



RESEARCH

IN

FRANCE

**> THE DOCTORATE,
STEP BY STEP**

**CAMPUS
FRANCE**
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DOCTORAL TRAINING

IN FRANCE



Doctoral candidates in France are trained within a research team or unit (known as a UR) that is attached to a doctoral school or department (ED). The department is led by a director who also supervises candidates' research. Training takes place over 3 years and culminates in the defense of a dissertation.

> DOCTORAL SCHOOLS

In 2019, there were 265 doctoral departments across France. They are housed within universities or other approved institutions.

> HOW DOCTORAL SCHOOLS ARE ORGANIZED

Doctoral schools are accredited by the French government and assessed every 5 years by Hcéres, France's high council for the evaluation of research and higher education. Each doctoral school is accredited in specific scientific fields.

Doctoral schools are led by a director, who is assisted by a council.

- The director serves as the link between doctoral candidates, the host institution, and the laboratory.
- Half of the members of the council are representatives of the participating educational institutions and their research units and teams. 20% of the members are doctoral candidates within the department and are elected by their peers.





> UNIVERSITY RESEARCH SCHOOLS

Established on the graduate school model, the “university research schools” (écoles universitaires de recherche, EUR) bring universities, free-standing schools, research organizations, and laboratories together in a community that awards degrees at the master and doctoral level. The EURs receive additional financial resources from the French government to enable them to carry out their activities. Two calls for proposals issued in 2017 and 2019 by France’s Ministry of Higher Education, Research, and Innovation resulted in the formation of 53 EURs. The EURs have the advantage of offering a research context recognized for excellence. Their purpose is to train students to do research from the master’s level and to support students’ career development (source: <https://anr.fr/fileadmin/aap/2018/aap-iaeur-2018.pdf>). Students participating in a EUR project are assured of an exceptional research environment for their graduate work.

List of the EURs

www.enseignementsup-recherche.gouv.fr
> Stratégie > Stratégie transversale
> Investissements d’avenir

France’s doctoral schools (known as EDs) are collections of research units and laboratories. They oversee the recruitment of doctoral candidates, monitor the quality of their research, and help them launch their careers. They also participate in the activities of international scientific cooperation of their host university.

Directory of doctoral schools: <https://doctorat.campusfrance.org>

THE ESSENTIALS OF DOCTORAL TRAINING

Unfolding over a period of 3 years (or, exceptionally, as many as 6), doctoral training consists of performing research within a research unit under the supervision of a dissertation director. It culminates in the preparation and defense of a dissertation that describes the scientific work performed and makes it available to the scientific community.

In addition to his or her independent research work, the candidate undergoes approximately 160 hours of coursework offered by the doctoral school. A portion of that coursework is required by the school; the rest consists of electives chosen by the candidate. Topics include research methods; French language; business and innovation; disciplinary courses; teaching; and presenting science to lay audiences.

Candidates must also meet the department's requirements related to publications and participation in seminars.

For more information:
"Doctoral studies in France"

www.campusfrance.org

- > Resources center
- > Higher Education and Research in France
- > Degrees

> SUBMISSION OF DISSERTATIONS

Institutions authorized to confer doctoral degrees are required to report all dissertations that are successfully defended. Candidates must submit their dissertation to the degree-granting institution. This official submission serves to archive the dissertation.

National dissertation database: www.theses.fr



> INSIGHT

The dissertation director is a key figure. He or she is responsible for the development and evolution of the doctoral plan over the 3-year training period and is the candidate's direct supervisor in the lab. To supervise doctoral research, individuals must have earned a specific qualification known as *Habilitation à Diriger des Recherches* (HDR).

DEGREES IN FRANCE
DOCTORAL STUDIES IN FRANCE

After earning a European Master or equivalent degree, acquiring scientific and research skills in a doctoral program, which may include up to 3 years of training in and through research, with a research center that will support them in their scholarly or scientific development. Following a successful defense of their dissertation, candidates are awarded the Doctorate.

