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## **Development of the Science and Innovation Policy in Russia in the light of the recent evolutions in France**

*Vladimir MAYER*

*Institute of Social Sciences of Politics*

*CNRS – Univ. Paris Nanterre – ENS Cachan*



## Outline of the talk

Universities to become the centre of national research systems, policies and tools

- classification and structuring of universities
- laboratories of excellence
- universities versus research performing organizations

Silicon valleys « à la russe » and «à la française »

-



# Universities to become the centre of national research systems (1)

## Structuring higher education institutions in Russia (2007 – 2010)

Higher education institutions in Russian Federation 1100,  
depending of the Min. Educ. and Science 330  
involved in R&D about 500

research relatively weak in most universities  
(only 15 – 20 % of univ. teachers do any research)

### **2 Autonomous universities** (MSU, StPSU)

- **9 Federal universities** "hubs" (5 Europe, 4 Asia)
- **29 Research universities** (8 general, 21 specialized)  
(11 Moscow, 4 StP, 9 Europe, 5 Asia)

Governmental support to be focused to these selected universities



## Universities to become the centre of national research systems (2)

### Structuring high education institutions in France (2006 – )

High education institutions in France:

80 universities, 250 "*grandes écoles*"

strong research labs in most universities

- **mixed units** with research performing organizations
- most university teachers do research

#### - **21 Research and higher education clusters (PRES)**

consortia of universities and *grandes écoles*

#### - **13 Thematic networks of advanced research (RTRA)**

consortia of labs belonging to research organizations and universities that excel in a particular scientific domain

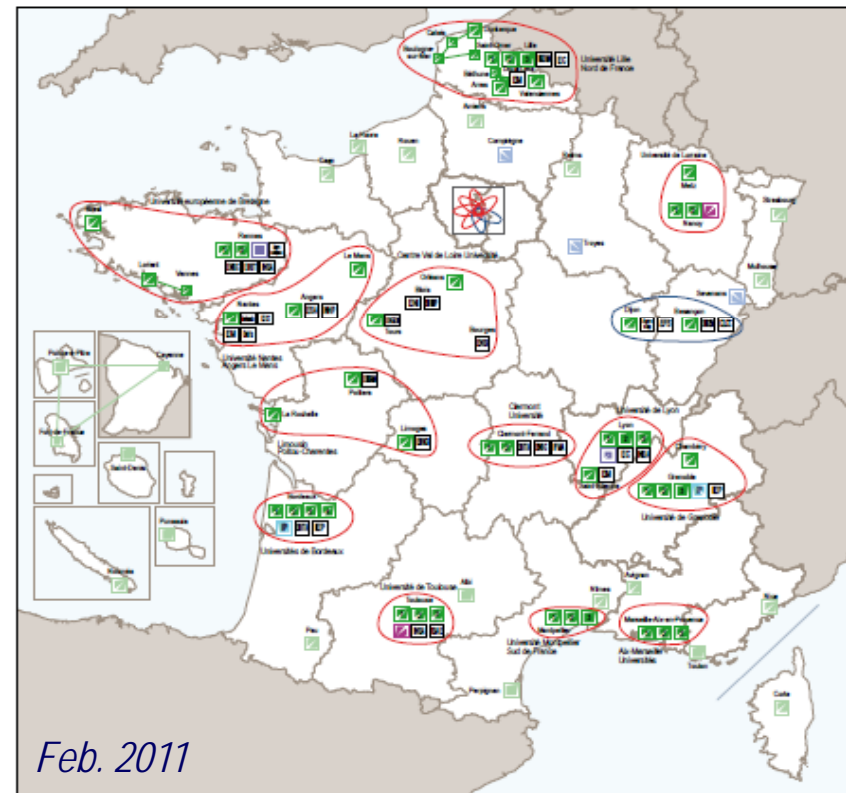
- strong signals from the government for universities to merge (increasing visibility « Shanghai syndrom »)



# RESEARCH AND HIGHER EDUCATION CLUSTERS (PRES)

**21 research and higher education clusters (PRES)** comprising nearly **60 universities** and many higher education institutions (engineering schools, business schools, hospitals...)

