

Information Exchange in Science and Technology between the
European Research Area and Eastern
European/ Central Asian Countries



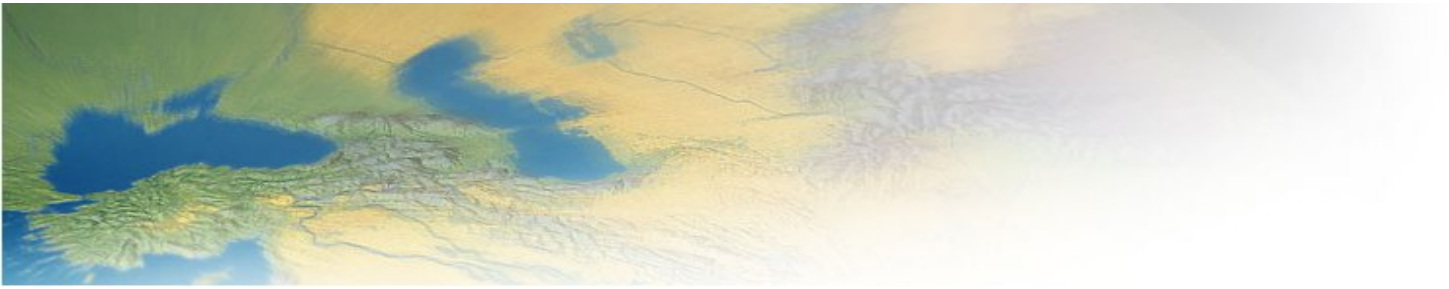
Russia

Country Report

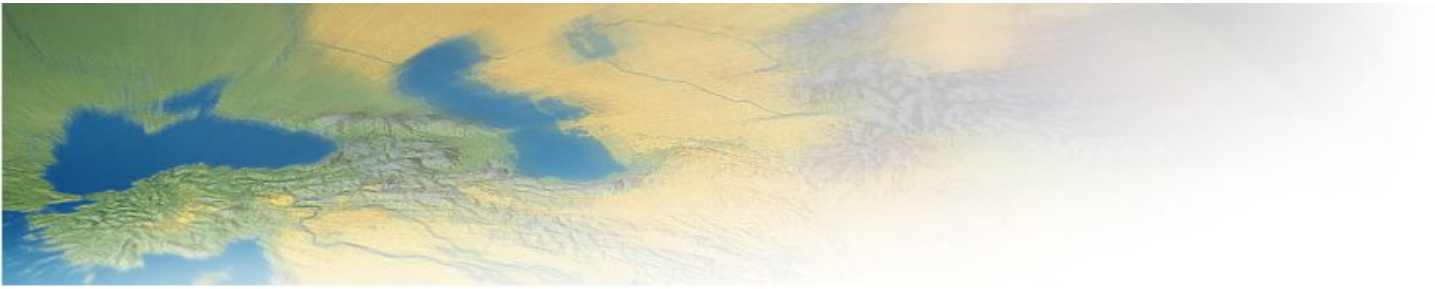
(last updated 18 October 2010, source: HSE)

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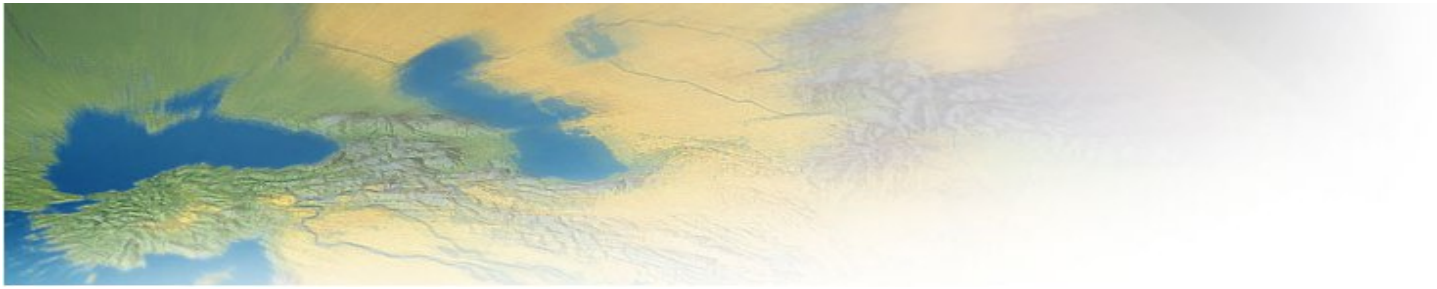


