Opportunities in the French Higher Education, Research and Innovation System

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France: a country of diverse landscapes and rich cultural heritage

- Hosts the world's 5th largest number of cultural UNESCO World Heritage Sites, drawing around 89 million foreign tourists annually (1st in the world)
- Temperate climate with maritime influence leading to diverse landscapes
- Renowned sites, architectural heritage, museums
- Rich cultural tradition

- Alps
- Provence
- Brittany
- Burgundy
- Eiffel Tower
- Reims Cathedral
- Chambord
- Mont St Michel
- Versailles
- Monet
- Rodin
- Hugo
- Cannes festival
- Tour de France
- Daft Punk
France: a major contributor to scientific achievement

Famous French scientists

70 Nobel Prizes, 13 Fields Medals

High quality research facilities

Successful technologies
French Research and Innovation: key figures

- 49.5 B €, 2.27% of GDP dedicated to R&I
- 604,700 persons involved in R&I (285,000 researchers)
- 14,500 PhD degrees delivered every year

- 4th position in terms of EU patents applications
- 7th WW position in terms of scientific publications
  4th in terms of impact (H index)
- CNRS 1st institution WW in terms of scientific publications

- 57% of international copublications
- CNRS recruits ~30% of its researchers/yr from abroad (since 2010)
- 41% foreign PhD students
Public organizations involved in R&I  1/5

20 Research institutions (« organismes de recherche »)

- CNRS (all fields)
- CEA (nuclear energy/physics/materials)
- INRIA (ICT and robotics)
- INSERM (health)
- IRD (development research)
- IFSTTAR (transport)
- CNES (space)
- INRAE (agronomy)
- IFREMER (marine research)
- IPEV (polar)
- ...
67 Universities

- Enroll the majority of students: 1 525 000 (2017-2018)
- Award national diplomas, based on uniform standards of quality
- Cover all disciplines
- All have a research activity
- Total staff of universities: 154 0600, among which 94 600 involved in teaching (2016-2017)
Public organizations involved in R&I  3/5

Grandes Ecoles

- A specific feature, inherited from history (set up in parallel with the university system since the 18th century) 86 500 students (2017-2018)
- highly selective / competitive admission

- Engineering: + 200 schools - 158 800 students
- Business & management: 220 schools - 174 100 students
- Arts: 120 schools
- Architecture: 20 schools
- …
Building Excellence Clusters: IDEX & I-SITE
towards top world ranking institutions

• Bring together universities, grandes écoles, national research centers, and enhance collaboration with companies
• Integrate Higher Education, Research and Innovation
• Encourage mergers
• Enhance international visibility and attractiveness

- IDEX « Initiatives d’Excellence » (comprehensive)
- I-SITE Initiatives « Science – Innovation – Territoires – Economie » (thematically specialised)
Public organizations involved in R&I  5/5

Funding bodies

- **MESRI** (core funding of universities and Research Public Organizations + limited operational budget)
- **ANR** - Agence nationale de la recherche (calls for proposals in Research)
- **Interministerial programmes** (e.g. Programme Investissements d’Avenir - PIA)
- **BPI France**
- **MEAE** (specific tools)
Among the current flagship initiatives

**Artificial intelligence**
- « AI for Humanity » strategy
- Strategic Partnership with Germany, special cooperation with Japan and Canada

**Quantum technologies**
- Ongoing parliamentary mission based on international benchmarking (incl. US, China, Canada, Japan)
- New national strategy (in synergy with EU flagship initiative)

**Environment and climate change**
- Follow-up of the UN Framework Convention on Climate Change (active role in the Intergovernmental Panel on Climate Change (IPCC))
- Make our Planet Great Again Initiative
Fostering transatlantic cooperation and mobility in environmental and climate science

1st CALL 2017... ongoing

- All nationalities
- Student courses / doctorates / post-doctorates / long-term research stays
- Funding of scientific projects for 3 to 5 years
- Thematic areas:
  - Earth Science
  - Climate change, Sustainable development
  - Energy Transition Science and Technology
- Up to 30M€ for the 1st call

