



Ministry of Education and Science
of the Russian Federation



Federal State
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HIGHER SCHOOL OF ECONOMICS
NATIONAL RESEARCH UNIVERSITY



Science and Technology Indicators in the Russian Federation

Data Book



Ministry of Economic Development
of the Russian Federation



Federal State
Statistics Service



HIGHER SCHOOL OF ECONOMICS
NATIONAL RESEARCH UNIVERSITY

Science and Technology Indicators in the Russian Federation

Data book

Moscow 2015

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Science and Technology Indicators in the Russian Federation : Data Book / E. Chernovich, K. Ditkovsky, S. Fridlyanova et al. National Research University Higher School of Economics. – Moscow: HSE, 2015. – 318 p.

This data book continues the series of publications on various aspects of science and technology development in the Russian Federation. It opens with a set of tables which, along with the main indicators of science and technology, contain the main indicators of innovation. Statistical data on the composition of organisations engaged in research and development, R&D personnel and funding, their material and technical base are provided. Special sections are devoted to intellectual property, commercialisation and use of technology, international comparisons.

The publication uses information provided by the Federal State Statistics Service, the Ministry of Education and Science of the Russian Federation, Federal Service for Intellectual Property, CIS Interstate Statistical Committee, Organisation for Economic Co-operation and Development (OECD), European Commission, Eurostat, UNESCO, World Intellectual Property Organisation as well as the results of methodological and analytical studies conducted by HSE Institute for Statistical Studies and Economics of Knowledge.

In several cases, data on certain indicators improve on previous data.

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Symbols used in tables:

- ... data not available and not included in the totals,
- data not applicable,
- 0.0 insignificant value.

In some tables, details may not add up to the total because of rounding.

MAIN SCIENCE AND TECHNOLOGY INDICATORS

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
Gross domestic expenditure on R&D, <i>million roubles, 1995 – billion roubles:</i>											
at current prices	12149.5	76697.1	230785.2	288805.2	371080.3	431073.2	485834.3	523377.2	610426.7	699869.8	749797.6
at constant 1989 prices	2.49	3.32	4.55	4.94	5.58	5.49	6.07	5.72	5.76	6.15	6.27
Gross domestic expenditure on R&D:											
as a percentage of GDP	0.85	1.05	1.07	1.07	1.12	1.04	1.25	1.13	1.09	1.13	1.13
as a percentage of the previous year at constant 1989 prices	84.9	116.0	98.7	108.6	112.9	98.4	110.6	94.3	100.6	106.8	102.0
Gross domestic expenditure on R&D per one R&D institution, <i>thousand roubles, 1995 – million roubles:</i>											
at current prices	2993.2	18711.2	64718.2	79736.4	93778.2	117586.8	137396.6	149878.9	165786.7	196261.9	207988.2

(continued)

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
Gross domestic expenditure on R&D per one R&D employee, <i>thousand roubles, 1995 – million roubles</i>	11.5	86.4	283.8	357.8	463.2	566.3	654.4	710.6	830.2	963.6	1031.3
Gross domestic expenditure on R&D per one researcher, <i>thousand roubles, 1995 – million roubles</i>	23.4	180.1	590.1	742.5	944.6	1147.1	1315.8	1418.7	1628.9	1878.2	2031.9
Federal budget appropriations on civil S&T, <i>million roubles, 1995 – billion roubles:</i>											
at current prices	4413.6	17091.7	76909.0	97363.2	132703.4	162115.9	219053.4	237644.0	313899.3	355921.1	425301.7
at constant 1991 prices	2.48	2.03	4.16	4.57	5.47	5.66	7.50	7.13	8.12	8.57	9.67
Federal budget appropriations on civil S&T as a percentage of GDP	0.31	0.23	0.36	0.36	0.40	0.39	0.56	0.51	0.56	0.57	0.64

(continued)

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
R&D personnel, <i>thousand</i>	1061.0	887.7	813.2	807.1	801.1	761.3	742.4	736.5	735.3	726.3	727.0
As a percentage of the previous year	95.9	101.8	96.9	99.2	99.3	95.0	97.5	99.2	99.8	98.8	100.1
R&D personnel per one R&D institution, <i>headcount</i>	261	217	228	223	202	208	210	211	200	204	202
R&D personnel per 10 000 employment, <i>headcount</i>	160	138	122	120	118	111	110	109	109	107	107
Researchers, <i>thousand</i>	518.7	426.0	391.1	388.9	392.8	375.8	369.2	368.9	374.7	372.6	369.0
As a percentage of the previous year	98.7	101.4	97.4	99.4	101.0	95.7	98.3	99.9	101.6	99.4	99.0

(continued)