*<http://www.enseignementsup-recherche.gouv.fr/cid20724/les-poles-de-recherche-et-d-enseignement-superieur-pres.html>*





# THEMATIC NETWORK OF ADVANCED RESEARCH (RTRA)

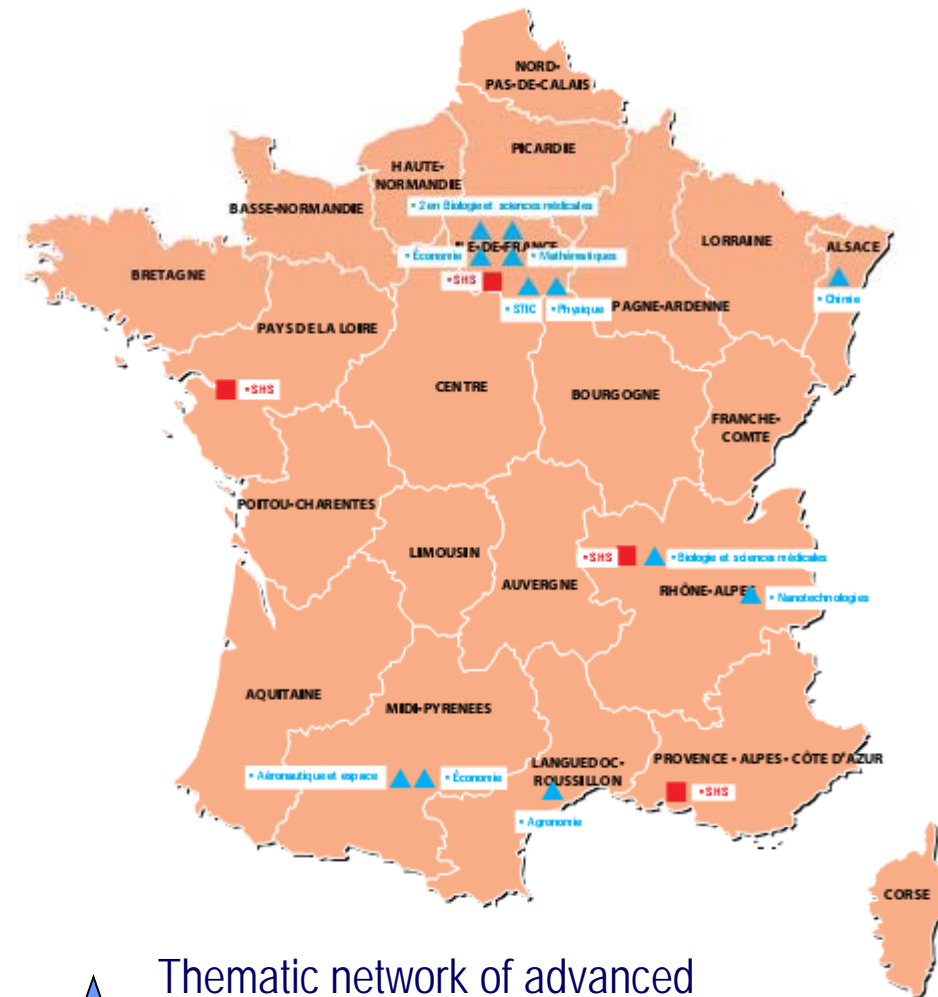
Example of RTRA:  
“Nanosciences at the limits of nanoelectronics”

| Grenoble area

| Partners:

- CEA (Atomic Energy Center)
- CNRS (National Center for Scientific Research)
- INPG Engineering School (Institut National Polytechnique de Grenoble)
- University Joseph Fourier (UJF)

