme for actions co-financed with the Slovenian partner (survey 2 only)	0	0%
Other (survey 1 only)	3	3%
Total number of occurencies	<i>578</i>	



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GENERAL OPINION OF FRENCH PIS ON THE PROGRAM NEGATIVE COMMENTS



Weaknesses of this program	Number of occurencies (out of 297)	% of funded projects
Insufficient financial means to cover a project	53	50%
Length of support too short	41	38%
Financial means insufficient for the expenditure of mobility (transport)	36	34%
Financial means insufficient for the expenditure of mobility (per diem)	28	26%
Difficult to continue the cooperation	28	26%
Lack of transparency in the selection process	26	24%
Too short duration of mobilities	26	24%
Insufficient communication on the evaluation's results	18	17%
Heaviness of the process of applications	14	13%
Too low number of mobilities	10	9%
Flexibility of the programme for actions co-financed with the partner (survey 2 only)	1	5%
Financial autonomy towards your institution (survey 2 only)	1	5%
Timetable for implementation (survey 2 only)	1	5%
Administrative heaviness of the missions management	5	5%
Too long duration of mobilities	3	3%
Other (survey 1 only)	6	7%
Total number of occurencies	297	



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 laureates (30%) better than the general mean (23%) Implication of women laureates (27%) better than the general mean (24%) 75% of funded projects with the participation of at least one french or slovenian young



researcher
Average annual scientific coproductions per project better than the average of the other programs (1,2 vs 0,96)

Rather good rate of average annual publications for young researchers involved in the scientific coproductions (0,79)

Continuation of the cooperation (90%) better than the general mean (82%) (but only 26% with new fundings versus 34% for the general mean)

Only 31% of new cooperations (mean of all programs : 44%)

62% of the cooperations with the same previous slovenian partner (mean of all programs : 46%) This ongoing cooperation is financed by a new PROTEUS funding for 44% of the Pis (mean of all programs : 21%)



32% of the projects with no scientific coproduction

Only 37% of french and slovenian young researchers involved in the scientific coproductions (mean of all programs : 52%)

Rather low implication of young researchers in the mobilities

Rather low rate of average annual publications for young researchers involved in the projects (0,29)



COMPARISON SURVEY 2020 (2005-2018) – SURVEY 2024 (2019-2022)

- Response rate : 2020 : 59% (86 responses), 2024 : 51% (20 responses)
- Stability in the average annual number of applications (survey 1 : 35, survey 2 : 34)
- Stability in the number of selected projects carried by young researchers (32% vs 30%)
- Stability in the number of women applicants (25% vs 25%) and laureates (28% vs 27%)
- Better participation of young french researchers to the projects (+18%) but apparent decrease for their involvement in the scientific coproductions (-8%)
- Stability in the outgoing mobilities of french young researchers (33%) and the incoming mobilities of slovenian young researchers (42%)
- Stability in the outgoing mobilities for women researchers (30%)
- Stability in the average annual number of scientific coproductions per project (1,2)
- Small increase of the continuation of cooperations (+3%)
- Small increase in the continuation of cooperations with financing (+2%)

PRELIMINARY RECOMMANDATIONS

- Encourage new cooperations (only 31% of cooperations with a new partner)
- Enhance scientific coproductions (from the surveys : 32% of projects with no scientific coproduction)
- Increase the participation of young researchers to the scientific coproductions (only 30% of the scientific coproductions involve at least one young researcher)
- Promote both outgoing (33%) and incoming (42%) mobilities of young researchers



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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.

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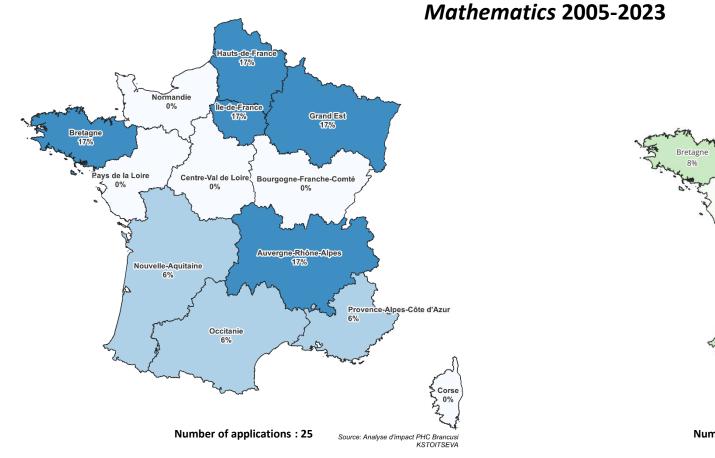
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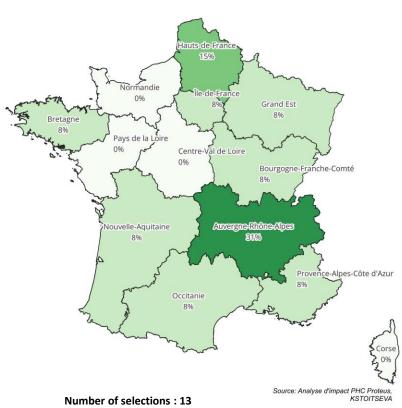
ANNEX REGIONALISATION AND SCIENTIFIC DOMAINS (CARTOGRAPHIES)