KEY FIGURES:

- 100+ French universities, 200+ PhD programs
- 100+ research centers
- 100+ PhD holders (doctoral candidates)

IN BRIEF:

- Doctoral studies in France are open to all students who have earned a European Master or equivalent degree.
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APPLYING FOR ADMISSION TO DOCTORAL STUDIES

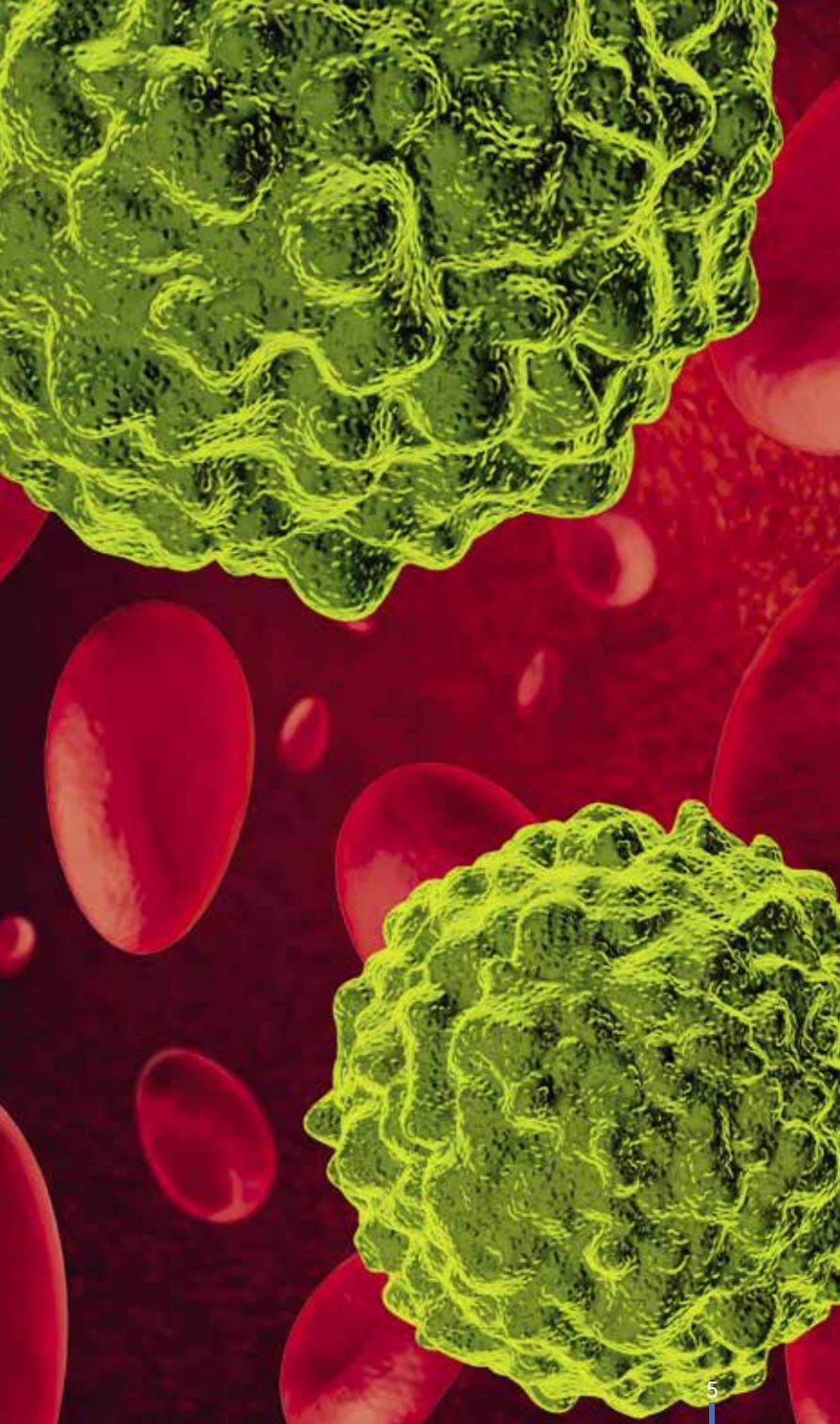
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CAMPUS FRANCE



> **BEST PRACTICES:**
GOOD ADVICE FROM ANDES

ANDES, France's national association of doctoral recipients, publishes descriptions of best practices for planning and executing a doctoral research project.

<https://andes.asso.fr/loupe/>

> **WANT TO DO
YOUR DOCTORATE
IN ENGLISH?**

- Proficiency in French is not required to pursue a French doctorate in the exact sciences, including engineering and biology.
- > Meetings with the dissertation director are conducted in English.
- > Courses in French language are offered during the candidate's time in France.
- > The dissertation is written and defended in English.
- > **A summary of the dissertation must be provided in French.**
- French proficiency (usually level B1 or B2 of the Common European Framework of Reference for Languages) is required to begin a doctorate in the humanities or social sciences (anthropology, geography, history, linguistics, philosophy, psychology).
- Requirements vary for the following disciplines: business, marketing, political science, communications, law.