| 670 researchers in 35 labs

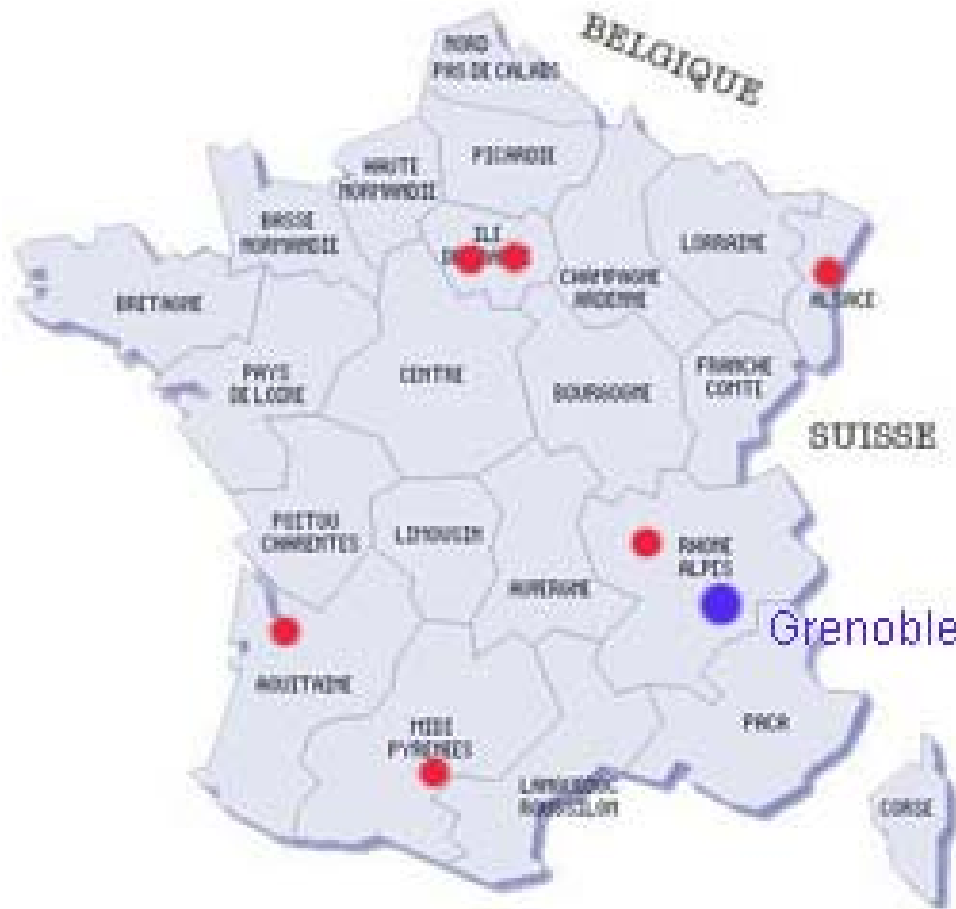


Thematic network of advanced Research (RTRA)



# IDEX « INVESTMENT FOR THE FUTURE » – Emerging 5 – 10 « campuses of excellence »

7 IDEX preselected out of 17 projects in April 2011, 3 winners July 2011



- | Grenoble-Alpes U. of Innovation
- | PRES University of Lyon
- | PRES University of Toulouse
- | PRES University of Bordeaux
- | PRES Sorbonne Univ. (Paris)
- | PRES University of Paris Sciences and Letters
- | PRES University of Strasbourg

Total funding: of 7,7 B€

Second round of selection in process:

**4 preselected + 12 new proposals**



## Universities to become the centre of national research systems (3)

### Establishing laboratory of excellence in universities (2010 – )

**Russia “Megagrants”** new laboratories in universities

- 40 selected in 2010
- 40 selected in 2011

up to 4 M€ per project (2-3 years period)

laboratory in universities, most directors from abroad  
operated by the Russian MES

**France “Labex”** a part of the “Investment for the future” programme

- 100 labs selected in 2010
- new a call open for 2011

the overall funding of 1 B€ in the frame of the “big loan”  
extended over up to 10 years  
operated by Agence Nationale de la Recherche (ANR)





## Universities to become the centre of national research systems (4)

### Universities *versus* Research performing organizations in national STI policies

- Russia** Interaction between universities and Russian Ac. of Sci. weak  
Focus is clearly to support research in universities  
Support for the RAS is limited, its reform is desirable
- France** Interaction between universities and res. perf. org. – strong  
Effort to shift administration of research units from res. perf. org. to universities (resulting from university freedom law)  
Reform of res. performing organizations  
(namely CNRS) completed



## « Silicon valleys » in Russia and France

**Both countries have an ambition to have their « silicon valleys » as major hubs for research and innovation**

**Russia** **SKOLKOVO** (*dear to Pres. Medvedev*)

- a new infrastructure to be built
- outcome uncertain

**France** **PLATEAU de SACLAY** (*dear to Pres. Sarkozy*)

- integration and modernization of existing infrastructures
- projects of 3 B€, 12 000 researchers, 30 000 students
- difficulties to find a synergy between participating institutions

