

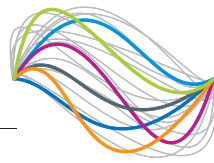


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FRANÇAISE

*Liberté
Égalité
Fraternité*

UBFC

UNIVERSITÉ
BOURGOGNE FRANCHE-COMTÉ



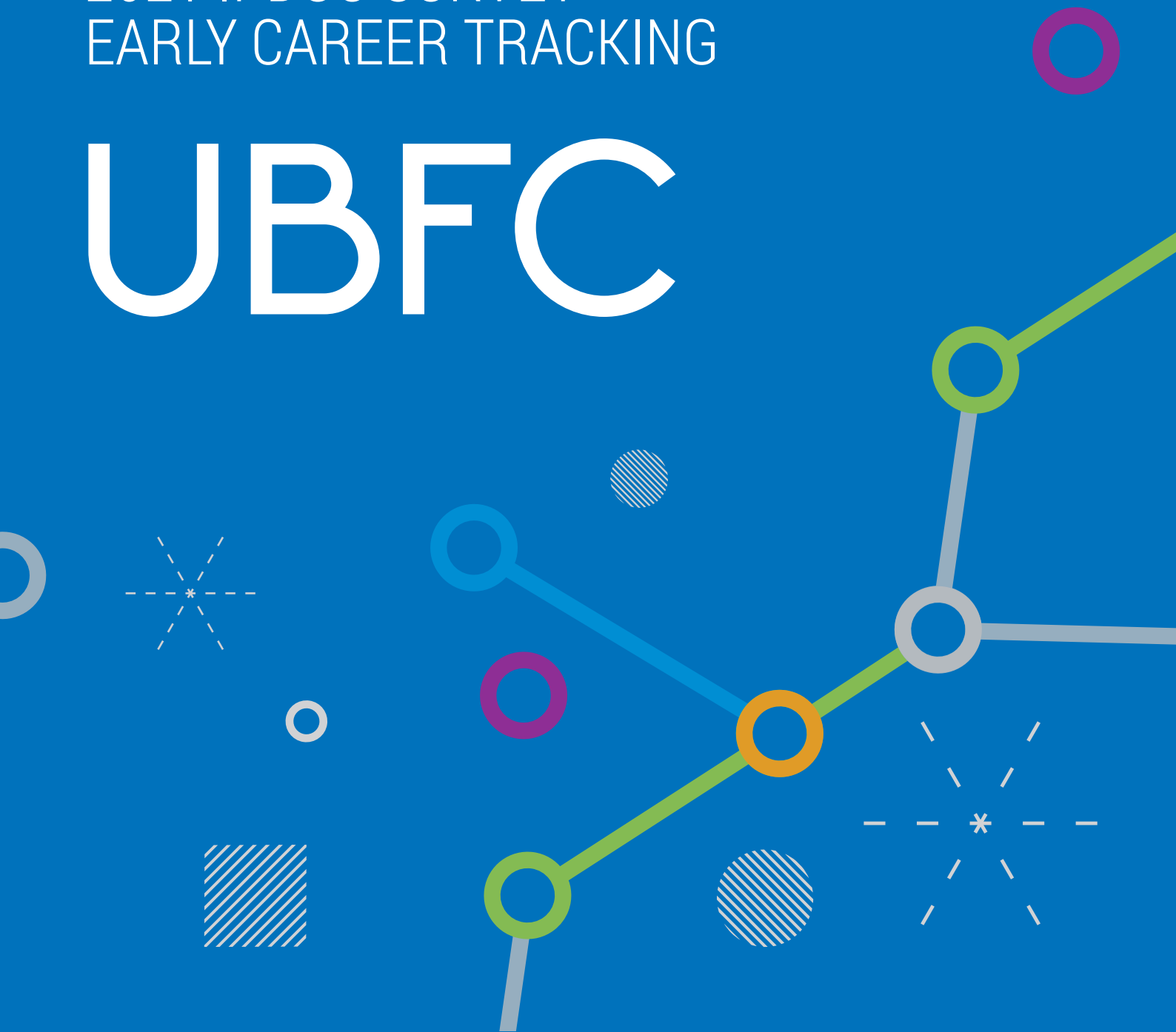
COLLÈGE DOCTORAL



VOTRE DOCTORAT
EN BOURGOGNE-
FRANCHE-COMTÉ

UBFC PhDs
2021 IPDOC SURVEY
EARLY CAREER TRACKING

UBFC




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Embarking on the path to a PhD means making a commitment to a demanding program — one that leads to the highest degree possible in France and abroad. The UBFC Doctoral College sets the doctoral policy in the Bourgogne-Franche-Comté region and is responsible for its quality. To do so, the Doctoral College coordinates, standardizes and federates the actions undertaken by the six Doctoral Schools: Environnements-Santé; Carnot-Pasteur; Sciences Physiques pour l'Ingénieur et Microtechniques; Droit, Gestion, Sciences Economiques et Politique; Lettres Communication Langues Arts; Sociétés, Espaces, Pratiques, Temps. During the program, each PhD candidate acquires major skills. Today, these skills are listed in a national register. Candidates acquire them through research in the laboratory and complementary coursework. We believe that acquisition of such skills is a decisive asset for early career PhDs as they continue their journey, and contribute to facilitating post-doctoral occupational integration.*

Occupational integration is the purpose of the 2021 survey, whose results are presented in this publication. Surveys like these are conducted regularly to obtain invaluable information on the conditions in which participants obtained their PhD degree, and their career paths. In our case, we surveyed PhD holders from the Bourgogne-Franche-Comté region. The success of this survey depended on active participation from alumni, and its aim is to serve current PhD candidates and provide food for thought for their career objectives.

Likewise, the results of this survey will also serve to improve the quality of our doctorate programs.



Thierry Rigaud

Director of the UBFC Doctoral College

*Environment and Health; Physics, Chemistry and Mathematics; Engineering Sciences and Microtechnologies; Law, Management, Economics and Political Sciences; Literature, Communication, Languages, Arts; Society, Space, Practices, Time.

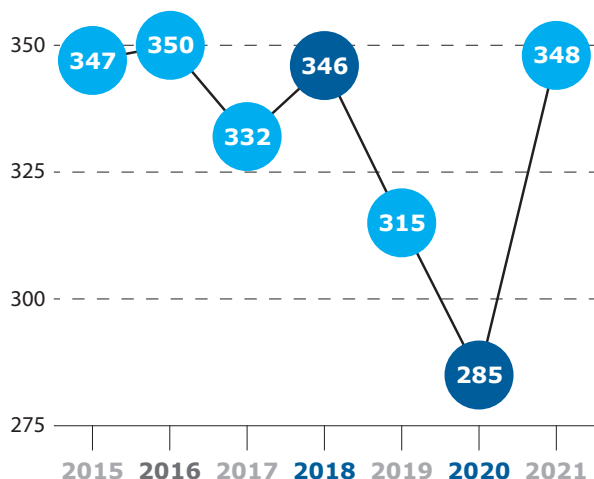
ONE SURVEY, MANY PhDs

Through IPDoc surveys, the French Ministry of Higher Education and Research seeks to find out more about PhD career pathways once graduates have received their doctoral degree (Bac+8 level). The regional scope of this study allows the status of graduates from Université Bourgogne Franche-Comté to be ascertained both before, during, and after their PhD experience.

○ HOW THE SURVEY WAS CONDUCTED

In December 2021, the survey was launched as an online questionnaire for graduates from the 2018 and 2020 classes. It was open for six months. During this time, email reminders were sent out, and a phone banking campaign set up by the ministry also took place in June 2022. The survey was composed of a wide variety of questions, some of which were mandatory. Respondents had the option to answer only the required set of questions. In this IPDoc 2021 survey report, the UBFC Doctoral College presents an overview of graduates' professional situation as of December 1, 2021, or one year (S+1) and three years (S+3) after their PhD defense. Cohorts were made up of 346 graduates from the 2018 class (S+3) and 285 graduates from the 2020 class (S+1).*

Number of UBFC PhDs Since 2016, by Year of Dissertation Defense

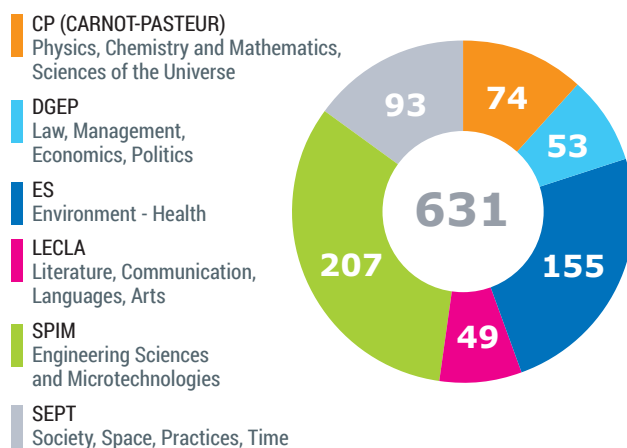


○ UBFC DOCTORAL PROGRAM GRADUATES

The number of UBFC graduates follows the national trend showing a gradual fall in number of PhDs since 2009¹. In 2020, the COVID-19 pandemic had a high impact on the number of defenses over this period, which were often pushed back to the following year. A sharp drop was observed both at the national level (-15%²) and regional level (-18% for UBFC between 2018 and 2020, but only -9.5% between 2019 and 2020). The 15% drop observed at the national level was found to be exceptional, since it was made up for in 2021³.

At UBFC, 346 PhDs candidates defended their PhDs in 2018 versus 285 in 2020. This edition of the IPDoc survey studies these graduates. Before presenting the results, we give a snapshot of the 631 total PhDs from 2018 and 2020 who were invited to participate in this survey.

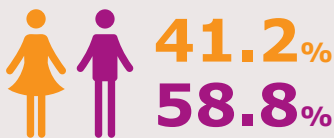
UBFC PhD Enrollment in 2018 and 2020, by Doctoral School



In this publication, N and N will be used to designate enrollment for the relevant populations.
 1. In 2009, 81,243 individuals were enrolled in doctoral programs. In 2020, this number drops to 70,741 (Source: MESR-DGESIP/DGRI-SIES).
 2. SIES Flash Memo, "Fort impact de la crise sanitaire sur le nombre de docteurs diplômés en 2020 (-15 %)", no. 9, Paris, MESR, May 2021.
 3. SIES Flash Memo, "Les docteurs diplômés en 2021 : vers un retour à la situation antérieur à la crise sanitaire", no. 16, Paris, MESR, June 2022.

● **UBFC PhD GENDER AND NATIONALITY IN 2018 & 2020**

58.8% of PhDs are men. The vast majority of the 631 PhDs are from European countries (60.4%). The ever-increasing share of PhDs from non-European countries shows that this population is becoming more international. The African and Asian continents represent the highest numbers and the highest growth, with 22.2% and 13.6% respectively. More specifically, out of the 631 PhDs, 55.6% are from France, but also from countries such as China (7%), Lebanon and Tunisia (each 4.4%), Algeria (3%) and Italy (2.2%).