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
Researchers per one R&D institution, <i>headcount</i>	128	104	110	107	99	103	104	106	102	104	102
Researchers per 10 000 employment, <i>headcount</i>	78	66	59	58	58	55	55	55	55	55	54
Patent applications filed in the Russian Federation	22202	28688	32254	37691	39439	41849	38564	42500	41414	44211	44914
Patents granted in the Russian Federation	31556*	17592	23390	23299	23028	28808	34824	30322	29999	32880	31638
Development of advanced manufacturing technologies	...	688	637	735	780	854	897	864	1138	1323	1429
Use of advanced manufacturing technologies	...	70069	140983	168311	180324	184568	201850	203330	191650	191372	193830
Total receipts from technology exports, <i>thousand US dollars</i>	...	203493.5	389396.4	533385.9	630391.6	833164.4	618184.5	627887.5	584656.9	688469.9	770584.8
Total payments for technology imports, <i>thousand US dollars</i>	...	182908.0	954199.2	1128425.8	1426387.6	2087067.4	1619031.6	1425983.3	1862566.6	2043187.9	2463626.3

* Taking into account patents granted in exchange for invention certificates.

MAIN INDICATORS OF INNOVATION

	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Enterprises engaged in technological innovation as a percentage of all enterprises:													
mining and quarrying, manufacturing, electricity, gas and water supply	10.6	9.8	10.3	10.5	9.3	9.4	9.4	9.6	9.4	9.3	9.6	9.9	9.7
communications, computer and related activities*	12.1	13.5	14.3	14.7	15.3	12.5	11.2	10.9	10.1	10.8	9.9	10.3	10.3
Innovative goods and services as a percentage of total sales:													
mining and quarrying, manufacturing, electricity, gas and water supply	4.4	4.3	4.7	5.4	5.0	5.5	5.5	5.1	4.6	4.9	6.1	7.8	8.9
communications, computer and related activities	16.9	2.8	8.9	8.4	8.6	8.3	4.2	4.2	3.8	4.7	4.8	3.0	3.9
Expenditure on technological innovation, <i>million roubles</i> :													
mining and quarrying, manufacturing, electricity, gas and water supply:													
at current prices	49428.0	86394.6	105444.7	122850.5	125678.2	188492.2	207499.2	276262.3	358861.1	349763.3	469442.2	583660.6	746778.2
at constant 1995 prices	10462.7	13590.9	14576.3	14116.7	12105.3	15760.0	15245.3	17201.2	21906.1	18695.9	21650.6	25040.4	30253.5
communications, computer and related activities:													
at current prices	11794.1	6049.3	14782.7	19495.3	17544.4	18892.4	25125.5	24148.0	32790.9	38684.0	137754.0	83230.6	66133.4
at constant 1995 prices	2496.5	951.6	2043.5	2240.2	1689.9	1579.6	1846.0	1503.6	2001.7	2067.8	6353.2	3570.8	2679.2

(continued)

	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Expenditure on technological innovation as a percentage of total sales:													
mining and quarrying, manufacturing, electricity, gas and water supply	1.4	1.8	1.6	1.5	1.2	1.4	1.2	1.4	1.9	1.5	1.5	1.8	2.2
communications, computer and related activities	11.1	3.9	6.5	5.9	3.5	2.7	2.7	2.1	2.7	2.9	8.8	4.4	3.6
Innovative activity level (enterprises engaged in technological, marketing and organisational innovation as a percentage of all enterprises):													
mining and quarrying, manufacturing, electricity, gas and water supply	...	...	...	...	...	10.6	10.8	11.0	11.0	10.8	11.1	11.1	10.9
communications, computer and related activities	...	...	...	...	...	15.6	13.5	13.4	13.2	13.6	12.1	11.7	12.2
Enterprises engaged in marketing innovation during the reference year as a percentage of all enterprises:													
mining and quarrying, manufacturing, electricity, gas and water supply	...	...	...	...	...	2.3	2.5	2.6	2.4	2.5	2.5	2.2	2.1
communications, computer and related activities	...	...	...	...	...	4.4	4.5	4.5	4.7	4.7	3.9	3.2	3.1

(continued)

	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Enterprises engaged in organisational innovation during the reference year as a percentage of all enterprises:													
mining and quarrying, manufacturing, electricity, gas and water supply	3.2	3.5	3.5	3.7	3.4	3.5	3.2	3.1
communications, computer and related activities	5.4	4.8	4.5	4.7	5.1	3.9	3.6	3.5
Expenditure on technological, marketing and organisational innovation, million roubles:													
mining and quarrying, manufacturing, electricity, gas and water supply:													
at current prices	191341.5	213020.1	283194.8	365785.1	356163.5	474587.1	590341.6	756183.9
at constant 1995 prices	15998.2	15650.9	17632.9	22328.7	19038.0	21887.9	25327.0	30634.6
communications, computer and related activities:													
at current prices	20010.5	26405.2	27076.7	34821.9	40223.1	146419.4	86002.9	68115.1
at constant 1995 prices	1673.1	1940.0	1685.9	2125.6	2150.0	6752.9	3689.7	2759.5
Expenditure on technological, organisational and marketing innovation as a percentage of total sales:													
mining and quarrying, manufacturing, electricity, gas and water supply	1.5	1.3	1.4	1.9	1.5	1.6	1.8	2.2
communications, computer and related activities	2.7	2.8	2.3	2.8	3.0	9.4	8.6	3.7

