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**Recent developments in organization
of S&T sector in Russia; *comparison
with the situation in France***

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Outline of the talk

- Russian Academy of Sciences - flagship of the Russian fundamental science: budget, excellence, evaluation
- Russian universities and reinforcement of their research activities
- Financing research in Russia (incomes of permanent researchers, project oriented support)
- International cooperation (bilateral and European projects)



Funding of elite organizations performing basic research (2007 - 2008 data)

Organization	NASU Ukr	RAS Rus	CAS Czech R	CNRS France	Max Planck. G Germany
<i>Characteristics</i>					
<i>Number of researchers</i>	19 820	49 683	2600	11 500	4 417
<i>Budgetary financing (M€)</i>	181	948	200	2 300	1 176
<i>Off-budgetary financing (M€)</i>	132	597	140	510	258
<i>Total financing (M€)</i>	313	1 545	340	2 810	1 434
<i>Financing per researcher (T€)</i>	15.8	31.1	131	244	325

1 € = 8 hr.



Highly cited researchers working in Russia – leadership of RAS

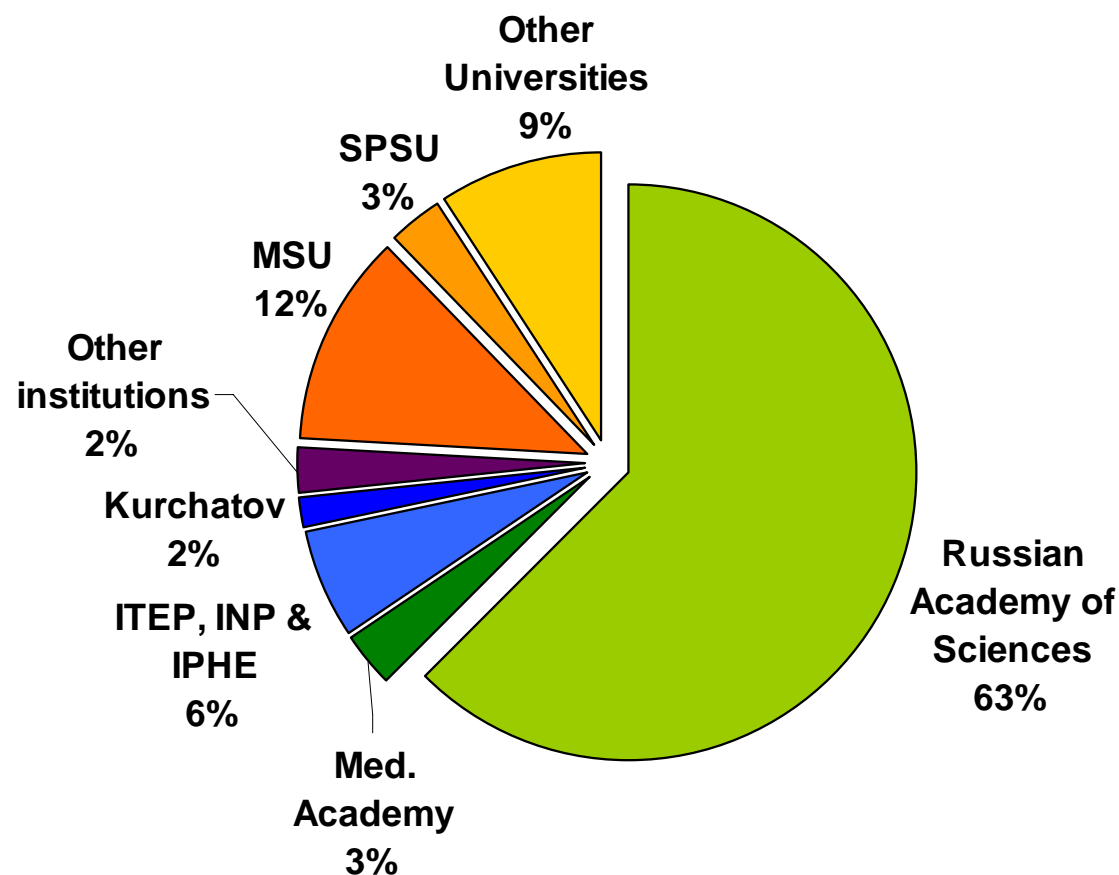
2402 researchers

- cited at least 1000 times

or

-cited at least 100 times in the papers of the past 7 years

Thompson Reuters database : citations starting in 1986.