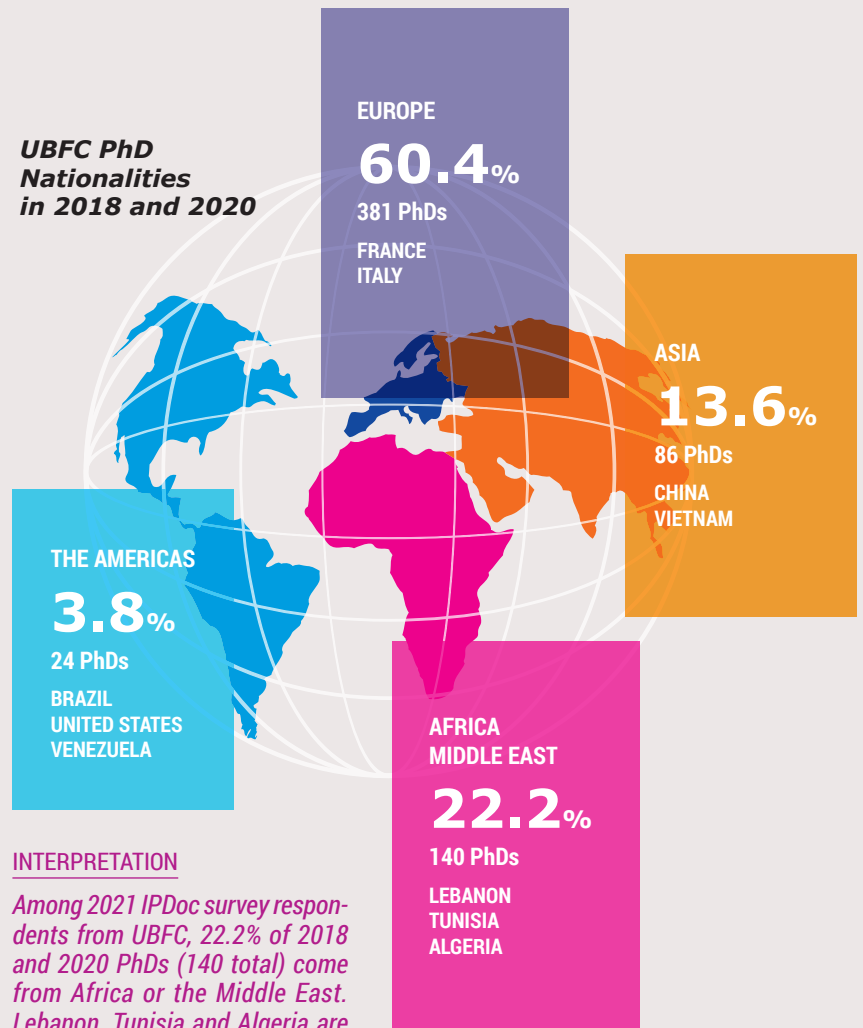
Share of Women and Men Among UBFC PhDs in 2018 and 2020

26.2 YEARS OLD

Median Age at Enrollment

Candidates enrolled at the median age of 26.2 years old, and defended their dissertation at the median age of 30.1 years old. For half of PhDs, it took less than four years to complete their doctorate. This median time-to-degree disguises the wide variety in the time that participants spent working on their PhDs. For example, doctoral schools in experimental sciences have a time-to-degree that is slightly longer than three years. Median time-to-degree for the CP doctoral school is 3.21 years; for other schools, the median time to degree is around five years.

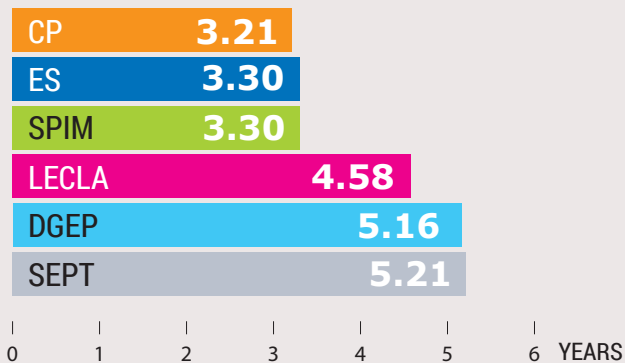
UBFC PhD Nationalities in 2018 and 2020



INTERPRETATION

Among 2021 IPDoc survey respondents from UBFC, 22.2% of 2018 and 2020 PhDs (140 total) come from Africa or the Middle East. Lebanon, Tunisia and Algeria are the most well-represented countries.

Median Time-To-Degree by Doctoral School

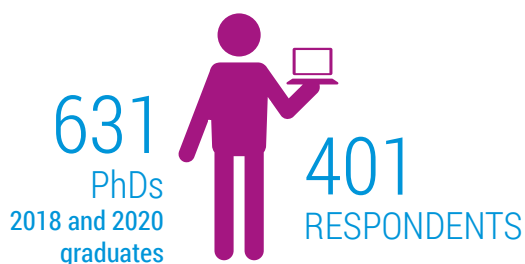


○ EVER HIGHER PARTICIPATION RATES

Out of the 631 people who were invited to take part in the survey, 401 responded, equating to an overall return rate of 63.5%, which is higher than for previous surveys conducted at UBFC. The participation rate for PhD holders at S+1, one year after dissertation defense, reached 70.9%, compared to 57.5% for PhD holders at S+3, three years after dissertation defense. One possible reason for this difference may be changes in contact information for PhD holders at S+3, leading to problems receiving the survey invitation and reminders.

UBFC 2021 IPDoc Survey Participation Rate

63.5%



🔍 The total respondents by field are detailed on page 18, in the section entitled "Occupational Integration Rate."

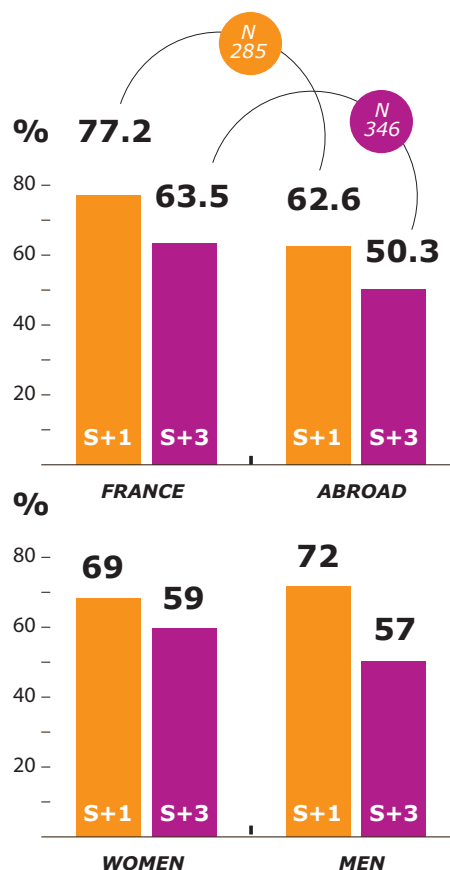
● RESPONDENT ORIGIN AND GENDER

For the S+1 cohort, 77.2% of French graduates responded to the survey, compared to 62.6% of foreign graduates.

In the 2021 IPDoc survey, no gender disparity is observed among respondents. In each cohort, we observed nearly the same proportions for each type of population.

For the S+1 cohort, 72% of male graduates responded to the survey, compared to 69% of female graduates.

Participation Rates According to Respondent Nationality and Gender, in %



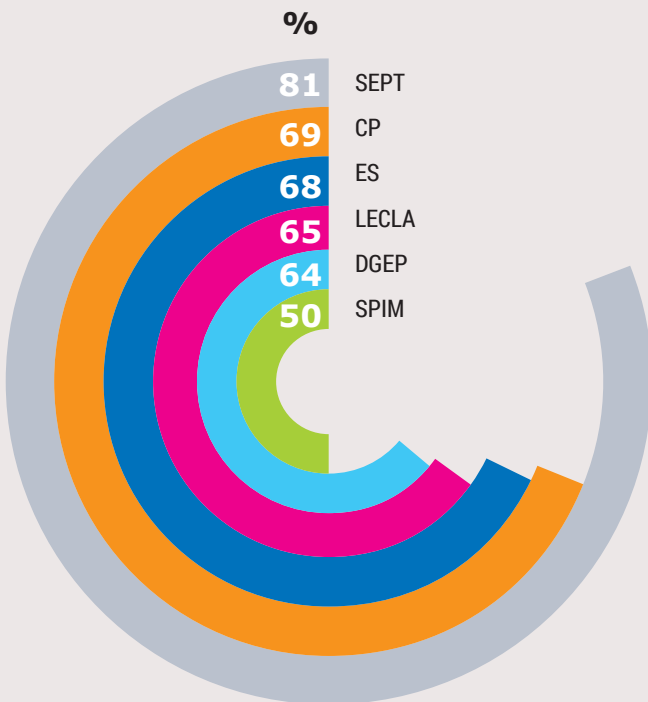
● **PARTICIPATION BY DOCTORAL SCHOOL**

An average of 63.5% of UBFC PhDs from the S+1 and S+3 cohorts answered the survey. The SEPT Doctoral School recorded the highest participation rate, with 81% of PhDs responding to the survey.

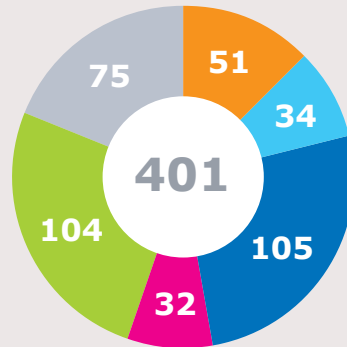
Class of 2018 & 2020	Graduates	Respondents
CP	74	51
DGEP	53	34
ES	155	105
LECLA	49	32
SPIM	207	104
SEPT	93	75
Total	631	401

Many graduates from the SPIM Doctoral School also responded (104 total), recording a lower participation rate with respect to the size of their doctoral school, since only 50% from total enrollment responded. This may be explained by the high number of foreign PhD holders in this school, with whom contact is more easily lost after dissertation defense.

Average Participation Rate by Doctoral School, at S+1 and S+3



Number of Respondents by Doctoral School



- CP
Carnot-Pasteur
- DGEP
Law, Management, Economics, Politics
- ES
Environment - Health
- LECLA
Literature, Communication, Languages, Arts
- SPIM
Engineering Sciences and Microtechnologies
- SEPT
Society, Space, Practices, Time

INTERPRETATION

Out of the 93 PhDs from the SEPT Doctoral School in 2018 and 2020, 75 responded to the survey, for an 81% participation rate.

Out of the 207 PhDs from the SPIM Doctoral School in 2018 and 2020, 104 responded to the survey, for a 50% participation rate.

2021 IPDOC SURVEY - UBFC

BEFORE & DURING THE PhD

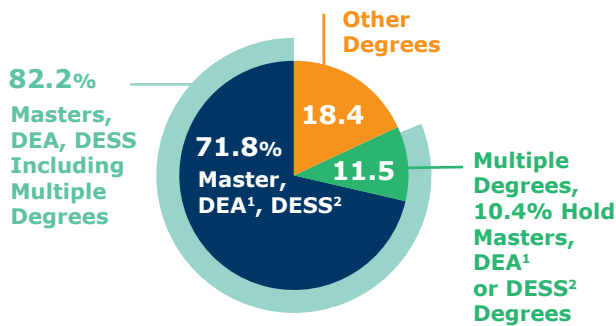


DOCTORAL PROGRAM ADMISSION REQUIREMENTS AND FINANCIAL SUPPORT

A MAJORITY OF MASTERS AND FRENCH UNIVERSITY DEGREES

Doctoral programs are open to candidates with a wide variety of degrees. Most of the UBFC PhD holders who responded to the 2021 IPDoc survey had exclusively a Masters, DEA¹ or DESS² degree obtained in France (71.8%). When candidates with multiple degrees are added in, the rate increases to 82.2%. For example, a person might have a Masters and a degree from an engineering school or one in medicine, pharmacy, or veterinary medicine.