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PHC PROTEUS Regional percentages of applications and selections Mathematics 2005, 2022



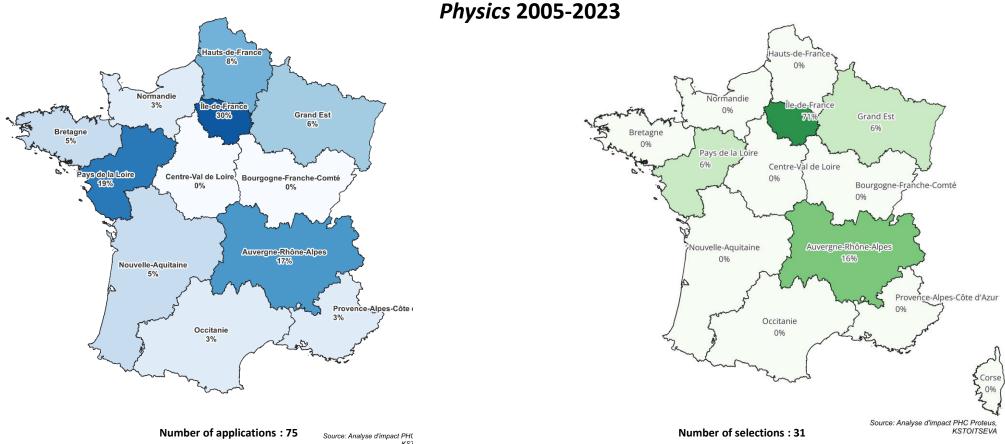


Nine regions are concerned both for applications and selections. Auvergne-Rhône-Alpes is ahead.



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PHC PROTEUS Regional percentages of applications and selections Physics 2005-2023

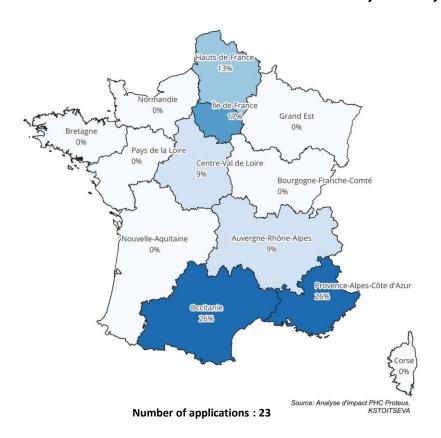


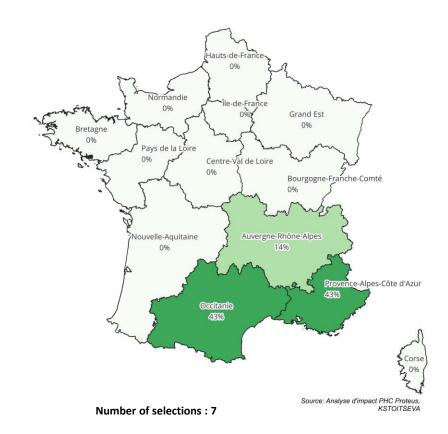
Six regions are concerned for applications with Ile-de-France ahead but only four benefit selections (with Ile-de-France still ahead)



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PHC PROTEUS Regional percentages of applications and selections *Marine, Earth, Planet Sciences* 2005-2023



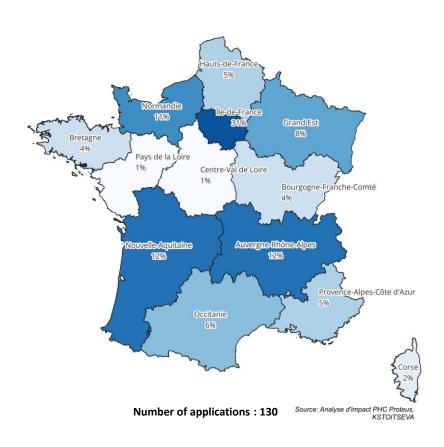


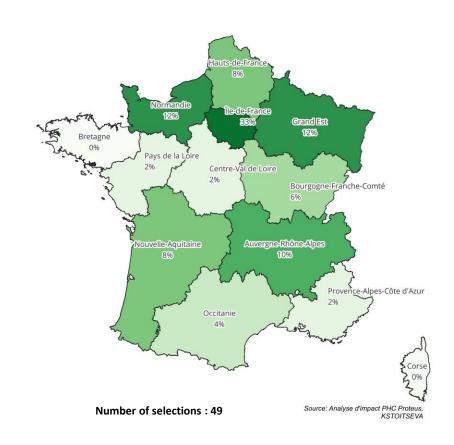
Six regions are concerned for applications but only three benefit selections (with Occitanie and Provence-Alpes-Côte d'Azur ahead)