A strong resonance around the world, particularly in the US in 2017

- > 11 000 registrations, of which 5 600 students and researchers
- 1 800 formal applications (short or long-term research stays, studies, post-doctorate..)
- 61% des USA
**Call 2017: 32 laureates for long-term research stays**

<table>
<thead>
<tr>
<th>Residence</th>
<th>USA</th>
<th>Canada</th>
<th>Espagne</th>
<th>Inde</th>
<th>Pologne</th>
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- Females: 9
- Seniors: 16
- Males: 23
- Juniors: 16

**Residence**
- USA: 19
- Canada: 3
- Espagne: 2
- Inde: 1
- Pologne: 1
- Italie: 1
- Suisse: 1
- Pérou: 1
- Arabie Saoudite: 1
- Japon: 1
- UK: 1

**Nationality**
- USA: 11
- France: 8
- Canada: 5
- Allemagne: 2
- Espagne: 2
- Grèce: 1
- Italie: 1
- Pérou: 1
- UK: 1

- Earth Sciences: 14
- Climate Change: 12
- Energy transition: 6
FRANCE’S FLAGSHIP RESEARCH INSTITUTE

ADVANCING SCIENCE
EXPLORING NEW INTELLECTUAL FRONTIERS ATTACKING IMPORTANT SOCIETAL ISSUES

CNRS – European Research & International Co-Operation | DERCI
LARGEST RESEARCH PERFORMING ORGANIZATION IN EUROPE IN ALL FIELDS OF KNOWLEDGE

• **1,137 units** spread in France and abroad

• **96.9%** units jointly operated with other **academic partners** (universities, research institutes) or **industrial companies**

• A **workforce of 33 000** (including 11 200 tenured researchers)

• **43,000 publications/year** (world leading organization)

• 26 Framework **agreements** with large **industrial groups**

• A portfolio of **4,535 patent families**

• More than **1,000 start-ups** launched since 1999
MANY CAREER OPPORTUNITIES WITH NO CITIZENSHIP RESTRICTIONS

A total of 3,300 foreign researchers (permanent & contract)

TENURED POSITIONS

- Researchers
  - Annual competitive recruiting process: call for proposals in December, start in October
  - CR: 1st class or 2nd class (5 < years)
  - DR: 1st class (8 < years) or 2nd class (12 < years)

- Engineers
  - Annual competitive recruiting process: call for proposals in May, start in December

- Permanent Associate Professor positions
  - Qualification deadline: December

NON-TENURED POSITIONS

- Researchers and Engineers
  - 1 to 3 years – renewable

- Post-docs

http://emploi.cnrs.fr
La science pour la santé
From science to health
The only one French research institution entirely dedicated to biomedical & health research

Inserm’s missions for health

- Provide scientific expertise and support for science-based policy in health
- Produce and disseminate knowledge nationally and internationally
- Play a major role in the national coordination of health research
- Support higher education and research training
- Create value from discoveries and their applications

INITIATE, DEVELOP AND COORDINATE BIOMEDICAL RESEARCH OF EXCELLENCE
Inserm at a glance

In Europe and worldwide
+ 6,000 international cooperation

- 13,371 staff
  - 5,104 civil servants (2,142 researchers)
  - 3,035 contract staff and temporary workers
  - 5,232 university-hospital personnel

- Patents and licenses
  - A portfolio of 1,804 patent families
  - 300 R&D partnerships

- No. 1 European academic applicant in the biomedical sector and No. 4 in the biotechnology sector worldwide
- 9th most innovative public research organization worldwide
- Major participants in H2020 (230 EU projects; 80 ERC)

11,033 original articles (2018)
(> 50% International co-publications)
Working at Inserm


Researchers

ATIP-Avenir

young researchers
• annual grant of €60,000
• two-year fixed-term contract for the recruitment of a postdoctoral researcher
• salary for three years for non-statutory laureates

Tenure Positions
Annual recruiting campaign

Engineers/Technicians

Guide of the International Mobility at Inserm:

+ numerous positions available through temporary contracts (project-based)
https://euraxess.ec.europa.eu/jobs/search?keywords=inserm
RESEARCH IN FRANCE
TALENTS

https://www.campusfrance.org/en/researcher
Thank you for your attention