OVERVIEW OF FRENCH RESEARCH SYSTEM

STATISTICS, ORGANISATION, PROGRAMS

Version 1 – February 2016
FRANCE AND RESEARCH
-2015-
(65 millions inhabitants)

46.5 BILLIONS € (698 TRILLIONS IDR)  Direct national budget for R&D
(+30.1 BILLE private)
2.23 %  Share of GDP devoted to R&D

275  Doctoral schools
3 200  Research units

564 500  Number of Research staff in France (equivalent to 412 000 full-time)
259 100  Number of Researchers (Public sector: 102 500 / Private one: 156 600)
26 %  of Women

67 000  PhD Students in total for 13 000 awarded per year (50% are foreigners)

2 Nobel Prizes 3 Breakthrough Prizes 1 Lasker Award
1 Fields Medals 1Kavli Prize

France totalized
• 64 Nobel Prizes since 1901
• 12 Medal Fields since 1936

Institutes

Staff

Budget
FRANCE IN THE INTERNATIONAL COMPETITION

Research enhances territorial development
Must be local but clustered nationally

Shanghai 2015
France position: 5th (22 FR universities in TOP500)

Absolute classification unable to catch specificities

1st ranked world publications: CNRS, the French Research Agency (100,000 / year)
6th Publishing Country
4th Patenting Country in EU system and 7th in US system (CEA, CNRS, IFP at first)
HOW FRENCH RESEARCH IS ORGANIZED?

- **National Research Strategy** « SNR » (in line with the European One: Europe 2020)
- **Specific Additional Policies** (Ministers, Regions)
- **Coordination & Evaluation** (ANR, ANRT, HCERES)
- **Numerous thematic & territorial clusters** (mix of university labs, research agencies, industrials partners, institutionnal actors)
- **Funding programs** (multi-annual, multi-partners, multi-disciplinary) Complementary to EU funding: Horizon2020
OVERVIEW OF THE MAIN PUBLIC RESEARCH

Higher education and research clusters in France (2015)

CPU
Group of all University Presidents (similar to CRISU)

74 Universities
250 Higher Education Engineering Schools
Over 10 research agencies (CEA, CNES, CNRS, CIRAD, IRD, INSERM, INRA, IFREMER,...)
All now grouped in 20 Big Territorial Cluster « COMUE » for better Shanghai Visibility

Source: MENESR - DGRI - SPIFCO
Production: MENESR - DGESIP / DGRI - SES

September 2015
RESEARCH FOR ECONOMIC COMPETITIVENESS

- 71 National Competitiveness Thematic and Territorial Cluster (65% SME, 17% Public research, 18% Big companies)
- 15 of them for International visibility
- 5 Alliances to serve for Thematic Gateway and National Planning
- (Allenvi, Aviesan, Ancre, Allistène, Athena)

- National BPI Bank for innovation (SME, Start-Ups...)
- National Program for Student Entrepreneurship (PEPITE)
+ European complementary schemes

- Specific or local Grouping:
  - GIE: Economic Interest
  - GIS: Scientific Interest
  - GDR: Focus thematic research groups
RESEARCH FOR EXCELLENCE & CAPACITY BUILDING

Investissements d’avenir
Laboratoires d’excellence vagues 1 et 2

Specific targeted structuring funding (IA, IDEX, LABEX, EQUIPEX)

Source: MESR - CGI
Réalisation : ministère de l’Enseignement supérieur et de la Recherche

march 2011 et février 2012
RESEARCH FOR EXCELLENCE & CAPACITY BUILDING

Specific Label for Public Research Institutes strongly linked to economical development

Carnot Institutes (34 labs, 15% of the Research power)
STRUCTURE OF PUBLIC RESEARCH

Typical Scientific Team

- Full Professor // Director of research
- Tenure Professor (HDR) // In charge of Research
- Associate Professor (MCF)
- Assistant Professor (ATER)
- Post-Doc
- PhD Student
- Master Student

Scientific Team Support

- Research Engineer
- Study Engineer
- Technician
STRUCTURE OF PUBLIC RESEARCH

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Different labelling

- University labs (EA)
- Joint labs between research agencies and universities (UMR)
- Research agencies labs (UPR)
- International lab (UMI)

Different Authority Ministry

- Higher Education & Research: Casa de Velázquez, ENS, ...
- Agriculture: Agro Paris Tech, Agro Campus Ouest, ...
- Environment: ENSM
- Defense: ISAE, Ecole Polytechnique, ...
- Equipment: ENPC
- Sports: INSEP
- Economy: GENES

Joint Authority Ministries

- Foreign Affairs + Research: CIRAD, IRD, ...
- Agriculture + Research: Institut agronomique, vétérinaire et forestier de France

CNU
Thematic commissions serve to evaluate labs & staffs
60: Mechanics, 27: Informatics, 23: Geography, ....
FUNDING SCHEMES

**Industrially focused**

- **H2020** European funding scheme with 15% of French contribution
- **FUI** Interministry funding (Since 2005: 1585 projects for 2.5 Billions €, 15 000 staff)
- **CIFRE** PhD thesis inside Private companies (specific Technology Transfer scheme)
- **Regional funding** (thematic and territorial)

**Academically focused**

- **H2020**
- **ANR thematic funding** (Since 2005: 2205 projects for 1.5 Billions €)
- **PHC** (Min of Foreign Affairs) covering international cooperation
- **overcost**
- **BIO/STIC Asia** (Min of Foreign Affairs) Multilateral thematic program
EXTERNAL LINKS

Some links you may like to visit for further specific information!

IFI French Cooperation Office in Indonesia

Institut Français
Indonesia

Ministry of Research & Higher Education

Competitiveness clusters

CAMPUS FRANCE

International research cooperation by MOFA

ANR Research Funding Agency

European Horizon2020 funding program

CPU group of University Presidents

Thematic CNU groups
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