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PHC PROTEUS Regional percentages of applications and selections Chemistry 2005-2023



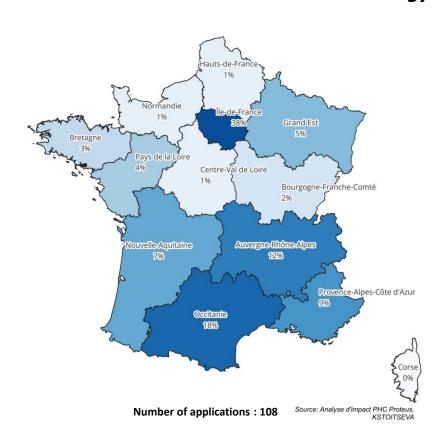


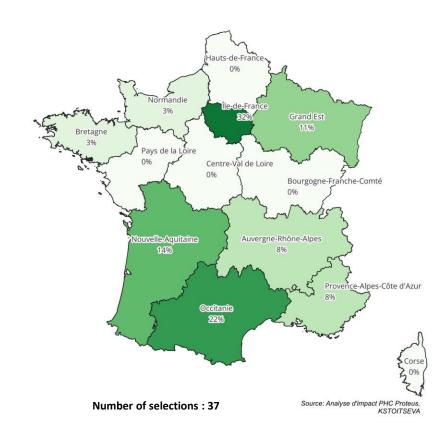
Thirteen regions are concerned for applications with Ile-de-France ahead both for applications and selections



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PHC PROTEUS Regional percentages of applications and selections Biology and Health 2005-2023



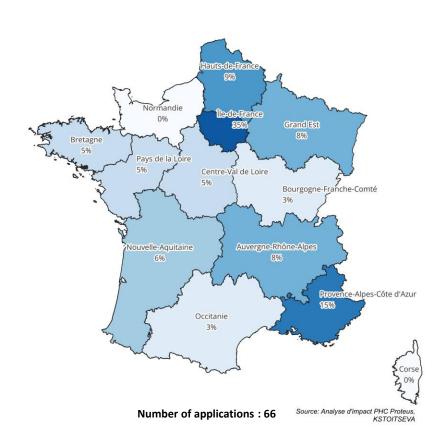


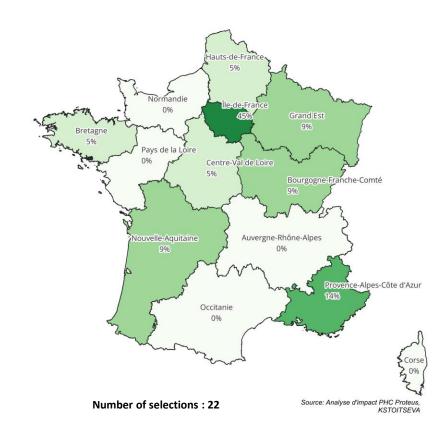
Twelve regions are concerned for applications with Ile-de-France ahead but only eight benefit selections (with Ile-de-France still ahead)



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PHC PROTEUS Regional percentages of applications and selections Humanities 2005-2023



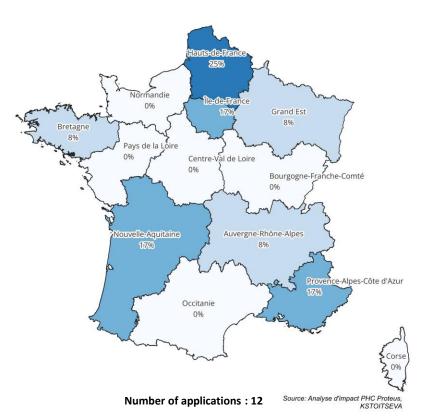


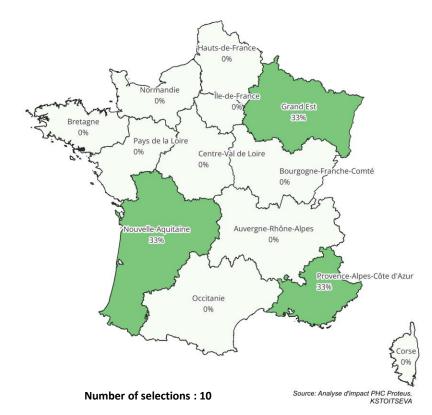
Eleven regions are concerned for applications with Ile-de-France ahead but only eight benefit selections (with Ile-de-France still ahead)