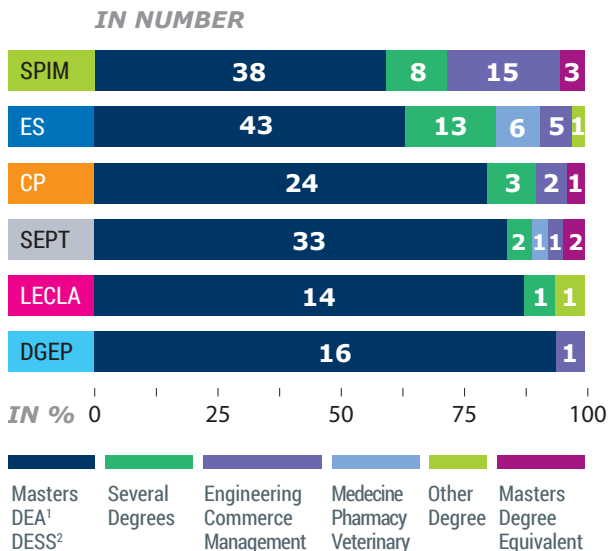
Degree at Admission



N*=234 / NR**=167

Masters, DEA, DESS	71.8%
Multiple degrees	11.5%
School of Engineering, Commerce or Management	10.3%
Medicine, pharmacy or veterinary medicine	3.0%
Masters equivalent	2.5%
Another degree	0.9%

Degree at Admission, by Doctoral School



INTERPRETATION

Within the DGEP school, 94.1% of PhDs surveyed (16 total), had only a Masters degree. This percentage is smaller for the SPIM and ES doctoral schools, whose graduates have the most number of degrees from competitive entry specialized universities. Degrees in medicine, pharmacy or veterinary medicine are the most common at ES. Finally, DGEP excluded, candidates with multiple diplomas were found in all doctoral schools (between 5-20% of all enrolled). Most have a Masters and a degree in Engineering, or a Masters and a degree in Medicine.



○ PhD FUNDING

● *MULTIPLE SOURCES OF FUNDING, A MAJORITY CONNECTED TO RESEARCH*

Over half of PhDs (50.7%) financed their doctorate solely through funding for research (public or private funding, or a mix of the two). A non-negligible part of graduates completed their doctorate supported only by a job unrelated to their studies (8.8%), while 6.5% financed it solely through personal resources.

Many doctoral program participants (34%) benefited from several types of funding over the course of their doctorate.

For example, positions as Temporary Lecturer and Research Assistants (ATER) complemented the financial support received (6% of respondents) or the personal resources contributed (3.7% of respondents).

Other doctoral program participants also had to contribute personal resources in addition to the financial support received (6.5%) or work at a job unrelated to their studies (8.4%). Around 9% of doctoral program participants indicated having a more complex financial support package.

Single Funding Sources



**Funding
for Research**

50.7%



**Job Unrelated
to Research**

8.8%



**Personal
Resources**

6.5%



**Multiple
Funding
Sources**



34%



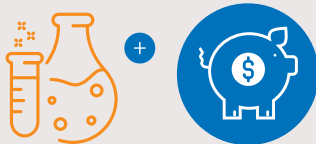
6%

**Funding for Research
+ ATER**



3.7%

**Personal Resources
+ ATER**



6.5%

**Funding for Research
+ Personal Resources**



8.4%

**Personal Resources
+ Unrelated Job**



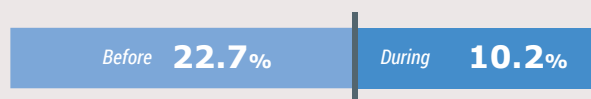
9.3%

**Other Combinations
of Financial Support**

● EMPLOYMENT STATUS BEFORE & DURING THE PROGRAM

The high rates of financial support unrelated to research may be explained, in part, by the fact that a certain number of doctoral program participants already had a professional activity at the time they enrolled, and completed their doctorate while working.

Out of all respondents, 22.7% had jobs before beginning the doctoral program (not including student jobs). Among these respondents, 64.1% kept this job while completing their doctorate, corresponding to around 10.2% of all survey respondents.



Finally, frequently, the funding for research received does not cover the whole period of the doctoral program. In this case, other unrelated sources of financial support are sought. Moreover, even if the lack of financial support tends to decrease from year to year, some PhD candidates have no financial support at enrollment — particularly in the human and social sciences.

Among the PhDs who had careers before the doctoral program, 63.9% report having more than two years of work experience. This high percentage may be explained, in particular, by the health care professionals who made up part of the doctoral program participants. In addition, other participants include teachers wishing to go deeper in their craft by completing a PhD.

● FUNDING BY FIELD

Some fields within the human and social sciences (philosophy and arts; law, legal and political sciences; languages and literature; human and social sciences; sociology, demography and history and geography) show lower rates of funding than those for experimental science disciplines. These fields therefore reflect higher rates for funding unrelated to research.

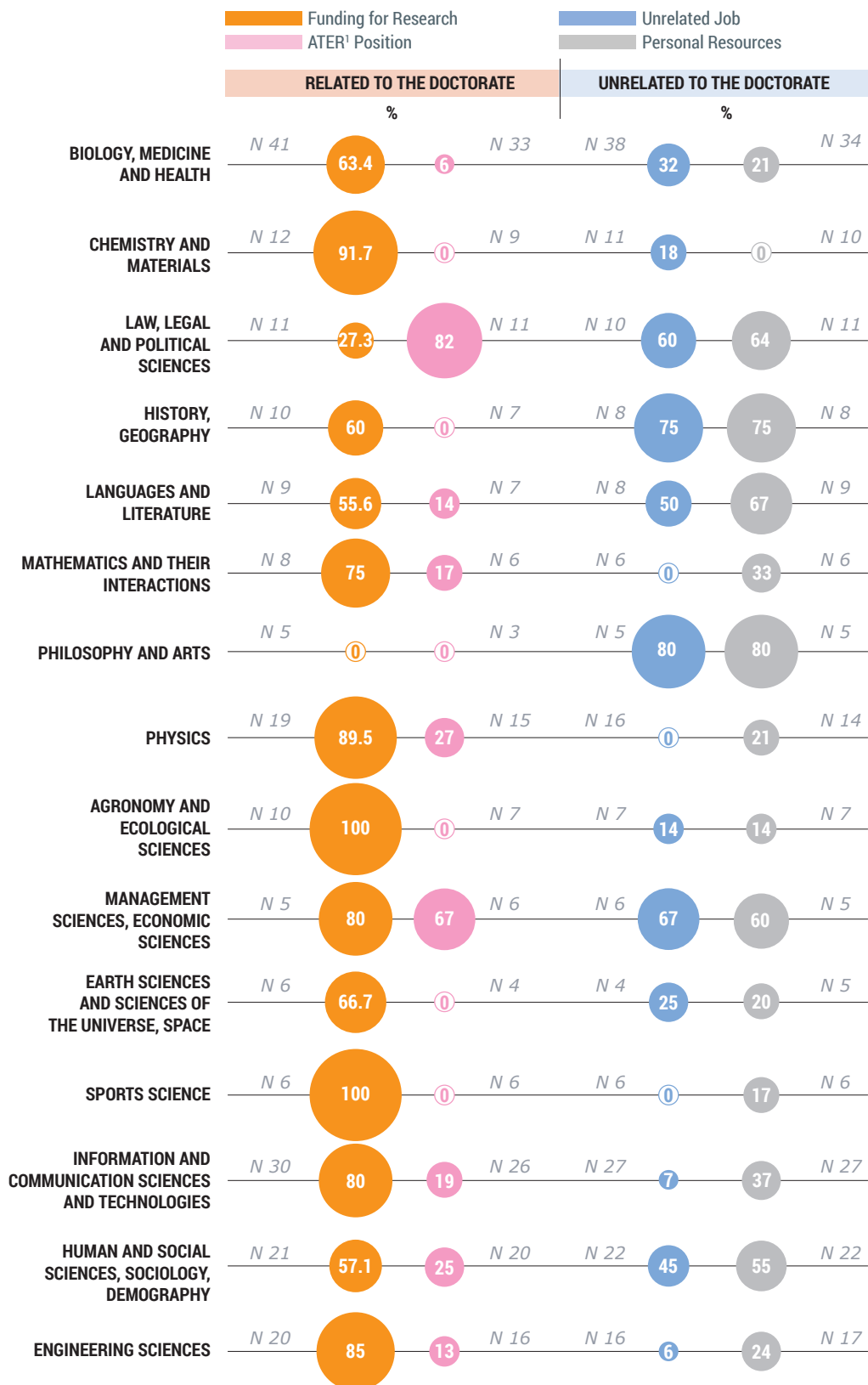
INTERPRETATION OF THE FOLLOWING INFOGRAPHIC

The percentages give the proportion of respondents who benefited from funding related or not related to the doctoral program. Also indicated: funding for research, ATER employment, jobs unrelated to research, or personal resources.

N refers to the number of respondents.

The differing numbers of respondents can be explained by the possibility of multiple types of financial support over the course of the doctoral program.

Types of Financial Support According to Field



1. Attaché Temporaire d'Enseignement et de Recherche, Temporary Lecturer and Research Assistant.

SOURCES OF FUNDING FOR RESEARCH

A MAJORITY OF PUBLIC FUNDS

A type of funding for research available to finance a PhD is compensation for doctoral research. Different sources of funding for research exist: French public funds (national, regional, ANR¹, PIA², etc.), French private funds, mixed French public/private funds (CIFRE³, etc.), and lastly, foreign funding (European Commission, etc.).

While the numbers have decreased steadily with respect to previous IPDoc surveys, French public funds make up a very large share of the funding for research received by UBFC graduates who responded to the survey in 2021.

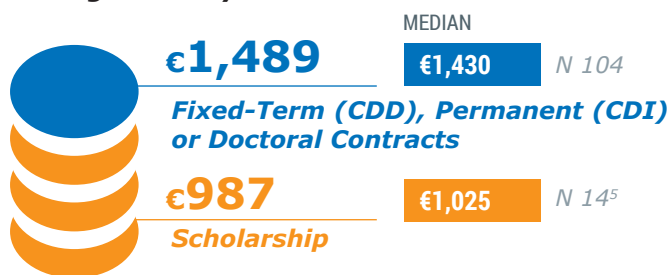
These funds represented 75.6% of financial support in 2015 and 70.2% in 2017. Today, French public funds represent 64.6% of the funds allotted to graduates. Growth in the large proportion of international funds has also been observed since 2018 (23.6%). In the mixed funding category (public & private), out of the total 8.1%, 5.6% are CIFRE³.

EMPLOYMENT CONTRACTS AND COMPENSATION

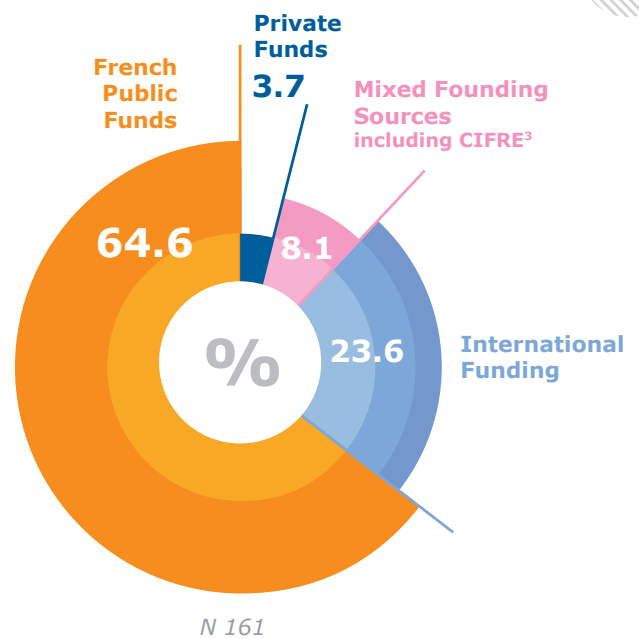
Among the PhDs who received funding for research, the 104 respondents with employment contracts received an average net monthly salary of €1,489.