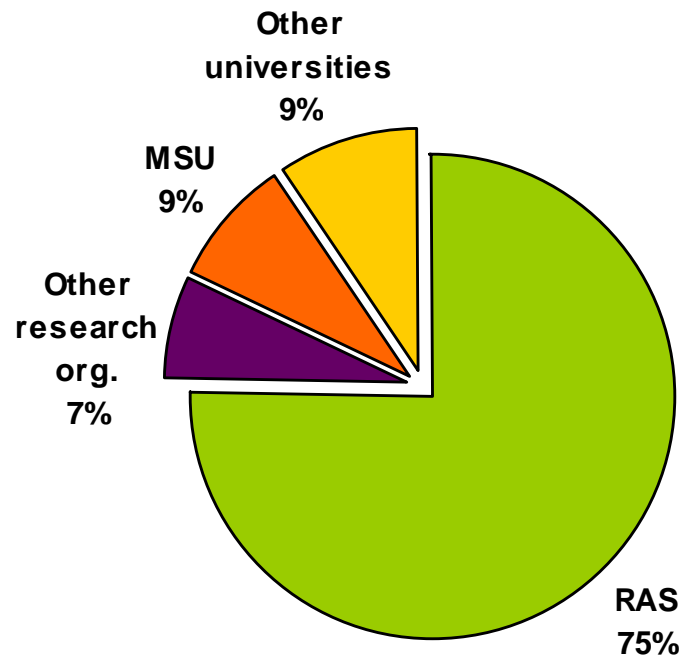
Results of the projects « Who is who in Russian science » (Dynasty / Scientific.ru)



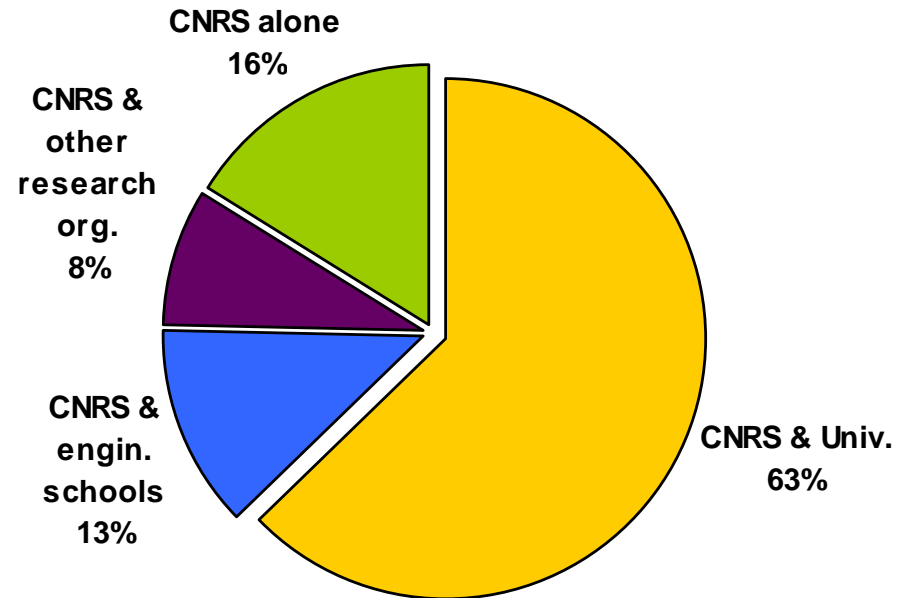
Bottom – up cooperation projects between the CNRS and Russia in basic research – leadership of RAS teams