Content	page
General Information about Russia	3
S & T related information:	
• Research structure	4
• Research policy	8
• International co-operation in research, science and technology	11



General information about Russia:

Official name of the country	Russian Federation
Population	142 million (2008, Rosstat)
Area	17075 thousand square kilometers
Capital	Moscow
System of Government	Presidential parliamentary republic
Head of Government	Dmitry Medvedev (President), Vladimir Putin (Prime Minister)
Science Minister	Andrey Fursenko
Parliament	Federative Council (upper house), Duma (lower house)
Administrative structure	Federal subjects grouped into eight federal districts.
Geography	The Russian Federation stretches across much of the north of Eurasia.



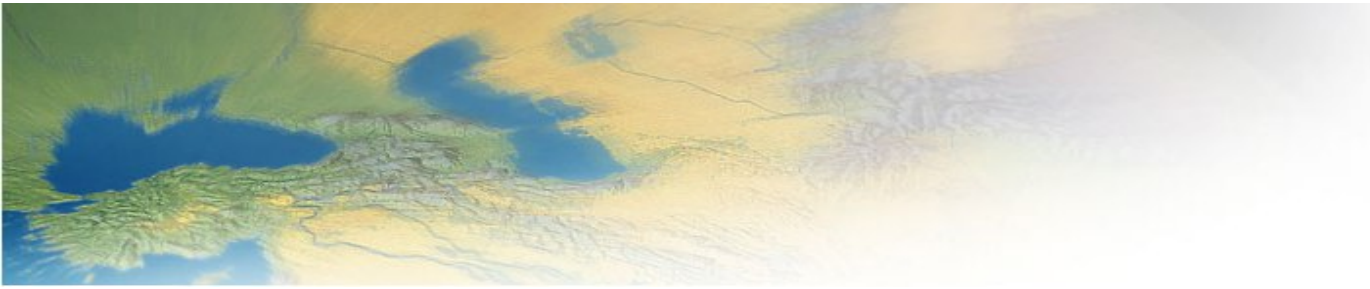
Research structure

Characterisation of the research system

Table 1. Main Science and Technology Indicators¹

	2005	2006	2007	2008
Gross domestic expenditure on R&D, million roubles, before 1998 – billion roubles:				
at current prices	230785.2	288805.2	371080.3	431073.2
at constant 1989 prices	4.6	4.9	5.6	5.48
Gross domestic expenses on R&D:				
as a percentage of GDP	1.07	1.07	1.12	1.04
as a percentage compared to the previous year at constant 1989 prices	98.3	108.3	112.9	98.4
Federal budget appropriations on civil S&T, million roubles, before 1998 – billion roubles:				
at current prices	76909.0	97363.2	132703.4	162115.9
at constant 1991 prices	4.16	4.55	5.46	5.65
as a percentage of GDP	0.36	0.36	0.40	0.39
National R&D personnel, thousand	813.2	807.1	801.1	761.3
Researchers, thousand.	391.1	388.9	392.9	375.8
Researchers per R&D institution, head-count	110	107	99	103
Researchers per 10000 employed, head-count	59	58	58	55

¹ Science Indicators: 2010. Statistical data book. Moscow, Higher School of Economics, 2010. pp. 18-20.