The 14 respondents who were on scholarship only received a net monthly amount of €987.

Average Monthly Net Amount

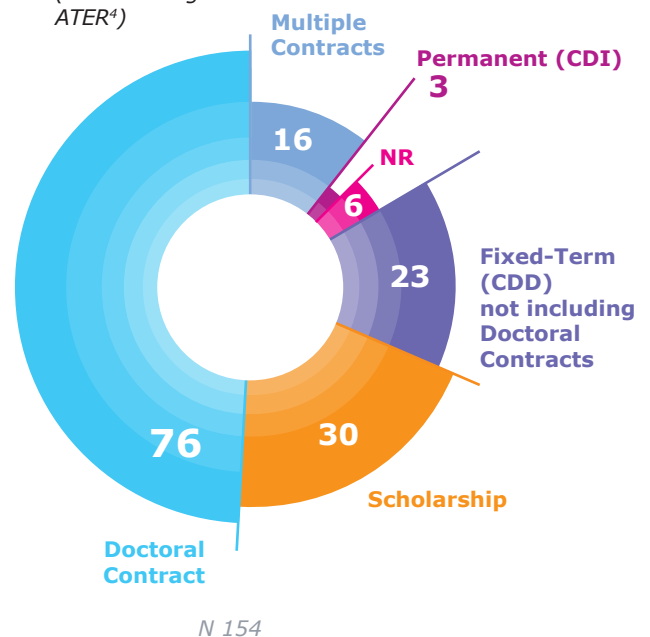


Sources of Funding for Research



Types of Employment Contracts and Funding for Research

(Not including ATER⁴)

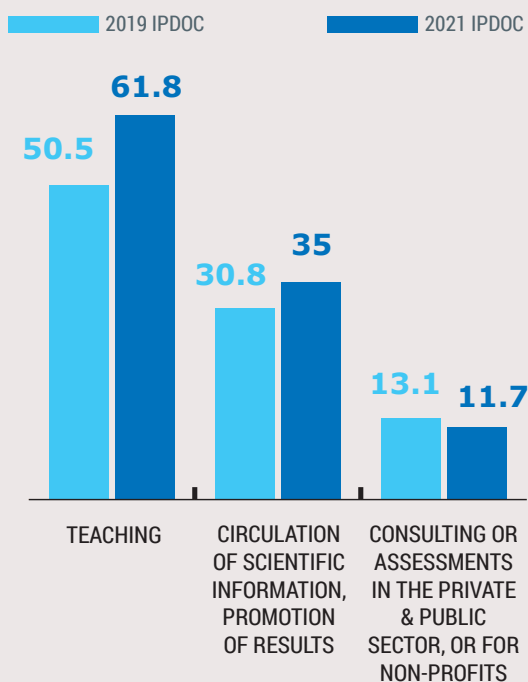


○ COMPLEMENTARY APPOINTMENTS

During their doctorate, PhD candidates may be engaged to perform tasks other than those related to preparing their PhD research. These paid positions can involve teaching, expert assessments, promoting research results, and circulating scientific information. In particular, teaching is an essential way to optimize employability in higher education. In this case, PhDs can do some teaching (lab, lecture courses, discussion sections, seminar) depending on university needs and the individual's expectations and skills.

This particular professional challenge may be the reason that among PhDs who responded to the item on teaching appointments (excluding ATER), a majority reported having done some. This was true for the current IPDoc survey as for the one conducted in 2019. Out of the 217 respondents to the 2021 IPDoc survey, 61.8% did some teaching during their doctoral program versus 50.5% of the 279 respondents to the 2019 IPDoc survey. This represents an increase of 11.3 points.

Change in Complementary Appointments for PhDs Surveyed, in %



From the same data, we also observe an increase in jobs involving circulation of scientific information, which rose from 30.8% to 35%. Consulting or assessment jobs seem to have experienced a slight drop, accounting for 11.7% of complementary missions reported by respondents.

○ DUAL DEGREES UNDER JOINT SUPERVISION

Dual degree programs under joint supervision foster international mobility by developing scientific cooperation between French and foreign research teams. Each PhD candidate participating in a dual degree program carries out their work under supervision by a faculty advisor from both countries. Once the doctorate has been completed, two degrees are granted, one from each institution.

21 PhDs

reported having carried out their doctoral work in a dual degree program, or 5% of respondents.



A wide variety of dual degree programs exist in European, Asian, and African countries. There are 21 degree holders who reported having carried out their doctoral work in a dual degree program (5% of respondents). During the previous IPDoc survey conducted in 2018, dual degree program participants represented 10%. Dual degree PhD candidates may have had more problems completing their dissertation defense than other participants because of the pandemic in 2020, which explains the drop in numbers.

2021 IPDOC SURVEY - UBFC

AFTER THE PhD



TRACKING UBFC PhDs AFTER GRADUATION

A MAJORITY OF PhDs PURSUE FRENCH UNIVERSITY COUNCIL QUALIFICATION (CNU)

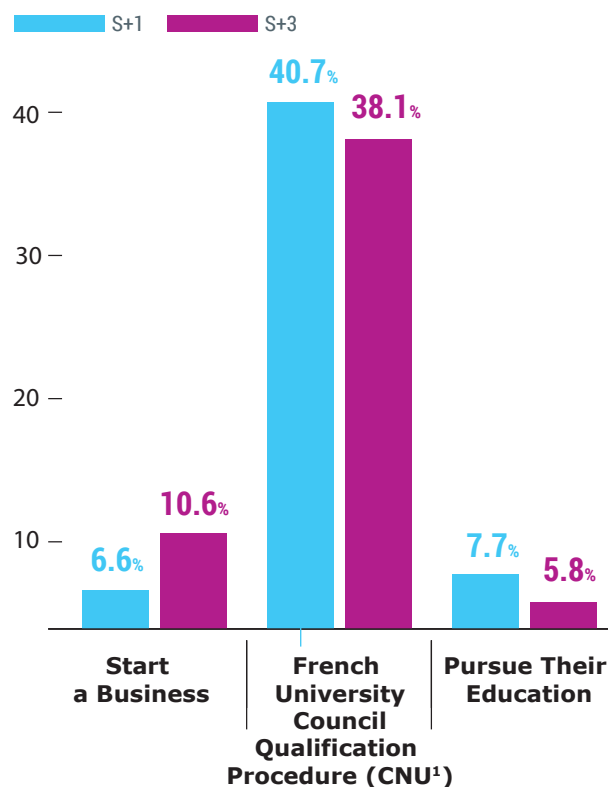
After dissertation defense, the professional outlooks for PhDs vary. While the majority of PhDs are quick to seek out employment, the period after their doctorate is a time when many prepare for the CNU¹ qualification procedure, start a business, or decide to pursue their education. French University Council qualification (CNU) is a mandatory step toward eligibility for the French University Lecturer (MCF) corps. Many PhDs choose to apply for this qualification. Out of respondents who did, 40.7% applied in the first year after dissertation defense, and 81% of these candidates were qualified².

After the PhD, graduates often choose to continue their training. In this survey, 6.7% of respondents enrolled in programs that would enable them to build their skill set (40%), to change course (28%) or to specialize further (16%). Most often, graduates on this path do so in the first year following dissertation defense. Among survey respondents who decided to start a business, 6.6% did so the year after dissertation defense (S+1) and 10.6% within three years (S+3).

AN OCCUPATIONAL INTEGRATION RATE ON THE RISE AT S+3, WITH A FEW DISPARITIES BY FIELD

By taking account of all the PhDs surveyed (2018 and 2020 cohorts), the occupational integration rate³ for UBFC graduates one year after dissertation defense is 93.3%. It increases to 97.2% three years after dissertation defense. The S+3 rate has progressed steadily since the 2018 IPDoc survey (+3.9 points). What's more, it is considerably higher than the national occupational integration rate recorded for 2108 PhDs three years later (92.1%). At S+3, the occupational integration rate evolves as follows: 2018 - 91%, 2019 - 96.8%, 2021 - 93.3%. As may be observed at the national level⁴, these numbers do not seem to indicate a significant impact from the 2020 COVID-19 pandemic on recruitment of UBFC PhDs in 2021⁴.

Professional Pathways After Dissertation Defense



81% of PhDs obtained CNU¹ qualification

40% of selected programs aimed to add a skill

Occupational Integration Rate for 2018 Graduates at S+3 and 2020 Graduates at S+1

93.3%

1 year after dissertation defense (S+1)

3 years after dissertation defense (S+3)

France (S+3): 92.1%

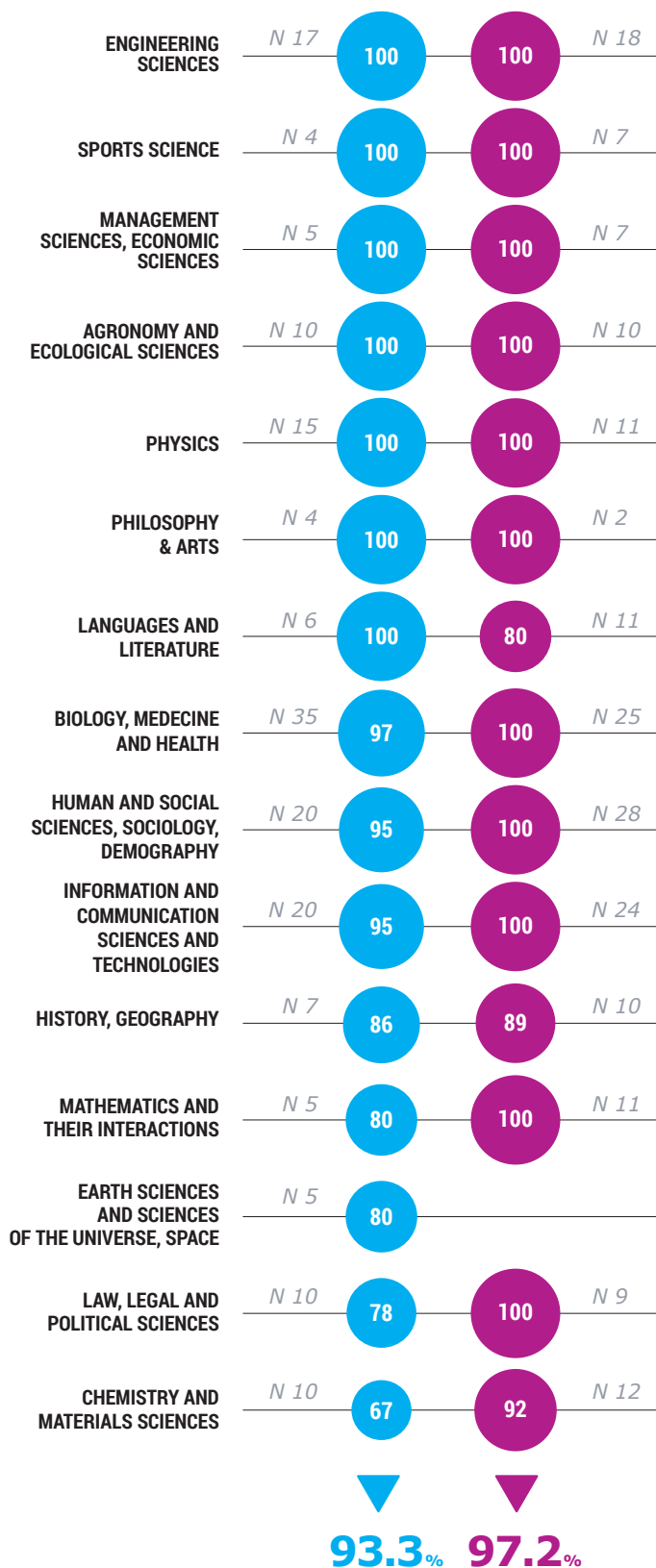
97.2%

N 370

1. French National University Council - 2. Respondents at S+1 vary from 181 to 183, and at S+3 from 188 to 190. - 3. The occupational integration rate is calculated for the employed population and as such does not include people continuing their studies or those not looking for a job - 4. SIES Informational Memo, "Faible impact de la crise sanitaire sur l'insertion professionnelle à trois ans des docteurs", no. 8, Paris, MESR, October 2022.

