Choosing France
Excellence of French Research and Innovation, Universities and Schools

Minh-Hà PHAM
Counselor for Science and Technology
Organization of Research and Innovation in France

**Parliament**

**Government**
- Ministry for National Education, Higher Education and Research
- Regions
- Other Ministries

**Agencies / Programs**
- ANR
- Bpifrance (ex-OSEO)
- National Programs
- Alliances
- Competitiveness Clusters
- Foundations/Other Agencies

**Research and Innovation Players**
- Research Organizations (CNRS, Inserm, CEA etc.)
- Higher Education and Research Institutions (Universities, *Grandes écoles*)
- Private Companies
- European Commission
- Parliamentary Committees
- Strategic Committee for Research (PM)

**Policy**

**Agencies and Programs**
- BPIfrance (ex-OSEO)
- ANR
- National Programs
- Alliances
- Competitive Clusters

**Evaluation**
New frameworks for Research and Innovation in France and Europe

- **Europe:** New framework program for research and innovation: Horizon 2020 (2014-2020)
  - Overall Budget: **€77.02 billion** (not including the Euratom program)
  - 3 Priorities: Excellence – Industrial Leadership – Societal Challenges

- **In France,** law concerning higher education was enacted on July 22, 2013

- **Government policy aims at orienting institutions on site towards the same strategic road map**
  - ✓ Simplifies the national landscape by supporting local coordination of higher education and research players
  - ✓ Provides France with education, research and innovation clusters that are recognized internationally
  - ✓ Fosters technology transfer to further economic development

- **New national research strategy** aims at responding to scientific, technological and societal challenges

- **Strategic agenda “France Europe 2020”** was issued by the Minister for Higher Education and Research on May 21, 2013
New funding for Research and Innovation in France
Investments for the Future

- Launching of the « programme d’investissements d’avenir », law of March 9, 2010
- 6 strategic priorities identified by a commission headed by 2 former prime ministers
  - **Higher education**: emergence of University clusters of excellency able to face international competition
  - **Basic research and its application to industry**: providing means to laboratories to excel and accelerate technology transfer
  - **Industrial sectors**: promotion of innovative SMEs and mid-tier firms
  - **Sustainable development**: contributions to energy transition towards a new model of sustainable growth
  - **Digital economy**: deployment of broadband infrastructures all over the country and to develop new usages for industries and households
  - **Health and biotechnologies**: development of new approaches in medicine and in agronomy
- €47 billion (€35 billion in 2010, €12 billion in 2013)
Thematic Coordination of Research in France

Alliances and Joint Programming Initiatives

- At the national level, better reactivity through better coordination of research communities
- Looking forward and suggesting directions for long term research programs
- Extend national alliances’ activities to the European level through joint programming (e.g. Alzheimer’s)
- Five thematic Alliances
  - **AVIESAN**: National alliance for life sciences and health (April 2009)
  - **ANCRE**: National alliance for energy research coordination (July 2009)
  - **ALLISTENE**: National alliance for digital sciences and information technology (December 2009)
  - **ALLENI**: National alliance for the environment (February 2010)
  - **ATHENA**: National alliance for the humanities and social sciences (June 2010)
Transatlantic funding programs and cooperation tools

- **EU programs opened to non-european countries including United States**
  - Marie Curie-Sklodowska fellowships for PhD and postdocs
  - ERC (European Research Council)

- **NSF, NIH, DOE international programs**
  - NSF international program PIRE: NSF-ANR, NSF-CNRS agreements (signed in 2014)
  - NSF-GROW to France
  - NIH-Inserm agreements
  - DoE-CEA agreement

- **Fulbright fellowships** opened to PhD students and confirmed researchers

- **Bilateral programs** between the French Ministry of Foreign Affairs and American Universities: MIT, Chicago, Berkeley, Stanford, Columbia (seed funds)

- **Partner University Fund** (PUF)

- **Chateaubriand Fellowship program** (STEM & SSH)

- Specific tools developed by French research institutions with international partners (CNRS, Inserm):
  - UMI (7 in the US), LIA (>15 in the US)
Education in France

- Higher education in France is organized in three levels or grades which correspond to those of other European countries, facilitating international mobility: **Licence** and **Licence Professionnelle** (Bachelor), **Master** (Master), **Doctorat** (Doctorate)
- In addition, the Licence and the Master are organized in semesters: 6 for the Licence and 4 for the Master
- Higher education in France is divided between **Grandes écoles** (Engineering and Business, >200) and **public universities** (>80)
- It is not uncommon for graduate teaching programs (Master’s degrees, the course part of PhD programs etc.) to be operated in common by several institutions, allowing the institutions to present a larger variety of courses
- **Tuition costs**: since higher education is funded by the state, the fees are very low; the tuition varies from €150 to €700 depending on the university and the different levels of education (**licence, master, doctorate**)
- Increasing number of **English taught tracks**
France: A major contributor to scientific achievement