(continued)

	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Small enterprises engaged in technological innovation as a percentage of all small enterprises:													
mining and quarrying, manufacturing, electricity, gas and water supply	1.3	...	1.6	...	1.6	...	4.3	...	4.1	...	5.1	...	4.75
Innovative goods and services as a percentage of total sales of small enterprises:													
mining and quarrying, manufacturing, electricity, gas and water supply	0.6	...	0.3	...	0.3	...	2.0	...	1.4	...	1.5	...	
Expenditure on technological innovation of small enterprises, million roubles:													
mining and quarrying, manufacturing, electricity, gas and water supply:													
at current prices	867.6	...	1296.5	...	1932.7	...	10608.2	...	6793.5	...	9479.3	...	13510.5
at constant 1995 prices	183.7	...	179.2	...	186.2	...	779.4	...	414.7	...	437.2	...	547.3
Expenditure on technological innovation as a percentage of total sales of small enterprises:													
mining and quarrying, manufacturing, electricity, gas and water supply	0.6	...	0.4	...	0.2	...	1.7	...	0.9	...	0.9	...	1.03

* In contrast to other service sectors, innovation in communications, computer and related activities was statistically monitored during the entire period considered.



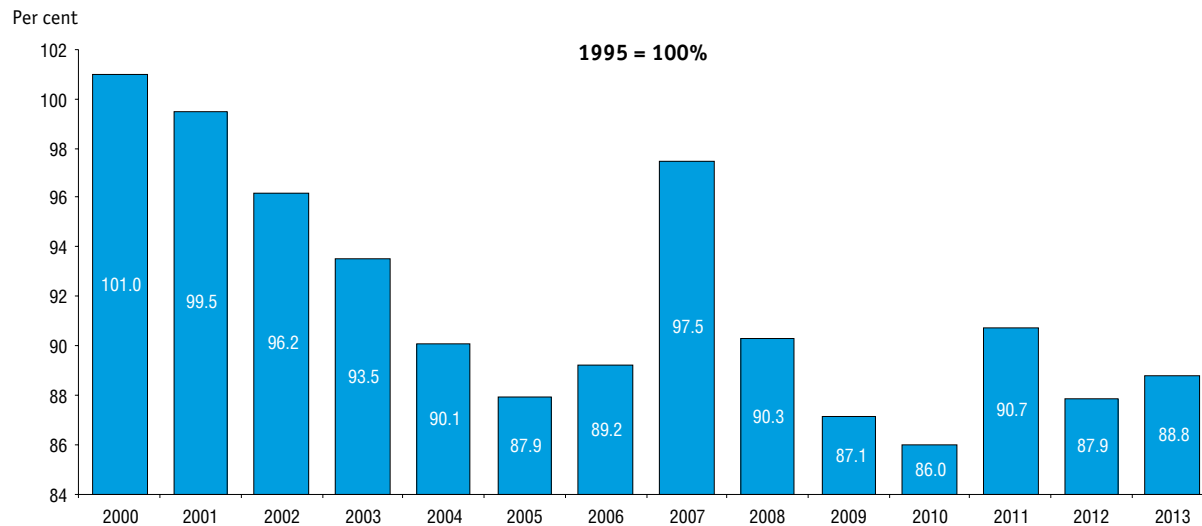
1. Institutions

1.1. R&D INSTITUTIONS BY TYPE

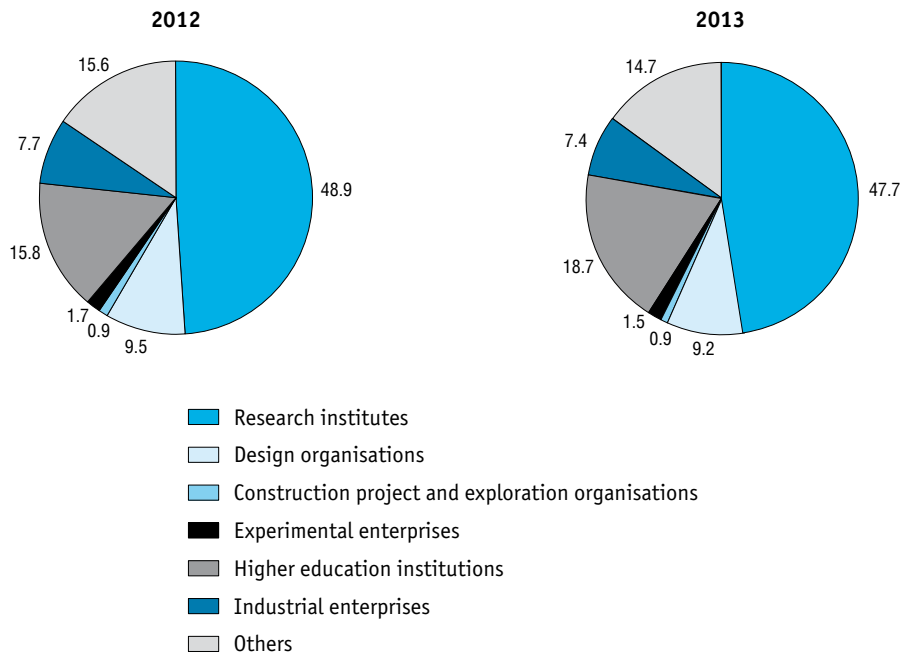
	1995	2000	2003	2004	2005*	2006*	2007*	2008*	2009*	2010*	2011*	2012*	2013*
Total	4059	4099	3797	3656	3566	3622	3957	3666	3536	3492	3682	3566	3605
Research institutes	2284	2686	2564	2464	2115	2049	2036	1926	1878	1840	1782	1744	1719
Design organisations	548	318	228	194	489	482	497	418	377	362	364	338	331
Construction project and exploration organisations	207	85	68	63	61	58	49	42	36	36	38	33	33
Experimental enterprises	23	33	28	31	30	49	60	58	57	47	49	60	53
Higher education institutions	395	390	393	402	406	417	500	503	506	517	581	562	673
Industrial enterprises	325	284	248	244	231	255	265	239	228	238	280	274	266
Others	277	303	268	258	234	312	550	480	454	452	588	555	530