Occupational Integration Rate by Field According to the Number of Respondents (N), 1 and 3 Years After Dissertation Defense, in %

■ S+1 ■ S+3



While no gender disparities are observed in the UBFC graduate occupational integration rates, disparities exist by field, with the S+1 occupational integration rate ranges from 67% to 100%. Some fields show high integration rates, with Sciences and ITC leading the pack, then Engineering Sciences; Biology, Medicine & Health; and Social Sciences, Sociology, and Demography. These high occupational integration rates are solid figures, given the large number of respondents.

On the other hand, other fields are less well-represented: Earth Sciences and Sciences of the Universe, Space; Philosophy and Arts – and even Management Sciences, and Economic Sciences. The high occupational integration rates for these fields are to be interpreted with more caution, given the low response rate from the PhDs surveyed (N).

Occupational Integration Rate for UBFC Class of 2018 PhDs

91.8%

1 year after dissertation defense (S+1)

3 years after dissertation defense (S+3)

France (S+3): 92.1%

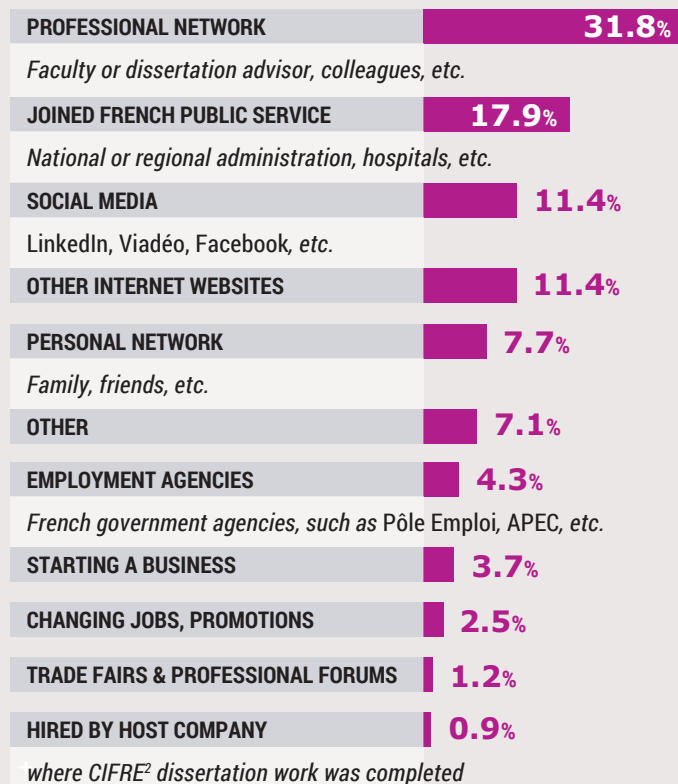
N 183

97.2%

By comparing S+1 and S+3 for the 2018 cohort, we can see the progress in terms of employability for the same individuals (N=183). Tracking this information over time allows us to notice the change in rates for the same cohort. It changes from 91.8% at S+1, to 97.2% at S+3, thus confirming the data mentioned above. At the national level, three years after dissertation defense, the occupational integration rate for the 2018 class is 92.1%¹.

Rates for Different Employment Pathways

N 324



PROFESSIONAL NETWORKS, THE LEADING SOURCE OF EMPLOYMENT

Professional networks remain the leading way for PhDs to get a job (31.8%). More often, faculty or dissertation advisors, and even former employees, forward job postings or offers.

For 17.9% of respondents, taking the French civil service competitive entry examination turned out to be a good way to find a job.

This general finding is similar to the outcomes of the 2018 IPDoc survey. However, on one hand, we observed a decrease of 11 points in the French civil service exam as a path to employment. On the other, we note strong growth in turning to new ways of contacting recruiters, such as social media (11.4%).

CIFRE AND EMPLOYABILITY

When the results from last two IPDoc surveys in 2109 and 2021 are combined, a total of 32 respondents benefited from the CIFRE² program. After graduating, 2 were still looking for a job (6.2%), 7 have been hired by the company where they did their doctoral research (21.9%) and 5 have started their own business (15.6%).

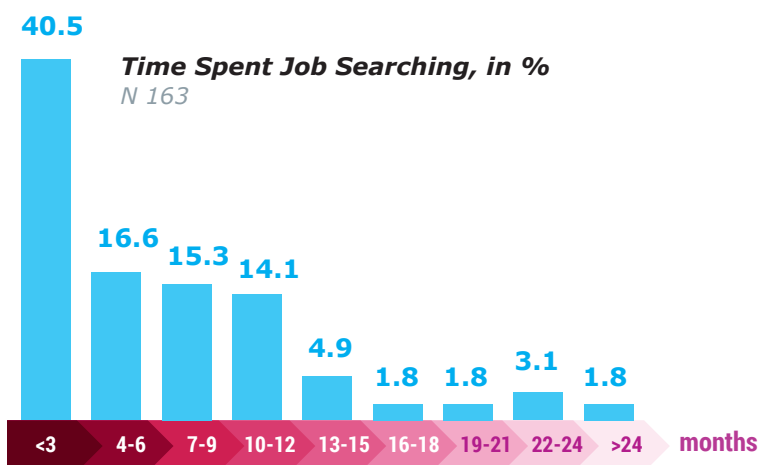
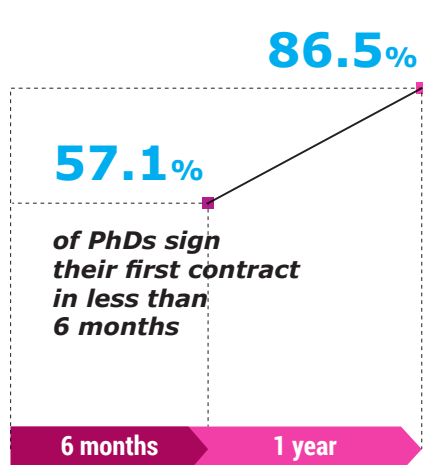
In comparison, out of the 616 PhDs who did not benefit from the CIFRE program, 43 were still looking for a job (7%). The Fisher's Exact Test, a statistical test, shows that the difference in employability rates between CIFRE and non-CIFRE categories at UBFC is not significant. At the same time, this test does not allow the assumption to be made that UBFC PhDs who benefited from CIFRE start more businesses than the others.

FIRST JOB & UNEMPLOYMENT



OVER HALF OF PHDS GET A JOB WITHIN 6 MONTHS OF GRADUATION

Out of all UBFC PhDs, 57.1% sign their first contract less than six months after dissertation defense. One year after receiving their degree, 86.5% graduates had signed their first contract.



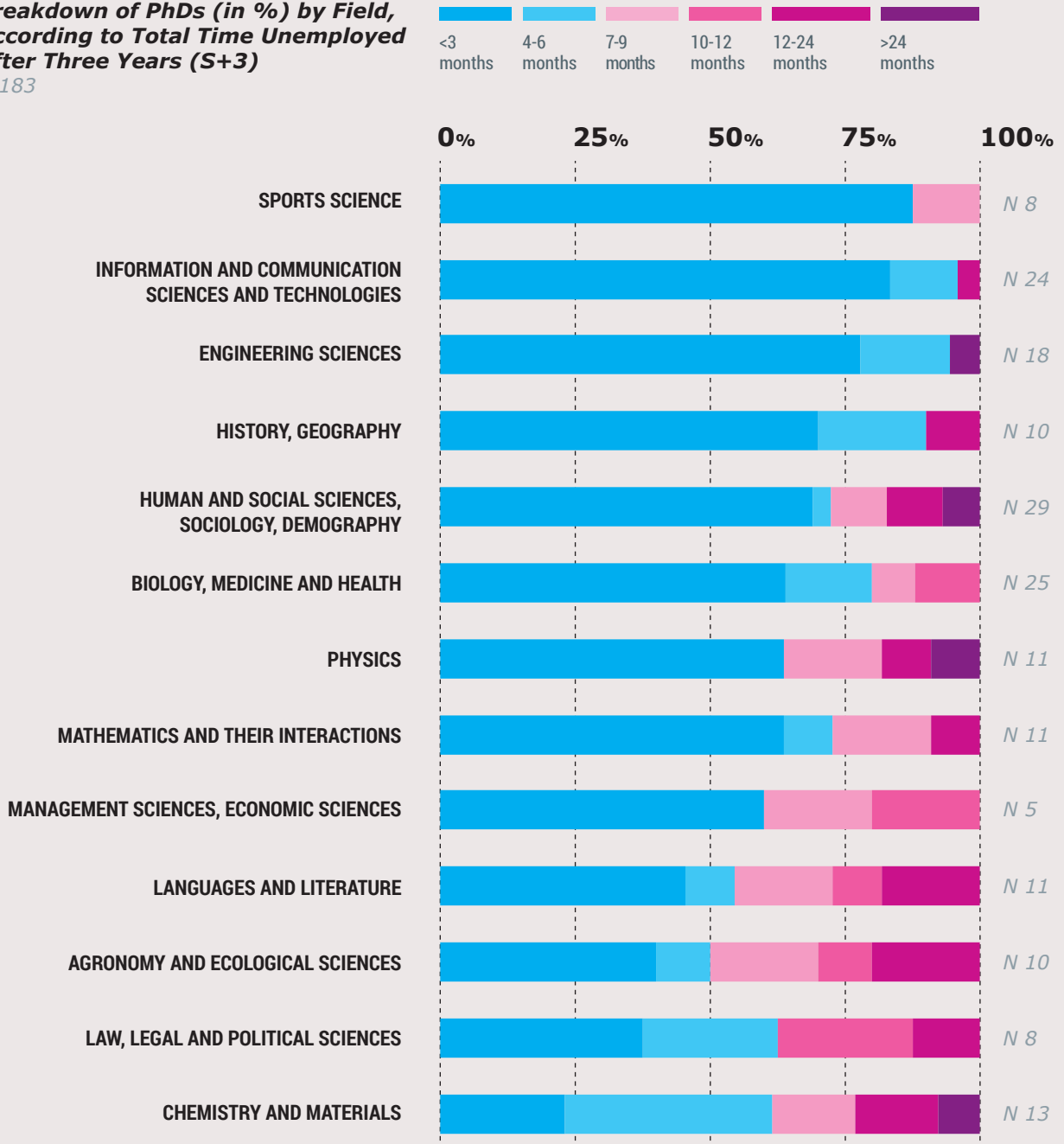
60%
of UBFC PhDs report being unemployed for a cumulative period less than 3 months, 1 or 3 years after receiving their degree.