Research performers

The S&T institutional structure has a number of specific features that distinguish Russia from most of the other developed countries. There are about 3,600 R&D organizations operating in Russia (see Table 1).

Table 2. R&D institutes by type²

	2006	2007	2008
Total	3622	3957	3666
Research institutes	2049	2036	1926
Design organisations	482	497	418
Construction project and exploration organisations	58	49	42
Experimental enterprises	49	60	58
Higher education institutions	417	500	503
Industrial enterprises	255	265	239
Others	312	550	480

2 Science Indicators: 2010. Statistical data book. Moscow, Higher School of Economics, 2010. p. 26.

Russian S&T organizations are divided into four main sectors, depending on the industry and their main functions:

- Governmental sector organisations which provide support to government institutions, working for the society as a whole.
- Business enterprise sector organisations which support companies producing goods and services for sale (both privately and publicly owned).
- Higher education sector organisations engaged in highly skilled professionals training at higher education institutions.
- Private non-profit sector organisations, including private companies which do not operate for profit.

The years of reform have brought significant changes to the governmental and business enterprise sectors. Paradoxically for a market economy, one can notice considerable growth in the governmental sector and an equally significant decline in the number of S&T organisations in the business enterprise sector.

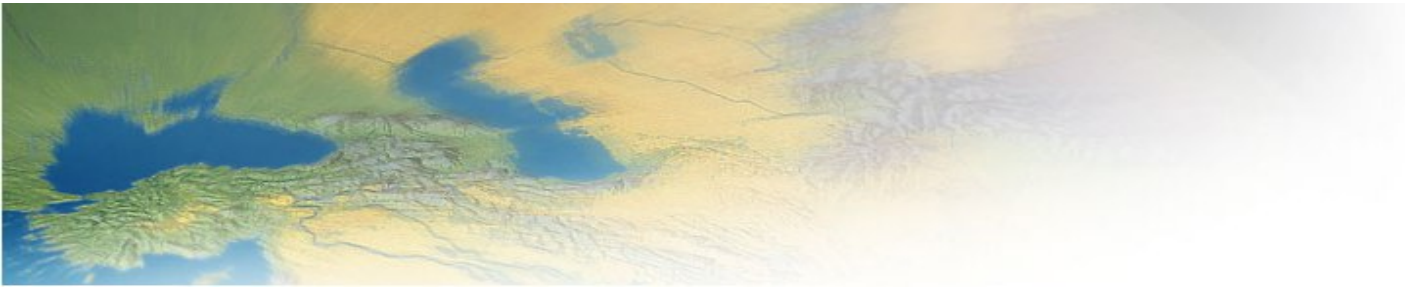


Table 3. Number of R&D organisations by sector³

	Total	Governmental sector	Business enterprise sector	Higher education sector	Private non-profit sector
2007	3957	1483	1742	616	116
2008	3666	1429	1540	603	94

³ Science Indicators: 2010. Statistical data book. Moscow, Higher School of Economics, 2010. pp. 158, 176, 203

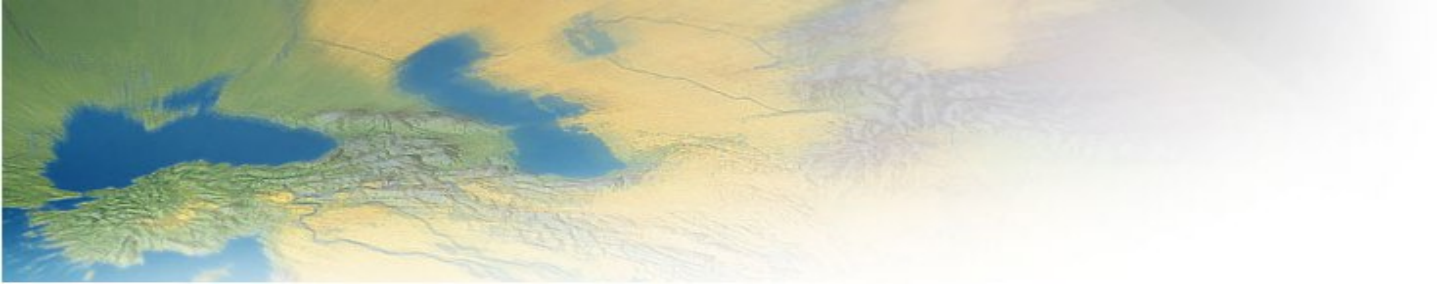
Research funding system

R&D funding sources in the Russian Federation include the following:

