

Government Reforms in Science as the Major Challenge for the Russian Scientific Community

Irina Dezhina,
Head of Analytical Department, Skoltech,
Leading researcher, Gaidar Institute for Economic
Policy
i.dezhina@skoltech.ru

Endless reforms

- **1992-1996:** establishment of science foundations, program to integrate research and education (“Integration”).
- **1997-2001:** -
- **2002-2008:** creation of technical and financial (RVC, ROSNANO) infrastructure for commercialization.
- **2009- mid-2013:** new expensive projects (research universities, megagrants)
- **Mid-2013-current:** Academy reform, 5 – top 100 program. New Strategy for S&T development.

Government Agencies

FASO (https://fano.gov.ru/ru/press-center/card/?id_4=37994):

- Young scientists – 45% of research staff;
- Younger directors of institutes;
- 29% salary raise for researchers (March 2017 relative to 2013);
- Publications in peer-reviewed journals: 12.7% increase (for 2013-2015);
- New federal research centers created to advance promising R&D projects.

Ministry of education and science:

- Modern labs created in universities
- Growing number of foreign scholars at Russian universities
- High growth of publications by university researchers
- Improved standing of Russian universities in international rankings

Scientific Community

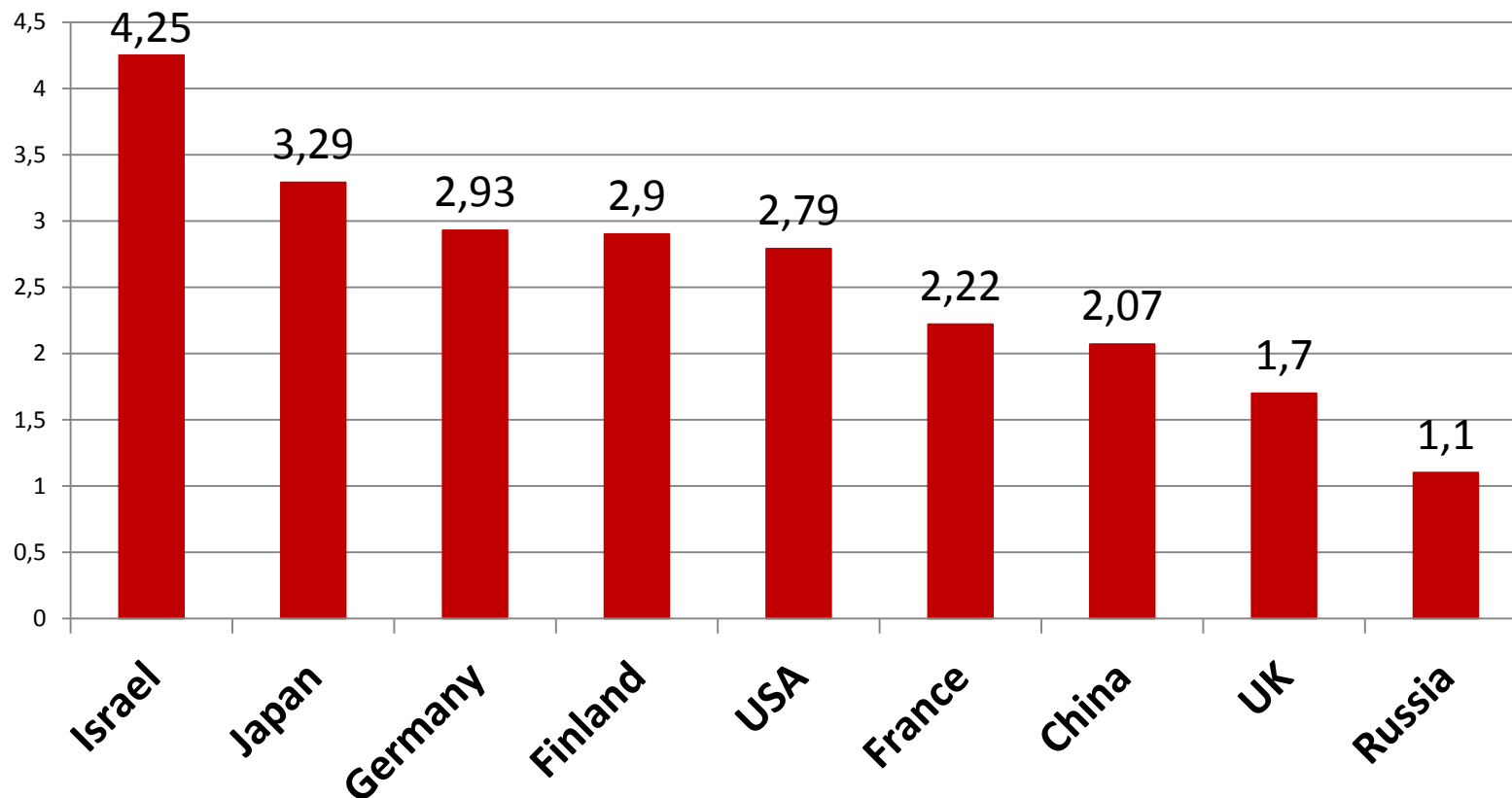
- September 2016 - “week of protest” (RAS Trade union);
June 2017 – “action of protest” (Moscow, RAS):
 - Concern: stagnation and movement towards poverty
 - Appeal: to increase funding of science
- **Suspensions:** latent cuts of salary (part-time employment)
- **Wish:** state protectionism (a centralized system of scientific organization; addressing military needs) (Survey of RAS professors, 2017. Source: <http://www.russia2035.ru/works/future-science/>)