EXPOSURE TO THE UNEMPLOYMENT RISK

After their dissertation, around 60% of UBFC PhDs experience periods of unemployment cumulating to less than three months. The different fields of study are exposed to unemployment risk in varying degrees. The ones that are the most exposed to this risk are Chemistry and Materials Sciences; Earth Sciences and Sciences of the Universe, Space; Philosophy and Arts; and Agronomy and Ecological Sciences. The fields that are the least exposed to this risk are Sports Sciences; Information and Communication Sciences and Technologies; Engineering Sciences; and Human and Social Sciences, Sociology, Demography.

Breakdown of PhDs (in %) by Field, According to Total Time Unemployed After Three Years (S+3)

N 183



UBFC PhD JOBS AND ACTIVITIES



HIGHER EDUCATION AND R&D ARE STILL THE BIG WINNERS

The 2021 IPDoc survey shows remarkable stability in the breakdown of the various categories of professional activity. Like the 2018 IPDoc survey, we observe that PhDs are mainly involved in professional activities related to higher education (33.7%) and R&D (28.7%). These activities may involve positions as a university lecturer (after obtaining the French CNU qualification), or R&D engineer for a private company. The cumulative rate of 62.4% is noticeably close to the rate recorded at the national level for the 2018 PhD cohort at S+3 (61.8%)¹.

A non-negligible proportion of PhDs were involved in consulting, engineering and assessment activities (11.5%). PhDs were also working in roles to promote and support research and innovation (9.5%).

*Employment categories for 2018 & 2020
PhDs with jobs on December 1, 2021*



Percentage of Employment by French Socio-Professional Category

N 318

43.1%	PROFESSORS, LECTURERS-RESEARCHERS IN HIGHER EDUCATION, SCIENTIFIC PROFESSIONS
26.7%	ENGINEERS AND TECHNICAL MANAGERIAL-LEVEL EMPLOYEES, PRIVATE SECTOR
10.1%	CIVIL SERVANTS, MANAGERIAL-LEVEL, PUBLIC SECTOR
5.3%	ADMINISTRATIVE AND SALES MANAGERIAL-LEVEL EMPLOYEES, PRIVATE SECTOR
3.5%	GENERAL AND TECHNOLOGICAL SECONDARY SCHOOL TEACHERS, PRINCIPALS OF SECONDARY SCHOOLS, SUPERINTENDENTS, PSYCHOLOGISTS SPECIALIZING IN CONTINUING EDUCATION AND CAREER GUIDANCE
2.5%	INDEPENDENT HEALTH CARE PROFESSIONALS
1.9%	TEACHERS IN PRIMARY, SECONDARY AND VOCATIONAL SCHOOLS, AUXILIARY EDUCATIONAL AND SCHOOL STAFF, TRAINING, LIBRARY AND PHYSICAL EDUCATION PROFESSIONALS
1.3%	COMPANY & RETAIL BUSINESS MANAGERS AND DIRECTORS, AND EQUIVALENT
1.3%	FOREMEN, TECHNICIANS & SUPERVISORS (NOT ADMINISTRATIVE STAFF)
0.9%	ARTS & MEDIA PROFESSIONALS
0.6%	PRIVATE AND PUBLIC SECTOR ADMINISTRATIVE STAFF (CAT. C), AUXILIARY HEALTH AND JANITORIAL PROFESSIONS, SALES STAFF
0.6%	WORKERS
0.6%	ADMINISTRATIVE & SALES INTERMEDIARY PROFESSIONS, PUBLIC SECTOR (CAT. B)
0.6%	LIBERAL, LEGAL AND TECHNICAL PROFESSIONS
0.3%	ARTISANS
0.3%	ADMINISTRATIVE & SALES INTERMEDIARY PROFESSIONS, PRIVATE SECTOR
0.3%	INTERMEDIATE HEALTH CARE PROFESSIONS AND SOCIAL WORK

These responses concur with the observation that the respondents with jobs at S+1 and S+3 belong, in the vast majority (43.1%), to the socio-professional category "Professors, Lecturers-Researchers in Higher Education, Scientific Professions." The rate has nevertheless dropped by 6.7 points since the 2018 IPDoc Survey.

The "Engineers and Technical Managerial-Level Employee" category follows (26.7%), and after it, "Civil Servants and Managerial-Level Employees in the Public Sector" (10.1%).



Share of Managerial-Level Employees

2021 IPDoc

85.2%

84.8%

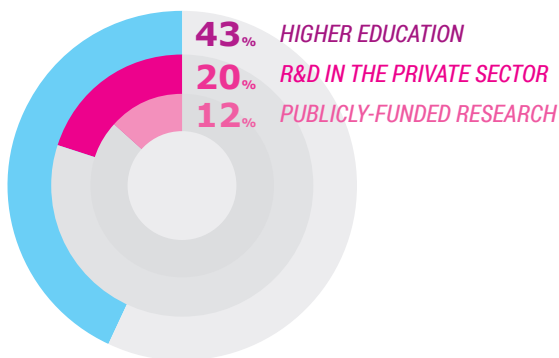
2018 IPDoc

Among UBFC graduates, the rates of managerial level staff (French "cadre" status) is 85.2%, at a steady rate since the 2018 IPDoc Survey (84.8%).

PROFESSIONAL ACTIVITIES IN LINE WITH INITIAL CAREER OBJECTIVES

EXPRESSED AT DISSERTATION DEFENSE

At the time when dissertation defense is held, the three most desirable career objectives are teaching or carrying out research in a private or public institution of higher education (43%), working for a company in the field of R&D (20%), and working in publicly-funded research (12%).



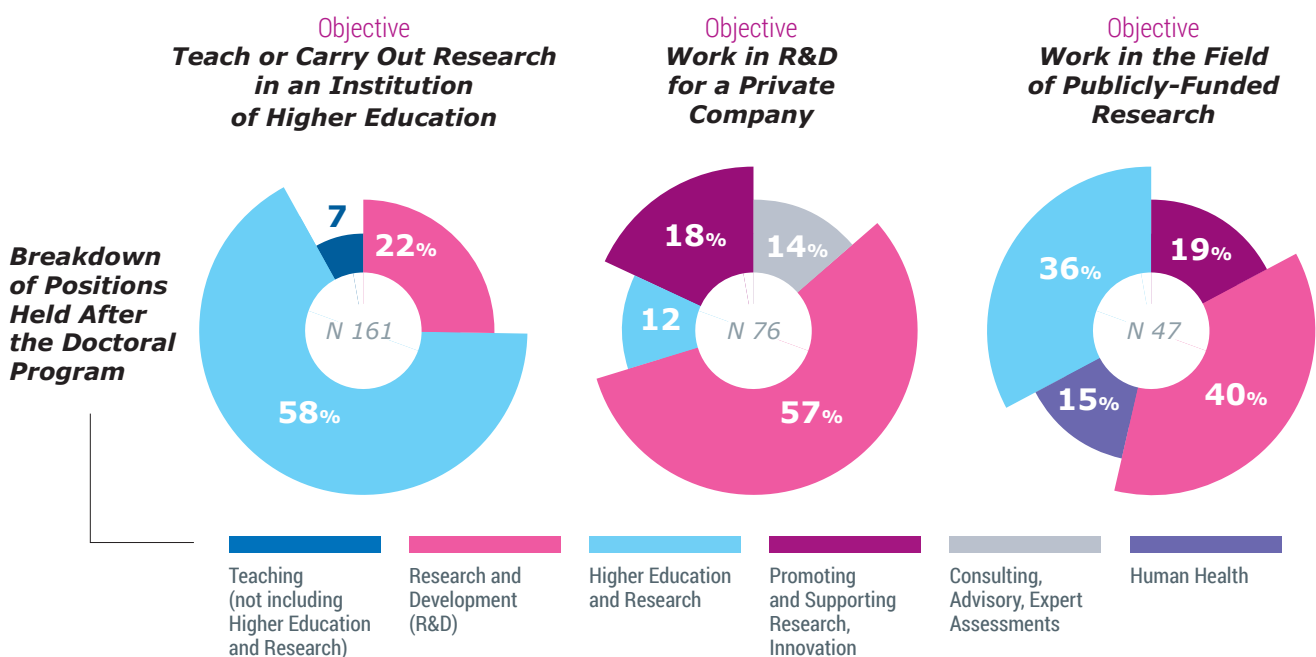
All Career Objectives

N 378

Teach or carry out research in a private or public institution of higher education	43%
Work for a private company, in R&D	20%
Work in publicly-funded research	12%
Other	7%
Continue their career in the field prior to the doctorate	6%
Work in the public sector excluding higher education and research	5%
Work for a private company, not in R&D	3%
Start a business	2%
None	2%

ACTUAL PROFESSIONAL ACTIVITY COMPARED WITH THE THREE MAIN CAREER OBJECTIVES

A rather good correlation was observed between the career ambitions and the activities actually reported by survey respondents. Among the PhDs whose original career objective at dissertation defense was to teach or do research in an institution of higher education, 58% held positions within higher education and research. Likewise, 57% of PhDs who wished to work in a company in the field of R&D are actually carrying out R&D.

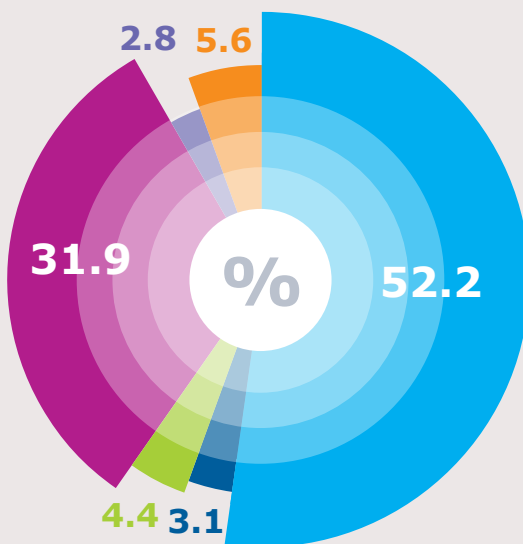


○ THE FRENCH PUBLIC SECTOR, A MAJOR EMPLOYER

Echoing the categories of activities mentioned above, the vast majority of respondents are employed in the public sector (52.2%), followed by a second group of PhDs working for private companies (31.9%).

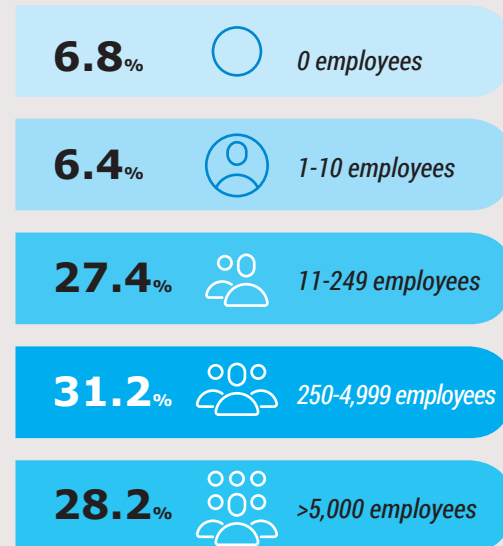
Types of Organizations Employing UBFC PhDs

N 320



Employer Wage Bill

N 234



INTERPRETATION

6.4% of the companies in which UBFC PhDs work are very small, with between 1 and 10 employees. Finally, 6.8% of UBFC PhDs started a business in which they work alone.

Even if a majority of companies employing UBFC PhDs have over 250 employees (59.4%), we observe a substantial amount of interest in PhD profiles among very small companies and small & medium enterprises (SME), since these organizations account for 33.8% of hires. Large businesses hire PhD profiles from science and technology in priority, in particular the Carnot-Pasteur and Environment-Health doctoral schools. Finally, 6.8% of UBFC PhDs start and manage a business with no employees.