* In 2005, the classification of types of R&D institutions was changed due to the abolition of the 'Russian Classifier of Economy Branches'.

1.2. TRENDS IN THE TOTAL NUMBER OF R&D INSTITUTIONS



1.3. PERCENTAGE DISTRIBUTION OF R&D INSTITUTIONS BY TYPE



1.4. R&D INSTITUTIONS BY OWNERSHIP

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	4059	4099	3797	3656	3566	3622	3957	3666	3536	3492	3682	3566	3605
Russian ownership	4034	4035	3740	3599	3513	3572	3895	3613	3483	3436	3614	3506	3542
Public ownership	2979	2938*	2760	2675	2632	2652	2821	2716	2655	2610	2670	2561	2526
Federal	2783	2755	2599	2524	2483	2508	2650	2562	2503	2467	2493	2390	2363
Regional	196	181	161	151	149	143	166	148	146	140	176	170	163
Municipal ownership	9	11	8	7	6	9	13	13	14	14	18	14	14
Ownership of voluntary associations	16	60	28	25	27	29	36	30	26	28	27	25	27
Private ownership	198	388	434	420	422	505	638	508	475	470	532	545	607
Ownership of Russian citizens permanently living abroad	...	...	...	...	...	...	...	...	...	...	1	1	1
Ownership of consumer cooperatives**	...	3	2	4	4	4	3	2	3	4	4	2	2
Joint ownership	832	635	508	468	422	373	384	344	310	304	337	298	300
Joint ownership with a part of public ownership	...	...	...	...	...	...	...	...	...	268	296	247	236
Other	...	...	...	...	...	...	...	...	...	...	41	51	64
Ownership of state corporations	...	...	...	...	...	...	...	...	...	6	25	60	65
Foreign ownership	1	6	6	6	7	6	11	13	14	16	21	16	16
Joint ownership (with both Russian and foreign participation)	24	58	51	51	46	44	51	40	39	40	47	44	47

(continued)