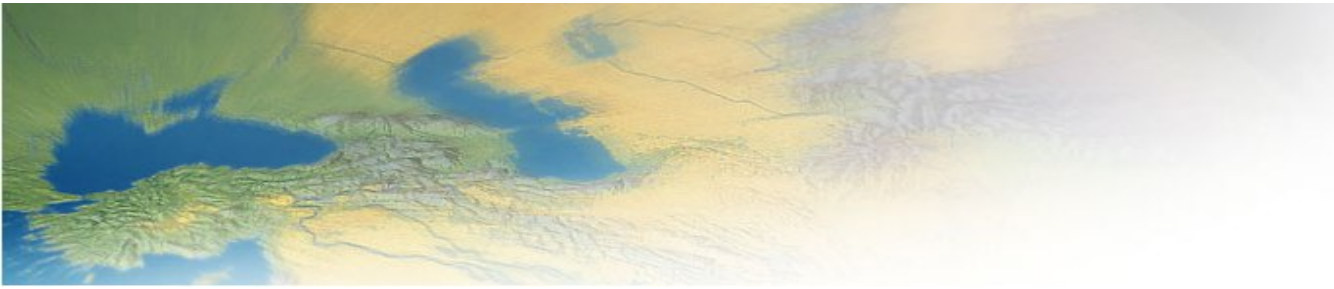
- Budget funding (including federal, regional and local budgets).
- Budget allocations for higher education institutes.
- Non-budgetary foundations.
- Money from foreign sources.
- Governmental sector organisations.
- Business enterprise sector organisations.
- Higher education sector organisations.
- Private non-profit organisations.
- Own profits of R&D organisations.

The state budget remains the biggest source of funding for Russian science. Almost 97% of the funding comes from the federal budget, and only 3% from all regional budgets put together. During the last ten years, the structure of sectoral R&D expenditures in Russia has remained practically unchanged. Almost all expenditure is received by the business enterprise (about 60%) and governmental (about 30%) S&T sectors. The business enterprise sector's share in the total R&D expenditure in Russia is comparable with the level in other developed countries (e.g. the USA has 70.1%) and even exceeds the average for the EU (63.3%).

However, the composition of this sector in Russia is quite different from other developed countries. In Russia, the business enterprise sector includes many government-owned companies and organizations, while in other countries it mostly comprises private companies. In 1998-2008, federal budget appropriations for civil R&D grew 4.22 times (at constant 1991 prices), mainly due to increased federal budget funding. Expenditure on RAS organizations for the same period increased more than two-fold. As a result, the RAS' share in total R&D expenditure grew from 10.2% in 1995 to 12.97% in 2008.



The share of governmental funding in the gross domestic R&D expenditure in 2008 was close to 65%, which is much more than, for example, the average for the OECD countries (12-15%). Expenditure on R&D undertaken in the governmental sector amounts to about 0.3% of the GDP.



Research policy

Context of research policy

According to **Article 13 of the Federal Law No. 127-FZ of August 23, 1996 “On Science and State Science and Technology Policy”**, the procedure for shaping of state S&T policy in science and technology is as follows:

Medium-term and long-term trends for the state science and technology policy are defined by the President of the Russian Federation on the basis of a special report prepared by the Government of the Russian Federation.