NATURE OF EMPLOYMENT



MORE PERMANENT WORK CONTRACTS IN FRANCE

One year after graduating, 45.8% of UBFC respondents working in France had permanent work contracts. Abroad, 21.4% had permanent work contracts.

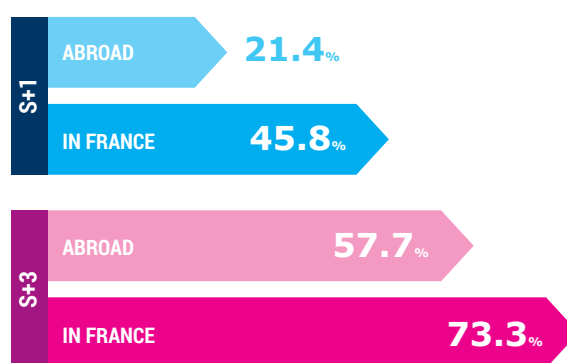
Three years after graduating, permanent work contracts were more common than at the one-year mark, abroad and in France, respectively accounting for 57.7% and 73.3%. The latter rate is very similar to the national average for permanent contracts in France in 2021¹ by census (73.7%). It remains stable with respect to the rate from the last IPDoc survey in 2018 (76.7%).

The finding that PhDs were more often on permanent contracts at S+3 than at S+1 may be explained by the fact that in the year following graduation, PhDs often hold temporary fixed-term contracts or post-doctoral fixed-term contracts (most frequently done abroad). Post-doctoral contracts accounted for 46.4% of the temporary contracts held abroad at S+1.

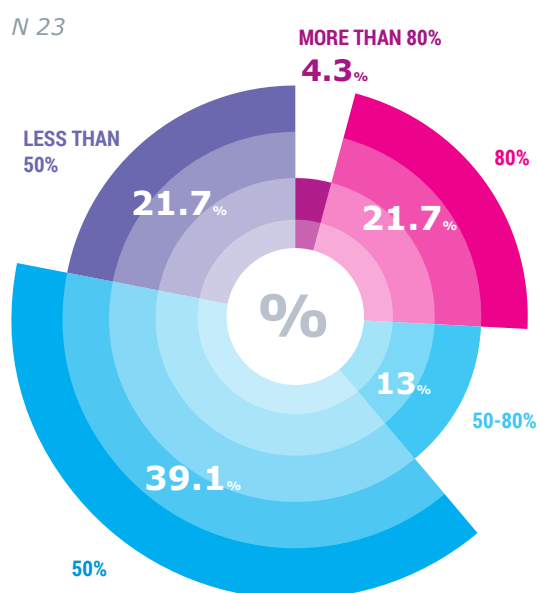
PART-TIME WORK

Out of the respondents with work contracts, 7.2% had a part-time job². An over-representation of part-time contracts was observed for women graduates. Indeed, among the graduates with jobs surveyed, part-time contracts accounted for only 6.42% of the jobs held by men, while this figure was 8.4% for women. For graduates employed less than full-time, half-time (50%) contracts accounted for the most common part-time employment rate, at 39.1% of respondents. For 26.1% of respondents, they held contracts at 80% employment rates or higher.

Share of Permanent Positions



Proportion of PhDs on Part-time Employment Contracts in France

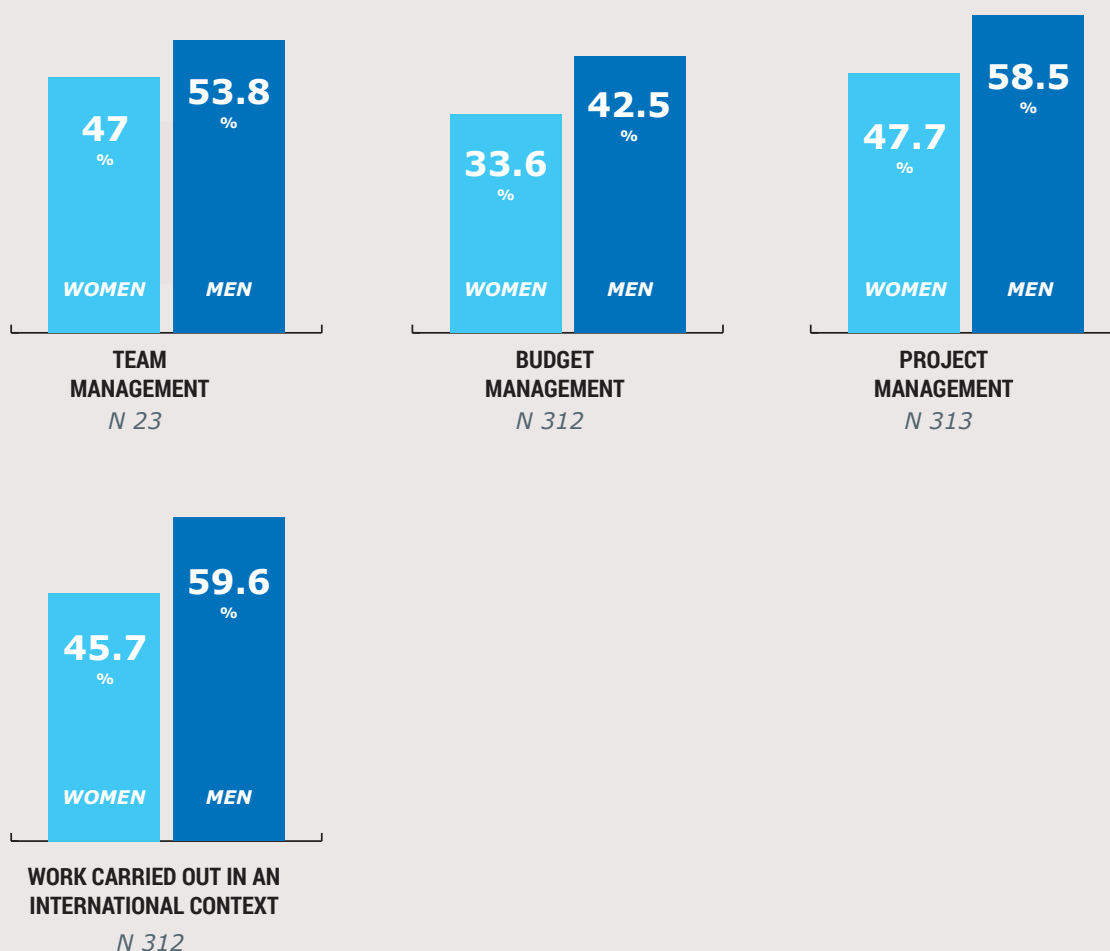


○ JOBS WITH RESPONSIBILITIES

More than half of the PhDs working confirms that their responsibilities include team management (51%), project management (54%), or working in an international context (53.8%)³. These rates are relatively stable, but over the course of the surveys conducted by UBFC, a slight increase in team management has been observed. This figure has increased from 49.8% in the 2018 IPDoc Survey, 50% in 2020, and 51% in 2022. The trend is similar for work in an international context, with numbers increasing from 51.3% in the 2018 IPDoc Survey to 52.4% in 2020, and 53.8% in 2022. Finally, even though it is the responsibility least-cited by respondents in 2021 (38.8%), managing a budget is also clearly on the rise since the 2018 survey (+5.5 points).

For each of the activities, a striking imbalance exists between men and women holding jobs with responsibilities. As part of the work done by men, project management accounts for 58.5%, while it accounts for only 47.7% for women. The same is true for work done in an international context, representing 59.6% for men, and 45.7% for women.

Type of Work Done by PhDs as of December 1, 2021, by Gender



WHERE UBFC PhDs WORK



Percentage of PhDs Working in France or Abroad

N 326



Out of the 326 respondents, 78.8% work in France and 21.2% work abroad. These percentages show little change from the 2018 IPDoc Survey.

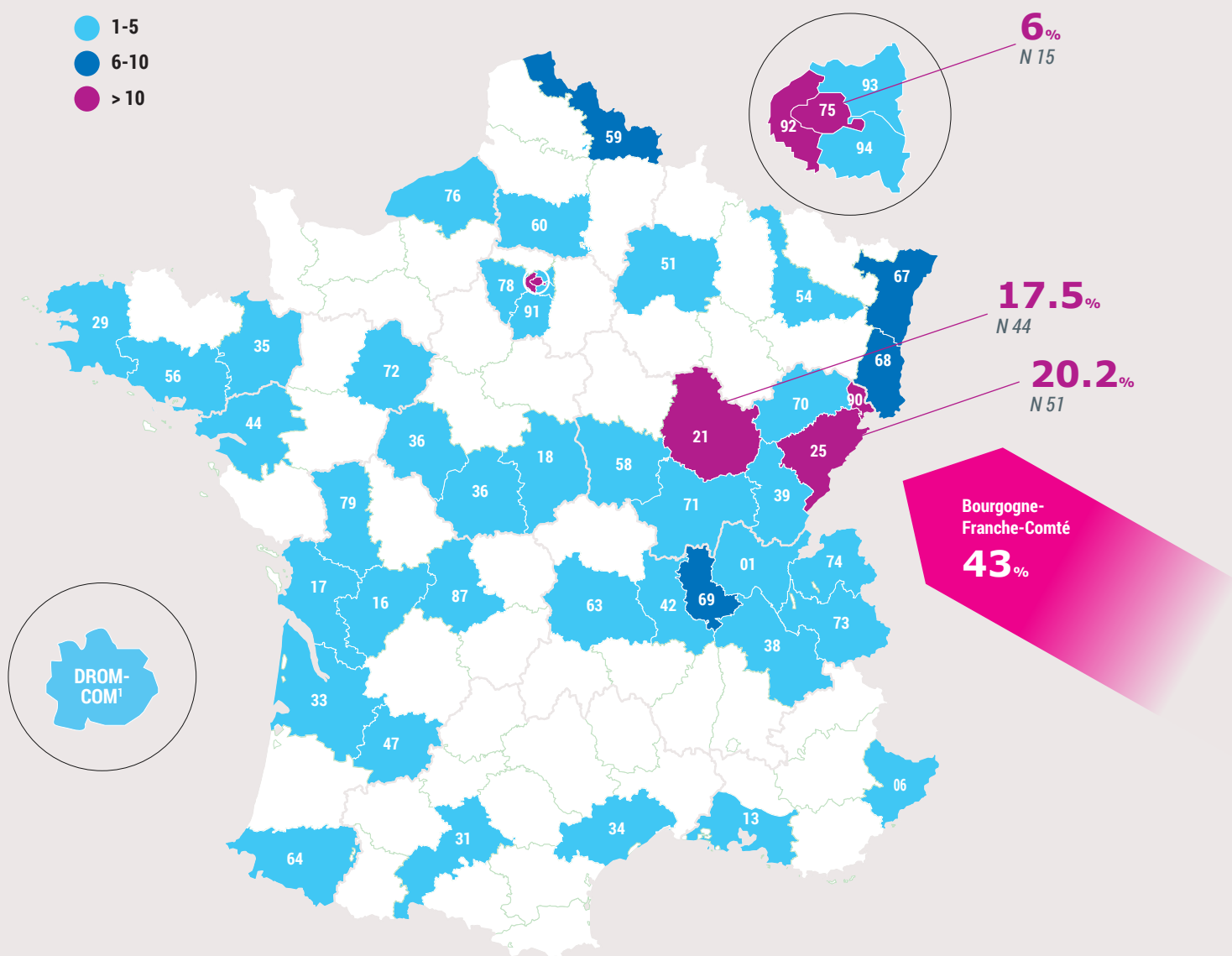
Location and Numbers of PhDs Working Abroad



Among PhDs living abroad, 67.2% indicate that they chose the country where they are working. For the most part, the companies employing PhDs abroad are mid-size organizations with 250 or more employees (57.6%). Out of the respondents working abroad, 50% reported that they would like to stay in their current country.