**Sophia Antipolis** (near Nice, started in 1970)

technopole of STIC and life sciences

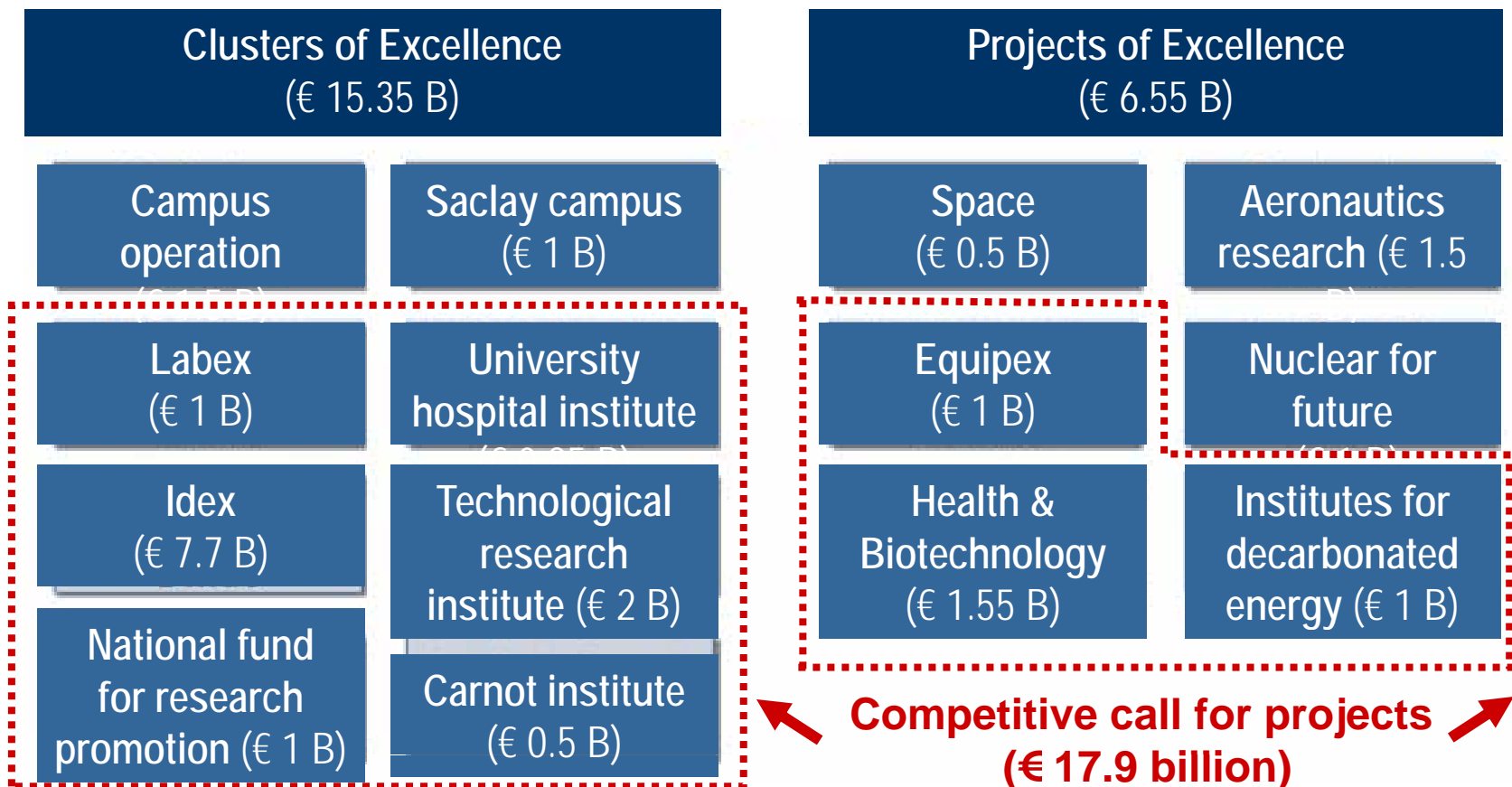
1400 entreprises, 30 000 jobs, 5000 students



# INVESTMENT FOR THE FUTURE Governmental Programme

Investment for the future: governmental programme financed by the « grand emprunt », or **big loan**

€ 21.9 billion to be allocated to research and higher education





*Thank you for your attention*