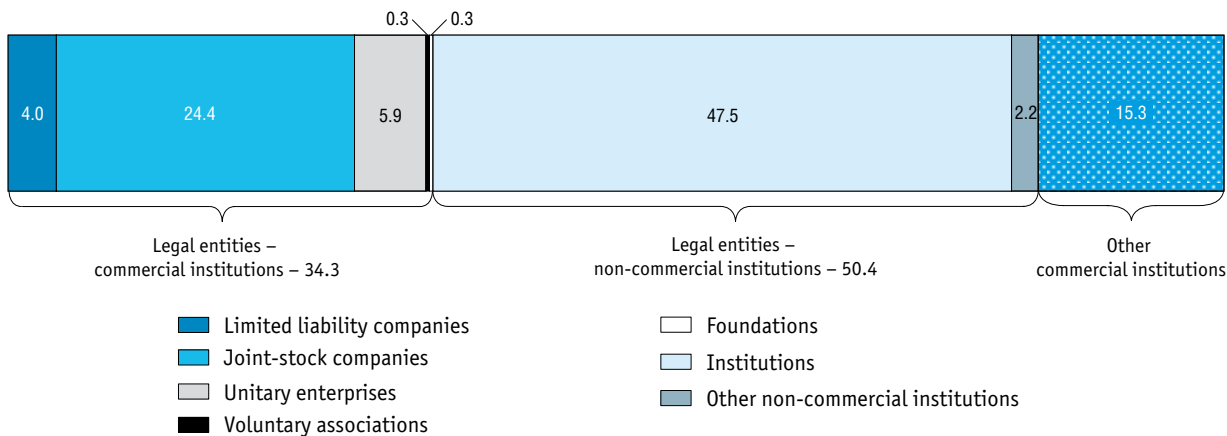
	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total, per cent	100	100	100	100	100	100	100	100	100	100	100	100	100
Russian ownership	99.4	98.4	98.5	98.4	98.5	98.6	98.4	98.6	98.5	98.4	98.2	98.3	98.3
Public ownership	73.4	71.7	72.7	73.2	73.8	73.2	71.3	74.1	75.1	74.7	72.5	71.8	70.1
Federal	68.6	67.2	68.4	69.0	69.6	69.2	67.0	69.9	70.8	70.6	67.7	67.0	65.5
Regional	4.8	4.4	4.2	4.1	4.2	3.9	4.2	4.0	4.1	4.0	4.8	4.8	4.5
Municipal ownership	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.4	0.4
Ownership of voluntary associations	0.4	1.5	0.7	0.7	0.8	0.8	0.9	0.8	0.7	0.8	0.7	0.7	0.7
Private ownership	4.9	9.5	11.4	11.5	11.8	13.9	16.1	13.9	13.4	13.5	14.4	15.3	16.8
Ownership of Russian citizens permanently living abroad	...	...	...	...	...	...	...	...	...	...	0.03	0.03	0.03
Ownership of consumer cooperatives**	...	0.07	0.05	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.06
Joint ownership	20.5	15.5	13.4	12.8	11.8	10.3	9.7	9.4	8.8	8.7	9.2	8.4	8.3
Joint ownership with a part of public ownership	...	...	...	...	...	...	...	...	...	7.7	8.0	6.9	6.5
Other	...	...	...	...	...	...	...	...	...	...	1.1	1.4	1.8
Ownership of state corporations	...	...	...	...	...	...	...	...	...	0.2	0.7	1.7	1.8
Foreign ownership	0.02	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.4	0.4
Joint ownership (with both Russian and foreign participation)	0.6	1.4	1.3	1.4	1.3	1.2	1.3	1.1	1.1	1.1	1.3	1.2	1.3

* Details may not add up to the total because of shared ownership at some institutions.

** Until 2000, registered within institutions of private and joint Russian ownership.

1.5. R&D INSTITUTIONS BY ORGANISATIONAL AND LEGAL FORM: 2013

(per cent)



1.6. R&D INSTITUTIONS BY ECONOMIC ACTIVITY

	2005	2007	2008	2009	2010	2011	2012	2013
Total	3566	3957	3666	3536	3492	3682	3566	3605
Agriculture, hunting and forestry	24	41	39	39	35	34	31	31
Fishing, aquaculture and service activities in these fields	1	1	–	1	1	–	–	–
Mining and quarrying	8	6	3	1	1	2	4	3
Manufacturing	241	304	274	268	276	317	323	314
Electricity, gas and water supply	–	1	2	1	1	1	1	1
Construction	–	1	–	–	–	–	1	1
Hotels and restaurants	–	–	–	–	–	–	1	1
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	–	3	1	–	–	2	–	–
Transport and communications	1	3	3	3	3	4	7	4
Real estate, renting and business activities	2757	2875	2629	2517	2456	2526	2389	2344
Of which:								
research and development	2628	2702	2484	2395	2331	2398	2257	2213
other business activities	117	121	103	93	95	93	88	87
Public administration and defence; compulsory social security	–	1	–	–	–	–	–	–
Education	428	544	543	541	549	620	632	732
Of which higher education	425	530	532	532	543	611	619	716
Health and social services	11	23	24	21	24	26	29	32
Other community, social and personal service activities	95	154	148	144	146	150	148	142
Recreational, cultural and sporting activities	90	146	141	137	140	143	139	135