Every year, in accordance with the President’s Letter on the current situation in the Russian Federation and with proposals of the Government of the Russian Federation, the legislative public authorities define the annual amounts allocated for the execution of federal S&T programmes and projects, the amount of financing of scientific organisations and the amounts channeled to federal foundations dealing with the support of S&T activity.

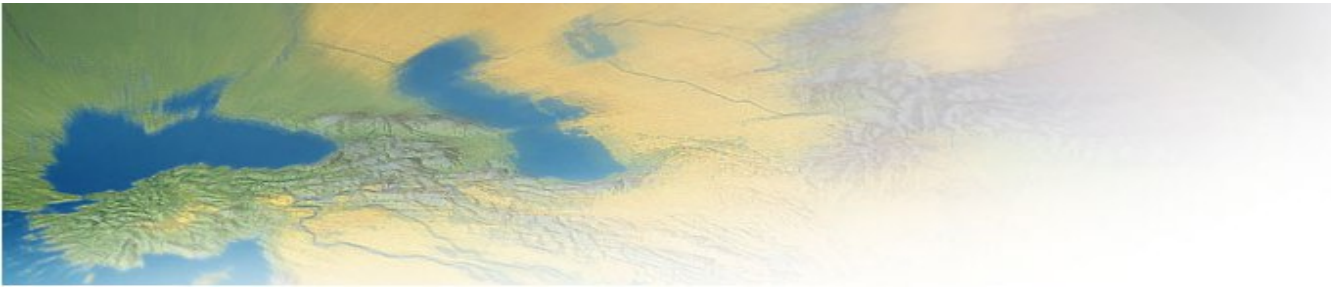
The definition of the main trends for state S&T policy, scientific and technological forecasts, the selection of priorities for the development of science and technology, the development of recommendations and proposals on the implementation of scientific programmes, S&T programmes and projects as well as on the use of S&T achievements are all carried out under the conditions of openness, using various forms of public discussions, evaluation and competitive procedures. State S&T policy is developed and implemented by the relevant executive authorities with the involvement of economic entities and taking into account the general state S&T policy.

Research policy: objectives and priorities

National science and technology priorities of the Science and Innovation Development Strategy of the Russian Federation are formulated as *priority S&T areas*⁴ and *critical technologies*⁵. The current priorities were approved by the President of the Russian Federation in May 2006 and are set for the period until 2015. The priority S&T areas define the general trends capable of providing new technologies and facilities that contribute to the development of national economy and social sphere.

The current List of Priority S&T Areas includes eight priorities:

- Information and telecommunications systems
- Nanosystems industry and materials



- Living systems
- Rational nature utilisation
- Power engineering and energy saving
- Transport, aviation and space systems
- Safety and terrorism counteraction
- Prospective armaments, military and special equipment

Detailed priorities are specified in the List of Critical Technologies of the Russian Federation, which forms the background for making decisions on concentrating public resources in the most important areas of science, technologies and innovation as well as on implementing the available S&T potential.

The first five priorities are implemented via traditional instruments – national S&T and innovation programmes, Federal S&T Programme “Research and Development in Priority Areas of Science and Technology,” as well as for other federal and sectoral goal-oriented programmes. Thematic priorities of the current Federal Targeted Programme “Research and Development in Priority Fields of S&T Complex of Russia for 2007-2012” are as follows:

- Nanotechnologies & materials
- Life sciences
- Power engineering & energy efficiency
- Rational nature management
- Information-communication technologies