ADMISSION

TO A

DOCTORAL PROGRAM

Admission to a doctoral program is a selective process.

Candidates must:

- > hold a European master or the equivalent (5 years of postsecondary study; 300 ECTS credits)
- > demonstrate that they possess financial means of at least a thousand euros per month for 3 years, except in the humanities and social sciences
- > possess a certain level of proficiency in English and/or French

Each doctoral department has its own admission requirements and processes.

> ADMISSION

Admission decisions are based on a research proposal that will be supervised by the department's dissertation director.

Because of the financial support so often required as a condition for admission, research topics are often proposed by training entities (doctoral schools; research laboratories; corporations; and national, European, and international research programs) as a function of the funding available.

In the exact sciences (physics, chemistry, mathematics, biology, engineering), where **demonstrated financial support is a condition for admission**, prospective candidates may apply directly for topics proposed by a dissertation director. Those topics often carry funding.

In the humanities and social sciences (history, law, political science, philosophy, and geography, among others), where **financial support is not necessarily required**, it is always possible to propose a topic to a dissertation director, who will submit it to the doctoral department for approval.

> TUITION

The annual tuition for French doctoral programs is €391.

> VISA

The type of visa required depends on how the period of doctoral study will be organized.

• Long-stay visa (VLS) marked «passeport talent-chercheur» (researcher-talent passport)

This visa is issued to foreign doctoral candidates who hold a master's degree or the equivalent and have entered into a host agreement (and formal doctoral contract) with a research entity in France.

• Long-stay visa and residency permit (VLS-TS) / multiyear residency permit (CSP)

This visa is issued to doctoral candidates who will not receive a salary under a doctoral contract but who have demonstrated that they possess sufficient means of support to cover their period of study in France. The multiyear residency permit is issued after the first year of study in France and is valid for 2–4 years, depending on the candidate's program.

For more information:

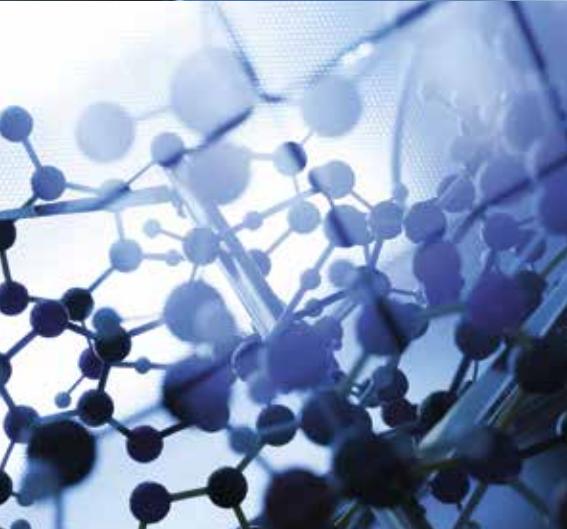
<https://france-visas.gouv.fr>

www.campusfrance.org

> Getting organised > Visas

¹ ECTS is the European Credit Transfer System.

Credits are cumulative and transferable within Europe. An academic year generally represents 60 ECTS credits.



> APPLYING, STEP BY STEP

- Identify the scientific fields and specializations most closely related to your master's work
- Identify the doctoral departments and research organizations active in those areas
- Visit their websites to apply for posted dissertation projects or to propose a topic of your own
- Contact the dissertation director
- Verify that your topic carries funding, or find funding on your own
- After reaching agreement on a topic with a dissertation director, apply for admission to the doctoral department
- Upon notification of acceptance from the doctoral school and dissertation director, sign the dissertation agreement (*charte des thèses*)

TYPES OF DOCTORATE

> TRADITIONAL DOCTORATE

1 research unit, 1 dissertation director; enrollment in a French institution accredited to grant doctoral degrees; dissertation defense at that institution; award of French doctorate.

> JOINTLY SUPERVISED DOCTORATE

2 research units, at least one of which is French (or 1 lab with 2 different dissertation directors); 2 dissertation directors; enrollment in 1 university, defense in that university or another (if another is involved); award of French doctorate.