2. R&D Personnel

2.1. R&D PERSONNEL (headcount)

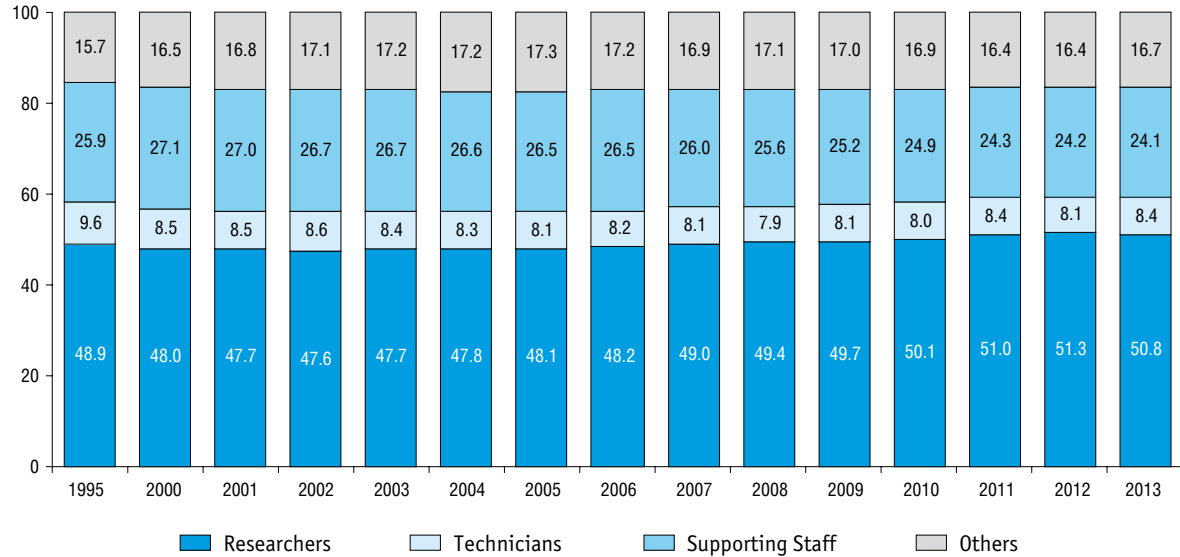
	1995	2000	2003	2004	2005*	2006*	2007*	2008*	2009*	2010*	2011*	2012*	2013*
Total	1061044	887729	858470	839338	813207	807066	801135	761252	742433	736540	735273	726318	727029
Research institutes	753253	718434	716362	700308	510523	499856	474985	454938	443702	435304	420031	430677	434243
Design organisations	129689	56488	42138	41713	184785	172521	179862	167517	163764	157146	159620	138295	137098
Construction project and exploration organisations	20870	6811	6583	6261	5443	7356	8406	7446	6738	6324	6466	6772	4907
Experimental enterprises	13640	6145	6870	4605	1232	6696	3528	1544	1588	1558	1817	2330	2383
Higher education institutions	40015	31110	31774	32105	33942	35179	40440	40003	41767	46776	53944	53699	54092
Industrial enterprises	89030	54721	43657	42192	43524	59856	56759	52042	49042	51807	52004	52071	52232
Others	14547	14020	11086	12154	33758	25602	37155	37762	35832	37625	41391	42474	42074

* In 2005, the classification of types of R&D institutions was changed due to the abolition of the "Russian Classifier of Economy Branches".

2.2. R&D PERSONNEL BY OCCUPATION (headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	1061044	887729	858470	839338	813207	807066	801135	761252	742433	736540	735273	726318	727029
Researchers	518690	425954	409775	401425	391121	388939	392849	375804	369237	368915	374746	372620	369015
Technicians	101371	75184	71729	69963	65982	66031	64569	60218	60045	59276	61562	58905	61401
Supporting staff	274925	240506	229214	223356	215555	213579	208052	194769	186995	183713	178494	175790	175365
Others	166058	146085	147752	144594	140549	138517	135665	130461	126156	124636	120471	119003	121248

2.3. PERCENTAGE DISTRIBUTION OF R&D PERSONNEL BY OCCUPATION



2.4. R&D PERSONNEL BY OWNERSHIP OF R&D INSTITUTIONS

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	Headcount												
Total	1061044	887729	858470	839338	813207	807066	801135	761252	742433	736540	735273	726318	727029
Russian ownership	1060480	866386	841901	822749	797394	792009	785560	746412	734405	726234	723642	715691	710336
Public ownership	816799	673658*	663943	646727	641310	631694	622602	595458	585675	575035	559339	536212	518460
Federal	795299	657696	652364	635449	629207	621732	610145	584117	574697	564238	547922	525200	508083
Regional	21500	15957	11579	11278	12103	9855	11979	10861	10503	10450	11355	10947	10377
Municipal ownership	738	725	147	85	77	189	207	186	180	170	229	142	208
Ownership of voluntary associations	1036	1207	272	208	231	304	376	460	474	512	531	600	740
Private ownership	26238	53408	64868	62862	58480	73478	79876	73509	69167	66906	74795	73260	77830
Ownership of Russian citizens permanently living abroad	...	...	...	...	...	...	...	...	...	...	23	25	...***
Ownership of consumer cooperatives**	...	16	11	27	27	24	10	10	253	268	308	2	...***
Joint ownership	215669	137372	112660	112840	97269	86320	82489	76789	78656	78464	78756	82862	87532
Joint ownership with a part of public ownership	...	...	...	...	...	...	...	...	...	66574	65362	59406	67452
Other	...	...	...	...	...	...	...	...	...	...	13394	23456	20080
Ownership of state corporations	...	...	...	...	...	...	...	...	...	4879	9661	22588	25560
Foreign ownership	-	146	468	337	1145	624	835	699	553	1130	1358	1233	1955
Joint ownership (with both Russian and foreign participation)	564	21197	16101	16252	14668	14433	14740	14141	7475	9176	10273	9394	14738