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PHC PROTEUS Regional percentages of applications and selections Social Sciences 2005-2023



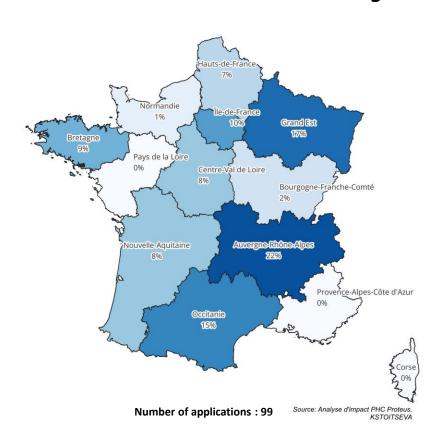


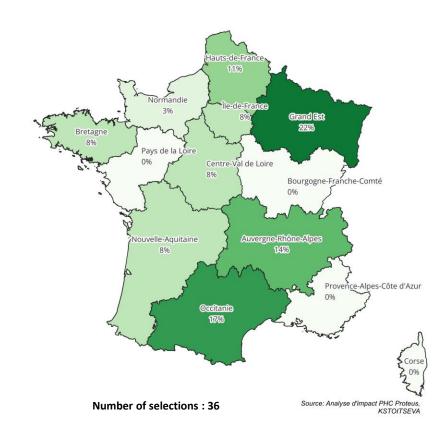
Seven regions are concerned for applications with Hauts-de-France ahead but only three benefit selections (Grand Est, Nouvelle Aquitaine, Provence-Alpes-Côte d'Azur)



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PHC PROTEUS Regional percentages of applications and selections Engineering Sciences 2005-2023



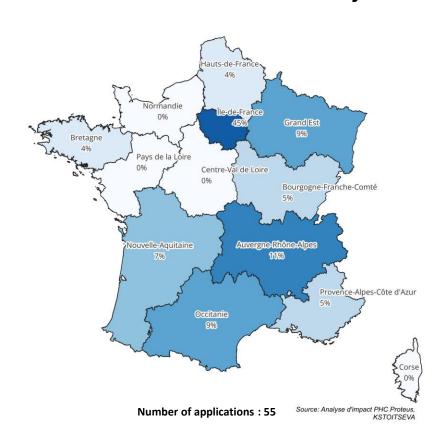


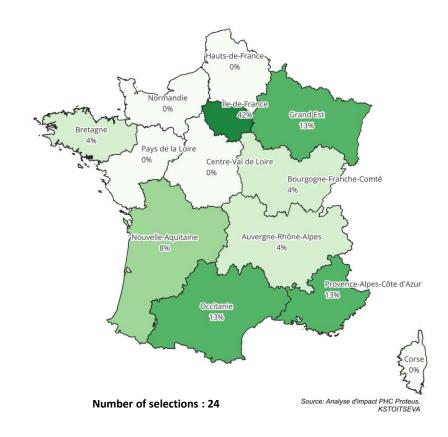
Ten regions are concerned for applications with Auvergne-Rhône-Alpes ahead. Nine regions benefit selections (with Grand Est ahead)



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PHC PROTEUS Regional percentages of applications and selections Information technology 2005-2023



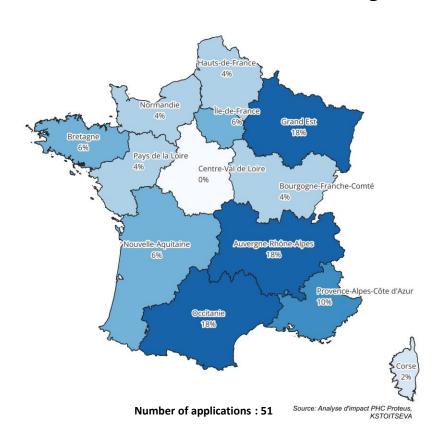


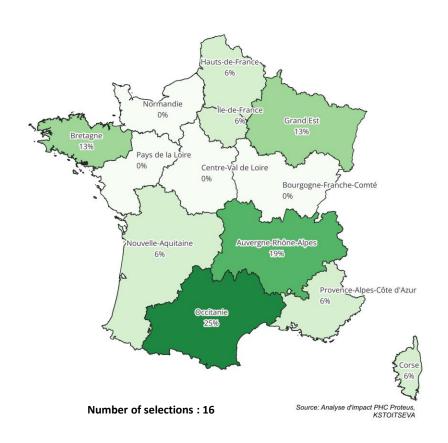
Nine regions are concerned for applications with Ile-de-France ahead. Eight benefit selections (with Ile-de-France still ahead)



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PHC PROTEUS Regional percentages of applications and selections Agronomy/Ecology 2005-2023





Thirteen regions are concerned for selections. Only nine benefit selections (with Occitanie ahead)