PICS « international project of scientific cooperation » (3 year project)
138 projects with Russia 2004 – 2011 (agreement CNRS-RFBR) :

Russian teams by Organizations



French teams by Organizations





Evaluating research and higher education in France

Agence d'évaluation de la recherche et de

l'enseignement supérieur (AERES) established in 2007

budget 14,4 M€ (2009)

Tasks:

- *evaluation of universities and research organizations*
- *evaluation of research units (laboratories)*
- *assessment of internal evaluation procedures*
- *evaluation of university programmes and diplomas*

Composition :

- *President (scientist)*
- *25 board members (most are scientists, 4 years assignments)*
- *three departments (institutions, units, programmes and degrees)*
- *staff of 106 scientific delegates and 70 administrative staff*
- *3700 experts called to evaluation committees per year
(20% from abroad)*

For more information see: <http://www.aeres-evaluation.com/>



Reinforcement of research in Russian universities

Tools

- Classification of Russian universities (2 + 7 + 29) - leadership of the Moscow State university
- Programme for strengthening innovation projects between universities and enterprises
- Attracting high level researchers to universities

Main problem

low motivation of personnels (15-20 % involved in research) - low attractiveness of university careers

low incomes

high teaching loads

Teaching loads in France: 128 or 192 hours/year of plenary lectures or seminars

PhD degree obligatory in France for all new university teacher-researcher



« Megagrants » for universities

Russian version of an ERC tool (« advanced grants »)

	Proposals (% of total)	Projets selected (% of total)	Average age of project leaders
Russians in Russia	43 %	10 %	54,5
Russian speking diaspora	22 %	50 %	50
Foreigners	35 %	40 %	64

- Concerns:** - sustainability of established laboratories beyond 2012
- new strong labs in a weak university environment



Financing research in Russia

Incomes of permanent researchers – unhealthy trends

- Necessity to increase low budgetary salaries with “soft” project money
- Disparity between salaries of seniors researchers (administrators) and junior scientists

Incomes of permanent researchers in France are limited to budgetary salary, ratio between highest and lowest salaries at CNRS below 3

Project oriented support – main sources

- Obrnauka target programs – contractor / supplier logics (“lots”)
- Foundations (budgets limited, small projects only – 8 - 12 k€ per year)
- Programmes of RAS (limited to academic institutes)

Absence of an agency in Russia playing a role comparable to NSF (USA), DFG (Germany), ANR (France)



The salaries of CNRS researchers

Starting gross salary of a junior researcher : 2 120 € (= Index 1)

Highest gross salary of a leading researcher : 6 170 € (= Index 2,91)

	<i>Number of researchers</i>	<i>Average age</i>	<i>Index</i>	<i>Average gross salary</i>
<i>Junior researcher CR2</i>	12 %	42,5	1 – 1,24	3 410
<i>Advanced researcher CR1</i>	48 %		1,05 – 1,81	
<i>Leading researcher DR2</i>	30 %	53,5	1,45 – 2,12	4 790
<i>Leading researcher DR1</i>	9 %		1,81 – 2,56	
<i>Leading researcher DRCE</i>	1 %		2,56 – 2,91	
Total	11 433	47	1 – 2,91	3 960



International cooperation (bilateral and European projects)

Tools of nineties – INTAS, ISTC projects

- Assisting scientific community in the post soviet space
- Sponsoring selected laboratories / scientists
- Objectives: decreasing brain drain (INTAS), avoiding proliferation (ISTS)
- *Have become progressively obsolete in Russia*