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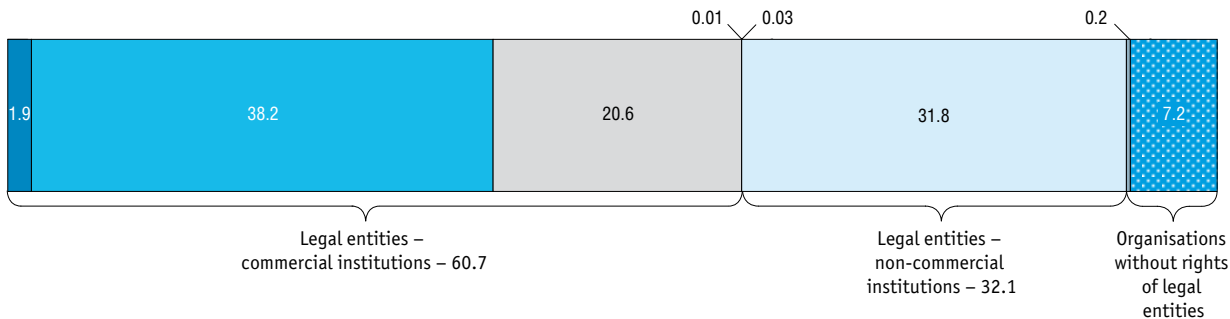
	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	Per cent												
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
Russian ownership	99.9	97.6	98.1	98.0	98.1	98.1	98.1	98.1	98.9	98.6	98.4	98.5	97.7
Public ownership	77.0	75.9	77.3	77.1	78.9	78.3	77.7	78.2	78.9	78.1	76.1	73.8	71.3
Federal	75.0	74.1	76.0	75.7	77.4	77.0	76.2	76.7	77.4	76.6	74.5	72.3	69.9
Regional	2.0	1.8	1.3	1.3	1.49	1.2	1.5	1.4	1.4	1.4	1.5	1.5	1.4
Municipal ownership	0.07	0.08	0.02	0.01	0.01	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.03
Ownership of voluntary associations	0.1	0.1	0.03	0.02	0.028	0.04	0.05	0.1	0.1	0.1	0.1	0.1	0.1
Private ownership	2.5	6.0	7.6	7.5	7.19	9.1	10.0	9.7	9.3	9.1	10.2	10.1	10.7
Ownership of Russian citizens permanently living abroad	...	...	...	...	...	...	...	...	...	...	0.003	0.003	...***
Ownership of consumer cooperatives**	....	0.002	0.001	0.003	0.003	0.003	0.001	0.001	0.03	0.04	0.04	0.0	...***
Joint ownership	20.3	15.5	13.1	13.4	11.96	10.7	10.3	10.1	10.6	10.7	10.7	11.4	12.0
Joint ownership with a part of public ownership	...	...	...	...	...	...	...	...	...	9.0	8.9	8.2	9.3
Other	...	...	...	...	...	...	...	...	...	...	1.8	3.2	2.8
Ownership of state corporations	...	...	...	...	...	...	...	...	...	0.7	1.3	3.1	3.5
Foreign ownership	-	0.02	0.05	0.04	0.14	0.08	0.1	0.1	0.1	0.2	0.2	0.2	0.3
Joint ownership (with both Russian and foreign participation)	0.05	2.4	1.9	1.9	1.8	1.8	1.8	1.9	1.0	1.2	1.4	1.3	2.0

* Details may not add up to the total because of shared ownership at some institutions.

** Until 2000, registered within institutions of private and joint Russian ownership.

*** The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

2.5. PERCENTAGE DISTRIBUTION OF R&D PERSONNEL BY ORGANISATIONAL AND LEGAL FORM OF INSTITUTIONS: 2013



- Limited liability companies
- Joint-stock companies
- Unitary enterprises
- Voluntary associations

- Foundations
- Institutions
- Other non-commercial institutions

2.6. R&D PERSONNEL BY ECONOMIC ACTIVITY

(headcount)

	R&D personnel			Researchers		
	2011	2012	2013	2011	2012	2013
Total	735273	726318	727029	374791	372620	369015
Agriculture, hunting and forestry	940	1018	1141	339	348	357
Fishing, aquaculture and service activities in these fields	–	–	–	–	–	–
Mining and quarrying	64	29	19	62	28	16
Manufacturing	36605	42708	43621	20892	24885	25031
Electricity, gas and water supply	20	–	–	9	–	–
Construction	–	105	...*	–	51	...*
Hotels and restaurants	–	715	...*	–	571	...*
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	7	–	–	7	–	–
Transport and communications	410	1191	1006	253	689	599
Real estate, renting and business activities	633901	614147	615419	309006	299697	297393
Of which:						
research and development	623807	601598	603911	302371	291425	290055
other business activities	7500	8611	7808	4913	5785	5082
Public administration and defence; compulsory social security	–	–	–	–	–	–
Education	54386	56823	56142	39971	42113	40858
Of which higher education	54266	56642	55816	39861	41951	40584
Health and social services	2781	2900	3260	1549	1639	1764
Other community, social and personal service activities	6159	6682	5581	2703	2599	2345
Recreational, cultural and sporting activities	6142	6667	5569	2691	2586	2333