> JOINTLY AWARDED DOCTORATE

1 research unit in France and 1 abroad, 2 dissertation directors; enrollment in 2 universities under agreement setting forth conditions of joint award; defense in 1 of the 2 universities; 1 doctorate awarded jointly by the two institutions (joint diploma) or 2 separate degrees (double diploma).

> DOCTORATE FOR RESEARCH PERFORMED IN A CORPORATE SETTING

The CIFRE mechanism (the acronym stands for industrial agreements for training through research), managed by ANRT, the French national agency for research and technology, offers financial incentives to French corporations that employ doctoral candidates in a program of collaborative research with a publicly funded laboratory. The period of employment lasts 3 years and ends with a dissertation defense.

The firm proposes a research goal that becomes the subject of the dissertation of the employed doctoral candidate.

The research lab oversees the research work of the doctoral candidate, who is enrolled in the doctoral department with which the lab is affiliated.

Some offers of employment may pertain to specific countries (e.g., India, Morocco) or to specific programs (such as CIFRE EITDigital).

www.anrt.asso.fr/fr/cifre-7843

> DOCTORATE AWARDED FOR ACQUIRED EXPERIENCE

It is possible to be awarded a doctorate on the basis of one's prior experience. Interested candidates should approach an appropriate doctoral school to discuss the possibility. www.vae.gouv.fr

NEW

Doctorates are now entered into France's national register of occupational qualifications (RNCP), thus facilitating recognition of the competencies that doctoral students acquire while performing their research. www.certificationprofessionnelle.fr

> THE DOCTORAL CONTRACT

recognizing the professionalization of doctoral training

The possibility of entering into a doctoral contract is open to all doctoral candidates. Contracts are for a period of 3 years. They offer a guaranteed minimum monthly salary of €1,758 (gross) and all of the benefits of a formal employment contract. The terms are identical across all institutions of higher education and research. Issued and managed by the doctoral departments, doctoral contracts reinforce the professional aspect of the research endeavor.



For more information: "International dual degree PhD (*cotutelle*)"

www.campusfrance.org >Resources center > Higher Education and Research in France > Degrees



> FINDING A DISSERTATION TOPIC, A DOCTORAL DEPARTMENT, AND FUNDING THE RESEARCH PORTAL

A one-stop shop to plan your research project

- Directory of doctoral schools: use the search engine to quickly identify the doctoral departments and laboratories most closely related to your research topic and obtain the information you need: contacts, links, research priorities and directions, admission requirements, international student support services, funding opportunities, international cooperative activities, affiliated research laboratories, and more.
- A compilation of current doctoral and postdoctoral research offers (financed or not), as well as master-level internships, currently posted on the sites of France's doctoral departments, research organizations, and other research actors.

<http://doctorat.campusfrance.org/en/phd/offers>

Users may elect to receive alerts whenever a topic that matches their criteria is posted.

- A guide to European and international funding programs.
- Information and contacts for research organizations and laboratories
- News about research in France
- Campus France profiles
 - > doctoral departments, including a description of the school, contact information, associated laboratories, practical advice on preparing a dissertation
 - > degrees, including international joint doctorates
 - > research fields in France, with information on how they are organized and their current areas of focus

www.campusfrance.org

> Researchers; or > Resources center

> FINDING A DISSERTATION TOPIC, A DOCTORAL DEPARTMENT, AND FUNDING

> PROPOSED DISSERTATION TOPICS

Proposed dissertation topics are posted on various websites:

- On the sites of individual doctoral schools and research organizations
- On the site of the French national agency for research and technology, for opportunities to pursue a doctorate while working in a corporate lab:
www.anrt.asso.fr/fr/cifre-7843
- On the site of the network of doctoral schools, which publishes calls for proposals and applications for funded research topics: **www.adum.fr**
- On **<https://euraxess.ec.europa.eu>** for the funding programs of the European Union
- At the Campus France research portal, a one-stop shop for international students considering a period of research in France:
www.campusfrance.org > Researchers

INSIGHT

ABG, the Bernard Gregory Association, supports the career development of doctoral recipients. In addition to offering training for both candidates and recent PhDs, it posts on its website job openings, funded research topics at the doctoral and master level, and a CV library for doctoral candidates in all scientific fields.
www.abg.asso.fr/fr **www.mydocpro.org/fr**



FUNDING

Because earning a doctorate is recognized as a professional research experience, most French doctoral candidates are covered by an employment contract; most candidates must be funded.