Funding: No Hope for Improvement?

- Decreased share of expenditures on R&D in the GDP: 2016 – 1.1%, 2015 – 1.13%, 2014 – 1.19%
- Share of BERD is low; share of the government funding – about 70%
- **Strategy for S&T Development:** by 2035, **share of R&D in GDP – 2%**, state budget and private sources - equal

Expenditures on R&D (% of GDP)

2016 or latest year available



Draft Budget for R&D, 2018-2020

Budget line	Funding for 2018, billion RUR	Changes in funding, % of change to the previous year	
		2019	2020
Basic research	151.7	+1.8	+2.0
Basic research conducted by Academy institutes	83.2	-2.8	+2.3

Allocations for basic research in total budget for civilian R&D, %: 2018 – 41.9%, 2019 - 44%, 2020 - 45,5%.

France - 45%, UK - 40%, EU - 52%, USA -53%.

Other Reasons for Disparity in Views

- Low base salaries
- Growing stratification within scientific community
- Fear of layoffs among researchers
- Difficulty to adjust to new requirements (bibliometric assessment)
- Lack of understanding and trust in government initiatives

Disparity in Salary of Researchers and Administrative Staff

Salary of Researchers versus Average Salary in Russia (thousand RUR per month)

	2012	2013	2014	2015
Average in Russia	26.6	29.8	32.5	34.0
Average for Researchers	32.5	41.6	48.2	51.8

Source: Nauka,ologii i innovatsii v Rossii – 2016. Short Statistical Yearbook. M.: ISSRAS, 2016, p.48.

BUT: annual income of top-5 university rectors - average 3.45 million RUR per month; top-50 rectors and vice rectors: the lowest is 750 thousand RUR per month

Source:

<http://www.rbc.ru/special/society/03/06/2016/574db78e9a794755d4a7e2ee>

Strategy for Scientific and Technological Development

- Signed by the President on Dec.1, 2016
- Governance based on Grand Challenges (problems of demography, security, energy efficiency and saving, etc.)
- New S&D priorities that should address Grand Challenges – wide range of disciplines

Narrowing Scope of S&T Priorities: 2016 versus 2011

2011 Priorities (approved by the President)	Strategy for S&T Development Priorities (2016)
Nanosystems	
Information Technologies	Big Data, machine learning and artificial intelligence
Life sciences	Personalized healthcare
Conservation	Ecologically clean agro- and aqua- economy
Transport and space systems	Intellectual transport, logistical and telecommunication systems
Energy efficiency, nuclear power engineering	Ecologically clean energy and energy efficiency
Safely and counteracting terrorism	Counteracting terrorism and other risks
Promising defense technologies	
	Advanced manufacturing and robotic systems
	New materials and methods to construct them
	Addressing challenges using methods of social sciences and humanities

Conclusions

- The perceptions of reforms by policy makers and researchers are different.
- There is growing stratification within scientific community and concerns regarding volume and distribution of government funding.
- The new Strategy for S&T development calls for support of a broad spectrum of disciplines relevant to the “Grand Challenges”. In practice the preference is given to only several directions.