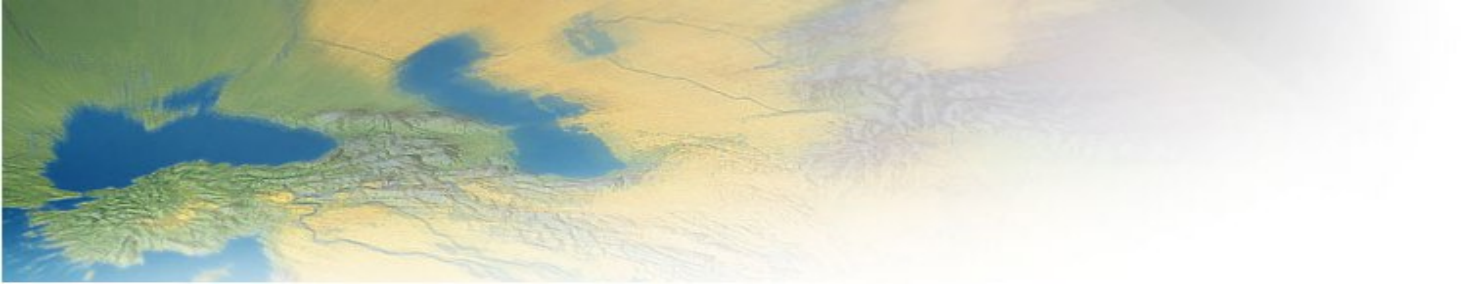
In 2010 the President named the five priorities for modernization of Russia’s economy: nuclear and information technologies, space, biomedical research and energy efficiency.

Innovation-led growth was a clear priority for the Government’s two anti-crisis programmes in 2009 and 2010.

Policy making and coordination

The national S&T strategy is primarily developed by the following bodies:

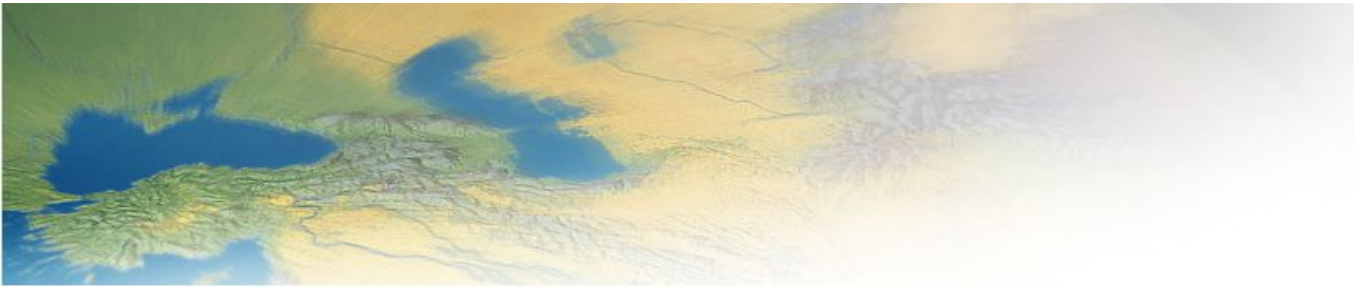
- The main federal decision-making bodies in the sphere of S&T and innovation are the Governmental Commission for High Technologies and Innovation now led by the Prime Minister, and the President-led Commission for Modernisation and Technological Development. A new Department for Science, High Technologies and Education was set up within the Government’s Executive Office.



- The Ministry for Education and Science: Ministry Board, Department for International Co-operation.
- The Committee for Education and Science at State Duma submits draft federal laws to the committees, commissions and delegate associations of the State Duma, to the President of the Russian Federation, the Government of the Russian Federation and the legislative (representative) and executive bodies of the constituent entities of the Russian Federation, for example, in April 2007, a draft federal law No. 407108-4 "On amendment to Article 2 of the Federal law "On Science and state S&T policy" (related to innovation activity)"

⁴Subject areas of S&T with the potential for making a major contribution to national security, economic growth, competitive capacity of Russian companies through the development of the technological foundations for the national economy and R&D-intensive production facilities.

⁵Sets of technological solutions that create potential for further development of various technological areas, possess a broad range of innovative applications in various sectors of economy and as a whole make the greatest contribution towards resolving the major problems of implementing scientific and technological priorities.