> SEVERAL FUNDING OPTIONS ARE POSSIBLE

1. Funding from the host institution. Each year, French doctoral departments, laboratories, research organizations, and firms publicize on their websites dissertation topics that they are willing to fund.

> Doctoral contract: The doctoral school draws on its own budget to fund the topic agreed on with the applicant, either entirely or in the amount needed to supplement the candidate's own funds.

> Contract with a research organization (CNES, CNRS, CEA, etc.): The topic is funded by the research organization.

2. Funding from the candidate's government. Some countries provide funds for overseas doctoral study by their nationals. Candidates may obtain information from the French embassy in their country.

3. The European Joint Doctorate.
<http://ec.europa.eu>

4. Corporate financing under a CIFRE contract.
www.anrt.asso.fr/fr/cifre-7843

5. Personal funds. Prospective candidates may state in their application that they intend to meet their living expenses from their own funds.

USEFUL LINKS

Doctoral contracts:

www.etudiant.gouv.fr/cid96370/contrats-doctoraux.html

Funding guide published by ANDES, the national association of doctoral recipients:

<http://financements.andes.asso.fr/guide-des-financements>

Campus France research portal:

www.campusfrance.org >Researchers

> EIFFEL EXCELLENCE GRANTS (DOCTORAL COMPONENT)

Developed and financed by France's Ministry of Europe and Foreign Affairs, the Eiffel Scholarship Program of Excellence supports the international recruiting efforts of French institutions of higher education. Institutions that sponsor candidates for grants agree to admit those candidates should they win an Eiffel. The program covers four broad fields of study: sciences, economics and management, law, and political science. Scholarships support a 10-month period of mobility in the course of a joint doctoral program (preferably during the second or third year of doctoral study). The program is designed to help French institutions attract the very best international doctoral candidates.

<https://www.campusfrance.org/en/eiffel-scholarship-program-of-excellence>

THE

POSTDOC

Once they have earned their doctorate, many consider a postdoctoral contract in France to gain real professional research experience and get their career started.

Fixed-term postdoctoral contracts are designed to permit holders of a doctorate (typically those who earned their degree within the past 10 years) to spend a short period of time in France (usually between 12 and 24 months) engaged in a research activity.

During their stay, the postdoc works as a full-time researcher in a laboratory and participates fully in all research-related activities: publishing articles, attending seminars, participating in conferences.

> SHORT-TERM RESEARCH MOBILITY

Short periods of mobility are an important part of the research enterprise, whether they involve spending a few months performing research in a foreign lab, traveling in connection with a cooperative work project, or attending lectures or summer sessions. Often short absences are financed by the researcher's home lab, but there are other possibilities as well.

- Country-specific mobility grants: for information, contact the French embassy
- IFRE grants from joint international units of the CNRS: www.ifre.fr/bourses
- AUF grants within the French-speaking world: www.auf.org

> OBTAINING A POSTDOCTORAL CONTRACT

All of France's research organizations, university laboratories, and corporate R&D departments announce opportunities for postdoctoral contracts on their website.

Many sites collect, compile, and republish such announcements, often in specific fields or for certain geographical areas.

FRANCE

> Association Bernard Gregory (ABG)

www.abg.asso.fr

> Indeed, an employment search platform

www.indeed.fr >post-docs

> *Opération Postes*, a job-search platform run by research faculty in mathematics:

<http://postes.smai.emath.fr/postdoc/>(Mathématiques)

> The Campus France research portal

www.campusfrance.org >Researchers

EUROPE

> Academic Positions, the job portal for academic and research positions in northern and central Europe:

<http://academicpositions.fr>

> Research Science Jobs and Postdocs in Europe :

www.eurosciencejobs.com/job_search

WORLD

EURAXESS, a European initiative to support mobile researchers, has developed a platform called EURAXESS Jobs that publishes position openings and funding opportunities around the world: <https://euraxess.ec.europa.eu/jobs>

www.lifescience.net

<http://jobs.sciencecareers.org>

SOURCES

- French Ministry of Higher Education, Research, and Innovation, www.enseignementsup-recherche.gouv.fr
- Decree of 25 May 2016 setting forth the training framework and modalities for the delivery of the doctorate, a national diploma, www.legifrance.gouv.fr
- Conference of University Presidents, www.cpu.fr
- Websites of research organizations, universities, associations, and nonprofit organizations
- Media centers of CNRS and INRA

> PRE-DOCS

In many places (e.g., UK, Belgium, Norway), pre-doctoral preparation sessions called “doctoral training” or “PhD training” seem to have taken hold. These short research experiences enable future doctoral candidates to get a sense of what research is all about. They also allow research directors to put future candidates to the test.