The main administrative departments where UBFC PhDs are working in France include Doubs (20.2%), Côte-d'Or (17.5%), Paris (6.0%), and Territoire de Belfort (5.2%). Therefore, nearly 43% of UBFC PhDs remain in the general area where they completed their doctoral program.

French Geographic Areas of Employment of UBFC PhDs, and Density



1. French Overseas Departments and Regions

UBFC PhD GRADUATE EARNINGS



DISPARITIES BETWEEN FIELDS

The median net monthly salary, calculated based on earnings reported by UBFC employed full time in France, is €2,170.



€2,170

Monthly Median Net Salary for PhDs, All Fields

The sidebar graphic shows certain disparities between salaries for various fields. As an example, the lowest median net salary is from the History, Geography field, at €1,596. The highest median net salary is from languages and literature with €2,650 per month. This data must be considered in light of the wide variation in respondents from each field, which ranges from 3 (Earth Sciences and Sciences of the Universe, Space) to 31 (Biology, Medicine and Health).

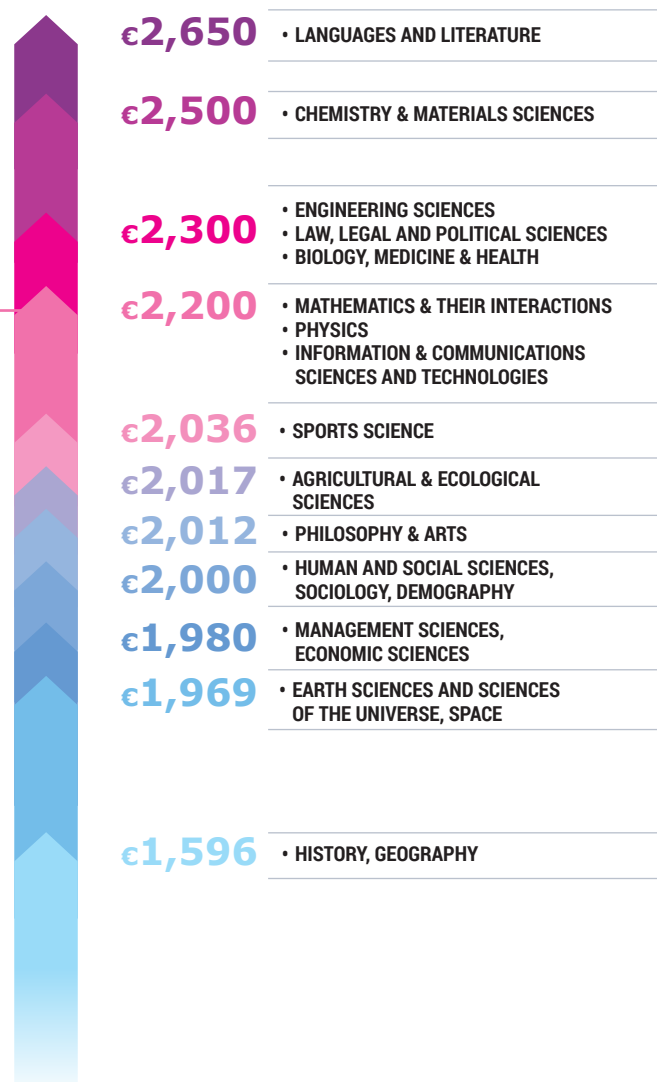
GENDER DISPARITIES

Overall, women are paid lower salaries than men. The median net monthly salary, calculated on the basis of reports from the 189 UBFC graduates employed full time in France is €2,100 for the 74 female respondents, and €2,200 for the 115 male respondents.

It should also be noted that for the 27 PhDs employed abroad, the median net monthly salary is roughly the same: €2,185.

Median Net Monthly Salary for PhDs Working Full Time in France, by Field

N 189



PhD EMPLOYMENT SATISFACTION RATE



AN OVERALL SATISFACTORY SITUATION, BUT EARNINGS SOMETIMES CONSIDERED DISAPPOINTING

Overall, the satisfaction level of UBFC PhDs with respect to their career is high (84% answered "satisfied" and "very satisfied"). This satisfaction rate is roughly the same as the rate recorded at the national level for the 2018 cohort (85%)¹. UBFC PhD satisfaction and dissatisfaction has been noticeably stable since 2018.

84%

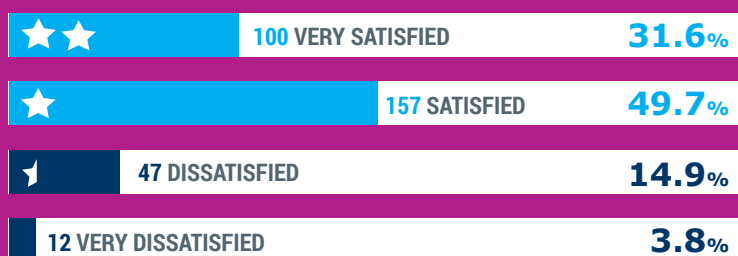
were satisfied with their professional situation overall



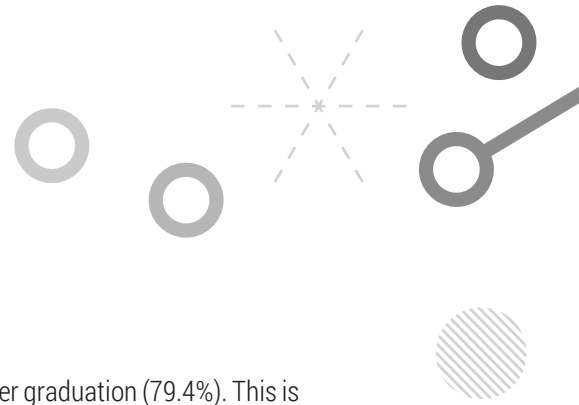
The opportunities provided by their job is the criterion which brings the most satisfaction to survey respondents (81.3% answered "satisfied" and "very satisfied").

81.3%

were satisfied with their career outlook (international, multidisciplinary)



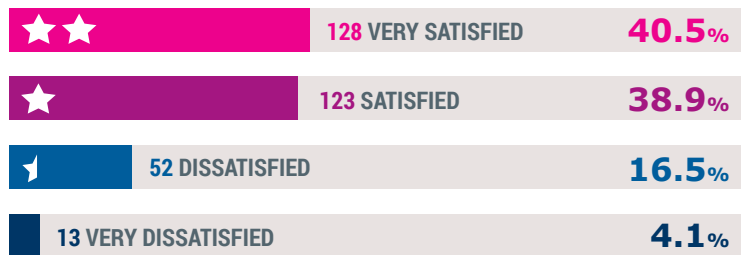
1. SIES Informational Memo, "Faible impact de la crise sanitaire sur l'insertion professionnelle à trois ans des docteurs", no. 8, Paris, MESR, October 2022.



Another positive aspect highlighted is the good fit between the PhD and jobs after graduation (79.4%). This is confirmed by the fact that 79.9% of respondents reported that the PhD was a decisive step in their career path.

79.4%

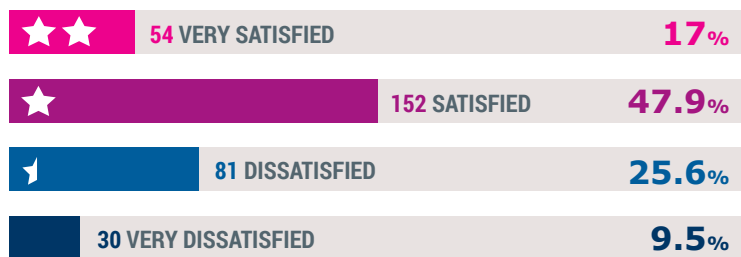
were satisfied with the fit between the PhD and their job



On the other hand, a non-negligible share of respondents (35%) was dissatisfied with the level of compensation offered for their position. The career progression offered by their current position is another aspect with which respondents were dissatisfied, since 29.4% of respondents report dissatisfaction.

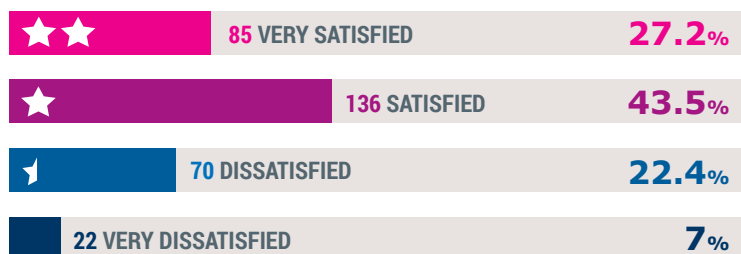
35%

were unhappy with their level of compensation



29.4%

were dissatisfied with the outlook for the future or career advancement



SOURCES AND REFERENCES

RNCP Description Sheets for Doctoral Studies may be viewed on the France Compétences website: <https://www.francecompetences.fr>

French Ministry of Higher Education and Research (MESR)

General Directorate for Higher Education and Occupational Integration (DGESIP)
General Directorate for Research and Innovation (DGRI)

Higher Education and Research Strategies Coordination Division, Information Systems and Statistical Studies Subdirectorates (SIES):

- SIES Flash Memo, *Fort impact de la crise sanitaire sur le nombre de docteurs diplômés en 2020 (-15 %)* ["High impact of the health crisis on the number of PhD candidates receiving their degrees in 2020 (down 15%)"], no. 9, Paris, MESR, May 2021.
- SIES Flash Memo, *Les docteurs diplômés en 2021 : vers un retour à la situation antérieure à la crise sanitaire* [PhDs in 2021: Toward a return to the situation before the health crisis], no. 16, Paris, MESR, June 2022.
- SIES Informational Memo, *Faible impact de la crise sanitaire sur l'insertion professionnelle à trois ans des docteurs* [Low impact of the health crisis on occupational integration for PhDs three years on], no. 8, Paris, MESR, October 2022.

INSEE Première, *Une photographie du marché du travail en 2021. L'emploi augmente fortement, notamment celui des jeunes* [A Snapshot of the Employment Market in 2021. Employment has risen sharply, especially among young people], no. 1896, March 2022.

READY TO TAKE
YOUR CAREER
FURTHER?



THE UBFC DOCTORAL COLLEGE WEBSITE

Visit the “Career” section of the Doctoral College at:

<https://collegedoctoral.ubfc.fr>

There, you can access resources, information, news, and tools to help you reach your career objectives and optimize your career path.



UBFC ALUMNI, A NETWORKING TOOL DESIGNED TO SERVE YOUR CAREER

The UBFC Alumni professional network is designed just for UBFC students and graduates.

This online platform is a place to find information, to ask questions and discuss topics of interest. There, you can provide support to peers and receive guidance all throughout your journey that will facilitate career changes and advancement. You'll find a number of tools to help prepare your first steps in the world of work:

- Professional opportunities in the career area,
- Tips and advice on developing your network,
- Member directory,
- A mentoring program based on mutual support and discussion,
- Special interest groups,
- Career-related events,
- Contact information for companies, partners and recruiters.

Because building a professional network takes time, get a head start creating and developing it at the beginning of your studies. You can be a proactive player in your career by activating your account with just one click. Visit alumni.ubfc.fr now!

Join the network to take advantage of all these opportunities!

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