Famous French scientists: 65 Nobel Prizes, 12 Fields Medals

High quality research facilities

Successful technologies
France: A land of Innovation
Very Large Research Infrastructures in France

**GANIL**
Large Heavy Ion National Accelerator

**ARRONAX Cyclotron**: Particle accelerator for radiochemistry and oncology research

**Laser MegaJoule - LMJ**

**SOLEIL**
Optimized Source of LURE Intermediary Energy Light

**Neurospin**
Research center dedicated to neuroimaging

**IHES - P4**
High security Laboratory for Life Sciences
France Research Tax Credit

Covers 30% of annual eligible research spending up to €100 million, an additional 5% can be pre-financed: SMEs may receive the credit before doing the research.

Eligible companies:
- Any company, any legal form
- Located in France

Eligible R&D expenditures:
- R&D personnel costs
- Depreciation of infrastructure, of patents used for R&D, etc.

Another tax credit may be claimed by SMEs incurring innovation expenses:
- Conception of prototypes, new products or pilot plants
- 20% of all such expenses up to €400,000
Advantages for New Innovative Companies

(Jeunes Entreprises Innovantes – JEI)

**Tax exemptions**
- Complete exemption from corporate tax
- 50% corporate tax rebate during the following profitable tax year
- Exemption from the Contribution Economique Territoriale and/or the property tax for 7 years

*Capped at €200,000 over a 3 year period*

**Social Security exemptions**
- The eligible portion of salary is fully exempted for 7 years

*Capped at 35% of R&D operations expenses over 8 years*
Financing SMEs development: Bpifrance

- **Seed fund loans**
  - For startup financing, up to **€150,000** to facilitate fundraising with VCs

- **R&D grants and loans**
  - Typically less than **€1 M.** Exceptional projects can get up to **€10 Million**
  - Company must pay for more than half of the project

- **Innovation support loans**
  - Up to **€1.5 million** loans for industrial development, commercial launch and company internationalization

- **Development loans**
  - To accelerate the development of solid commercial firms
  - Combination of Public and Private loans, up to **€9 million in total**
Research Positions in France

- **Research Organizations:** publicly funded (totally or partially) either multidisciplinary (CNRS) or more specialized (Inserm/Health, CEA/Energy, CNES/Space, INRA/Agronomy, Inria/Computer sciences, Ifremer/Marine sciences...)
  
  - Permanent position after a national competition exam (public servant)/temporary position
  - Recruiting starting at Doctoral/Postdoctoral level
  - Full time research activity (the position follows the researcher)
  - Open to non-nationals, and non speaking French scientists

- **Universities:** 73 in 2014, publicly funded, comprehensive universities
  
  - Permanent position after a local competition exam (public servant)/temporary position
  - Recruiting starting at Doctoral/Postdoctoral level
  - 50% teaching (150-200 hours/year) + 50% research activity (the position belongs to the University)
  - Open to non-nationals, courses mainly taught in French

- **Companies:** hire scientists at Master/Doctoral/Postdoc level for permanent (CDI) or temporary positions (CDD)

*Note: most research laboratories are mixed labs between Research Organizations and Universities, and are located on University campuses. Positions of Ingeniors, Technicians, Administrative staff are available.*
Social life, quality of life

- For the second consecutive year, *International Living*, a publishing group covering living abroad topics, has ranked France as the best country to live in.
- The French healthcare system was ranked first worldwide by the World Health Organization in 1997 and then again in 2000.
- French religious policy is based on the concept of *laïcité*, a strict separation of Church and State. Freedom of religion is a constitutional right.
- French cuisine is renowned for being one of the finest in the world, and is extremely diverse.
- Public transportation is reliable and affordable.
- Lower costs are available for students in museums, cinemas, transportation, etc.
A country of diverse landscapes and rich cultural heritage

- Hosts the world's 4th largest number of cultural UNESCO World Heritage Sites, drawing around 83 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
What you should know about being a Researcher in France?

- Permanent positions offered
- Evaluation process for tenure Researchers
- Research bonus on a competitive basis
- High quality research facilities
- Access to regional, national and European funds on a competitive basis
- Innovation bill (1999): to facilitate the creation of start-ups by researchers
- French citizenship and language are not compulsory
- Quality of life:
  - University tuition costs are low
  - Health insurance for everyone
  - Jumping-off point to discover Europe
  - Great food and cultural life!
CONTACT

Minh-Hà Pham, PhD
Counselor for Science and Technology
Embassy of France
4101 Reservoir Road, NW
Washington, DC 20007

conseiller@ambascience-usa.org

Website: http://www.france-science.org