Although pre-docs are not yet common in France, a few programs have nevertheless begun to surface.

- The Mathematical Sciences Foundation of Paris is a federation of 14 mathematics labs employing 1,800 researchers, including 5 Fields medal winners. Alongside its doctoral and postdoctoral programs, the foundation offers predoctoral sessions. www.sciencesmaths-paris.fr/en/the-foundations-research-chair-244.htm
- FIER, French international experience in research: www.nplusi.com/public/fr/le-programme-predoctoral-fier-doc



> SUMMER SESSIONS



Short thematic sessions organized annually—often in summer—by research organizations, universities, and laboratories are designed to promote interdisciplinary thinking around pressing scientific questions. They provide opportunities for researchers to transmit fundamental knowledge and exchange ideas.

The sessions generally feature guest lecturers from France or abroad.

CNRS offers more than a hundred such sessions each year.

Details are available on the CNRS site. www.cnrs.fr

Campus France: France Excellence summer sessions. Contact: phdsummerschool@campusfrance.org

Other examples:

CNES, France’s national space studies center: www.cnes.fr >Nous rejoindre> École d’été d’Alpbach 2020

EHESS (school for advanced study in the social sciences) summer session:

www.ehess.fr/fr

Université Grenoble Alpes, Institut Fourier: www-fourier.ujf-grenoble.fr >activités scientifiques

RESEARCH THE EUROPEAN WAY

The European Union is extremely active in research. It supports numerous programs designed to promote international research mobility. Several programs are described below.

> EUROPEAN RESEARCH COUNCIL

The European Research Council is an EU entity responsible for coordinating the research efforts of EU member states. It is the leading pan-European funding agency.

> THE MARIE SKŁODOSWKA-CURIE ACTIONS

The European Union's framework program for research and innovation includes the MSCA, a set of excellence initiatives designed to promote career development among researchers from Europe and elsewhere in the world. Several actions support international mobility for researchers at the doctoral and postdoctoral levels.

<http://ec.europa.eu/research/mariecurieactions>

> RESEARCH INFRASTRUCTURE

The development of excellent research facilities is one of the goals of Horizon 2020. The overarching objective is to generate advanced knowledge and to attract talent from all partner countries.

> HORIZON 2020 AND PCRI: OPPORTUNITIES FOR YOUNG RESEARCHERS

Horizon 2020, the European Union's research and innovation program for 2014–2020, funded interdisciplinary projects around 3 priorities: scientific excellence, industrial primacy, and social challenges.

The EU's next multiyear financing framework, which will cover the period 2021–2027, is being negotiated by the member countries. It will revolve around three projects: (i) open science, (ii) global challenges and industrial competitiveness, and (iii) open innovation.

> EXAMPLES OF OTHER PROGRAMS

FUTURE AND EMERGING TECHNOLOGIES (FET)

The FET program is part of the "Scientific Excellence" component of Horizon 2020. It aims to make Europe the globe's most attractive place for collaborative and interdisciplinary research.

EURATOM

The component of the European nuclear research program on fission, fusion, and radiation safety covers various subjects, including doctoral training.

For more information:

- European Commission:
<http://ec.europa.eu>
<https://ec.europa.eu/info/funding-tenders>
- French portal for the European research and innovation program: www.horizon2020.gouv.fr

RESEARCH IN FRANCE IN FIGURES

74,000
doctoral candidates
in France

2nd in the world
in Fields medals received

€49,8 billion
in R & D investment

3rd
in international
doctoral candidates
(OECD)

42%
of postsecondary
students
are international

4th in Nobel
prizes awarded

2nd in Europe
in applications filed at
the European Patent Office

CAMPUS FRANCE IN FIGURES

220 staff
in France 
500 around
the world 

260+
Campus France
offices in
125+ countries

56 events staged
by Campus France
each year

370+
educational institutions
and research bodies
participating in the
**Campus France
Forum**

80
websites
32 languages
20 million
visits/year

720,000
visitors

30,000
mobile students and
scholars under management

20+
institutional
publications 

1.7 million
followers
on social
networks 

8 European
projects managed
 **2** as a lead
agency

85 international agreements
with foreign institutions and governments

€122
million in fund
under management

300,000
alumni in the
France Alumni
social network


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