International co-operation in research, science and technology

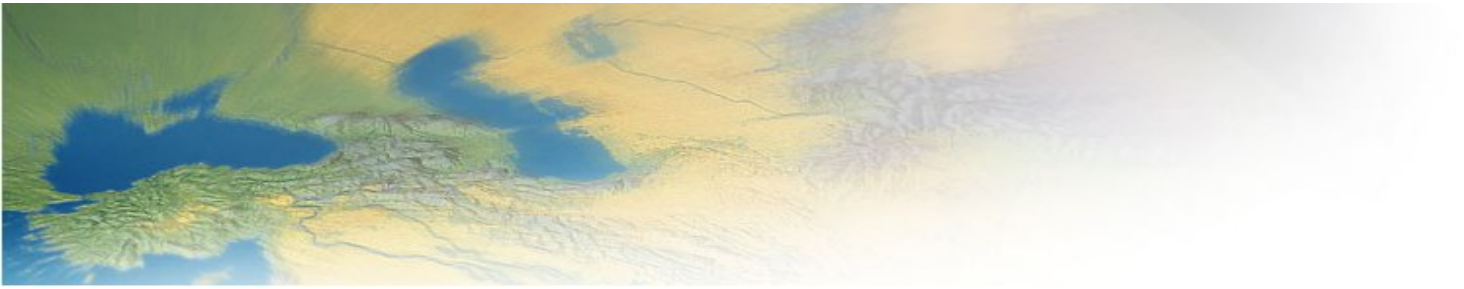
Scope and objectives

According to **Article 16 “International Scientific and S&T Co-operation of the Russian Federation” of the Federal Law No. 127-FZ** of 23 August 1996 “On Science and State S&T Policy” adopted by the State Duma on 12 June 1996 and approved by the Federal Council, “Public authorities of the Russian Federation create the necessary conditions for international scientific and S&T co-operation. The actors in scientific and/or S&T activities may join international scientific and S&T organisations or associations, participate in international scientific and S&T programmes or projects, scientific and S&T programmes or projects of foreign countries, conclude agreements (contracts) and other agreements with foreign legal entities to perform work in or outside of the Russian Federation in the procedure prescribed by the legislation of the Russian Federation”.

The Russian Federation supports scientific and S&T co-operation with foreign countries on the basis of existing international agreements of the Russian Federation, international scientific and S&T programmes and projects, and promotes the expansion of the S&T co-operation of researchers and research organisations, as well as organisations of other types. Due to the availability of highly integrated S&T potential and because of established S&T links, public authorities of the Russian Federation encourage the development of S&T co-operation on the basis of multilateral and bilateral agreements, first of all in the frame of the Commonwealth of Independent States (CIS) and the Eurasian Economic Community (EurAsEC).

EU-Russia co-operation in science and technology is regulated by Articles 62-63 of the [Partnership and Co-operation Agreement \(1997\)](#), [Agreement on Co-operation in Science and Technologies between the Government of the Russian Federation and the European Commission](#) (signed in November 1999, [renewed for the next five-year period in late 2003](#), came into force in February 2004 and valid until 2009) and the [Roadmap for the EU-Russia Common Space of Research and Education including Cultural Aspects](#) (approved at the EU-Russia summit in 2005). A road map for the subsequent period entitled [European Community – Russia Scientific and Technological Cooperation. A Roadmap for Action, 2009-2011](#) is currently in force.

The Russian Federation Medium Term Strategy towards the European Union has been developed ([Russia’s Middle Term Strategy towards the EU](#)) for 2000 – 2010.



Source:

*Dr. Anna Pikalova
Higher School of Economics (HSE)
Myasnitskaya 20
101000 Moscow, Russia*

Imprint

International Bureau of the Federal Ministry of Education and Research (BMBF)
Heinrich-Konen-Str. 1
53227 Bonn
Phone: +49 228 / 3821-0
Fax: +49 228 / 3821-444
E-Mail: ib@dlr.de
WWW: www.internationales-buero.de/