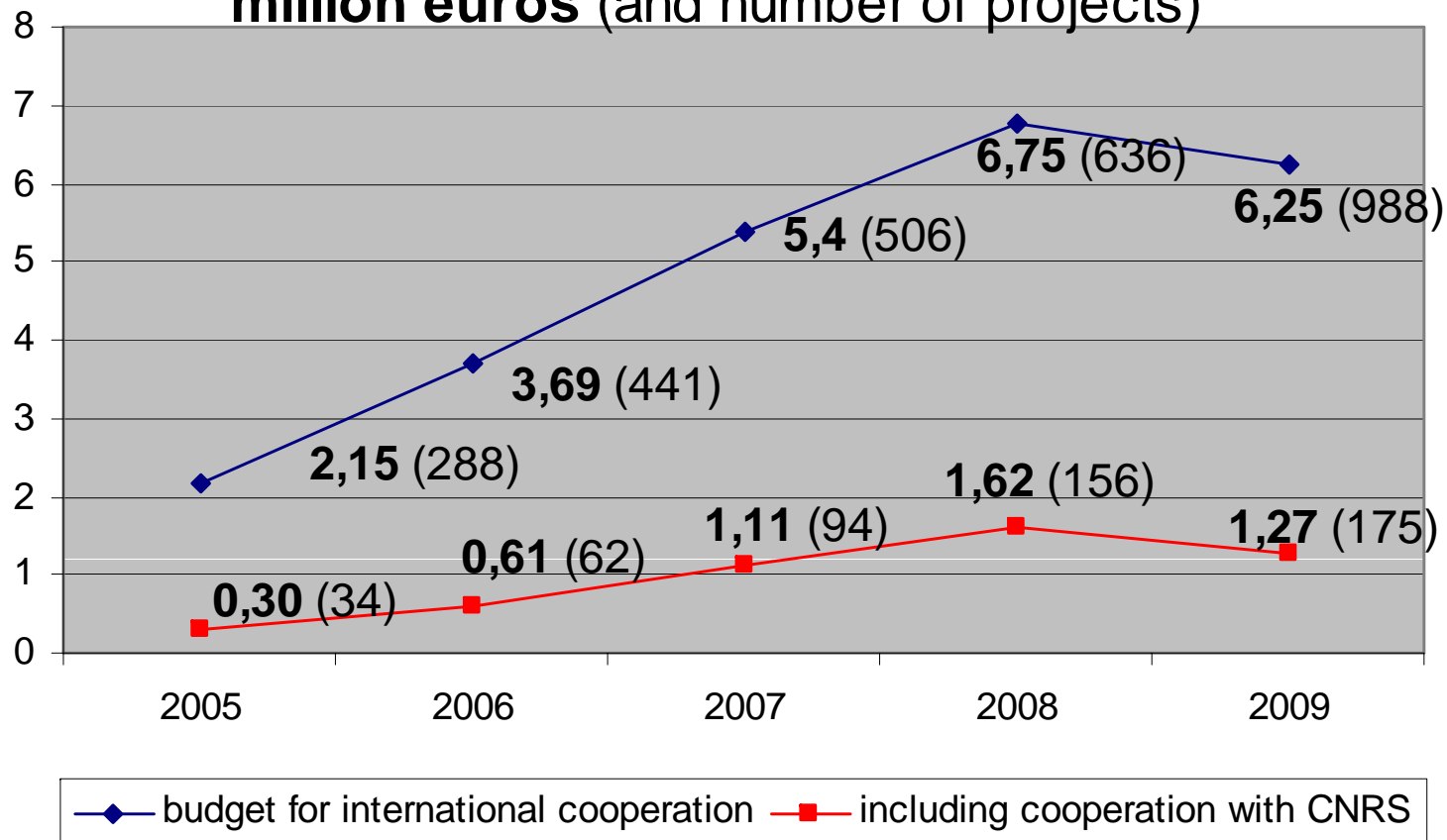
Tools after 2000

- Bilateral programmes focusing mainly to mobility are increasing – main partner RFBR; typical funding level on each side 10 k€/year
- “Obrnauka” does not have real bilateral cooperation on its agenda
- Specific European calls during FP7 with Russia – main partner Obrnauka; typical funding level on each side (0,5 – 1 M€/year)

Cooperation research projects of medium size are missing (50-100 k€/year)



Evolution of the RFBR budget for international cooperation and for cooperation with CNRS expressed in million euros (and number of projects)





Thank you for your attention