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

2.7. R&D PERSONNEL BY EDUCATIONAL ATTAINMENT
(headcount)

	Total	Higher education	Secondary vocational education	Other
1995	1061044	626979	168999	265066
2000	887729	530649	144503	212577
2001	885568	529905	147604	208059
2002	870878	525145	146052	199681
2003	858470	521137	144197	193136
2004	839338	511778	141682	185878
2005	813207	501718	134222	177267
2006	807066	502657	133454	170955
2007	801135	513099	129360	158676
2008	761252	495255	121508	144489
2009	742433	489076	115042	138315
2010	736540	493852	109158	133530
2011	735273	506330	103873	125070
2012	726318	508057	99503	118758
2013	727029	512017	97867	117145

2.8. RESEARCHERS BY GENDER AND AGE GROUP

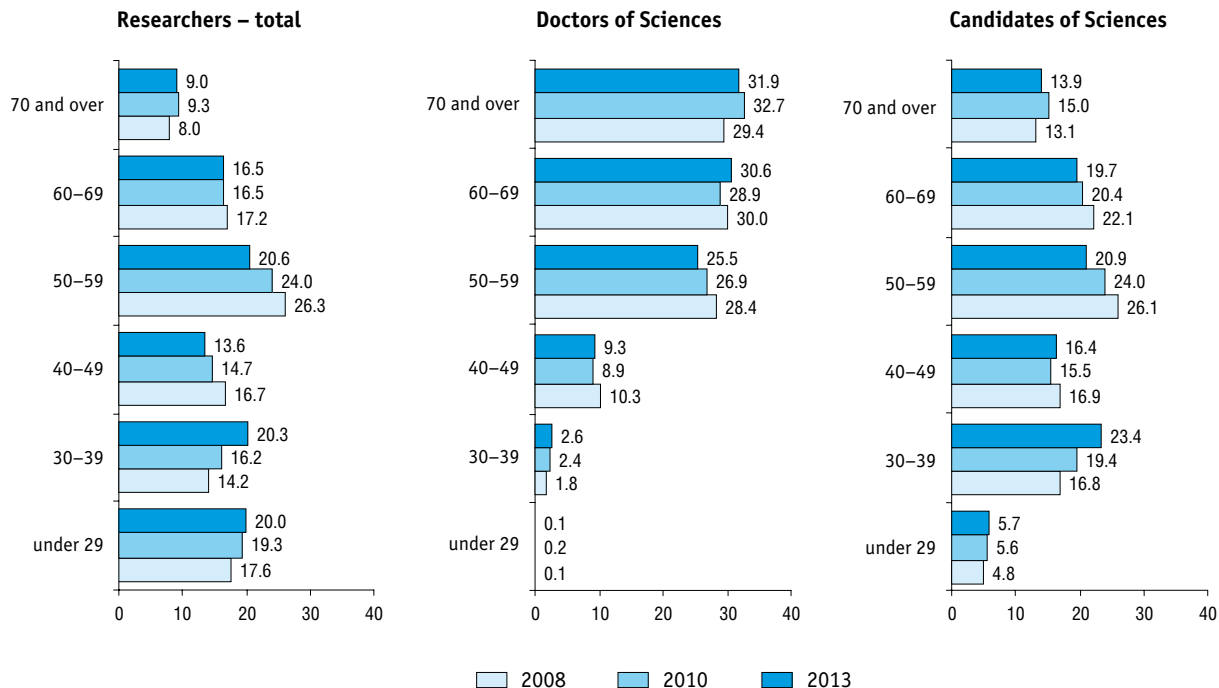
(headcount)

	2011			2012			2013		
	Researchers	Of whom		Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Total	374746	27675	81818	372620	27784	81546	369015	27485	80763
Age, years:									
under 29	75612	28	4894	75498	26	4584	73869	28	4578
30–39	64970	719	17503	68415	692	18052	74961	723	18920
40–49	52168	2514	12734	50122	2444	12640	50149	2556	13274
50–54	41291	3129	8734	39622	3018	8506	36620	2970	8101
55–59	43958	4141	9671	41990	4097	9325	39375	4030	8794
60–69	61173	7935	16004	61863	8337	16464	60952	8416	15892
70 and over	35574	9209	12278	35110	9170	11975	33089	8762	11204
Male	219456	20968	48811	218926	20843	48211	218151	20663	47616
Age, years:									
under 29	46893	21	2999	47021	21	2765	45974	27	2728
30–39	37374	483	9133	39858	483	9461	44205	484	10096
40–49	26426	1666	6516	25425	1582	6306	26250	1707	6715
50–54	21676	2183	5105	20681	2083	4904	19025	2056	4568
55–59	24235	2959	6048	23135	2867	5739	21902	2874	5413
60–69	37305	6308	10644	37714	6490	10923	37290	6500	10574
70 and over	25547	7348	8366	25092	7317	8113	23505	7015	7522

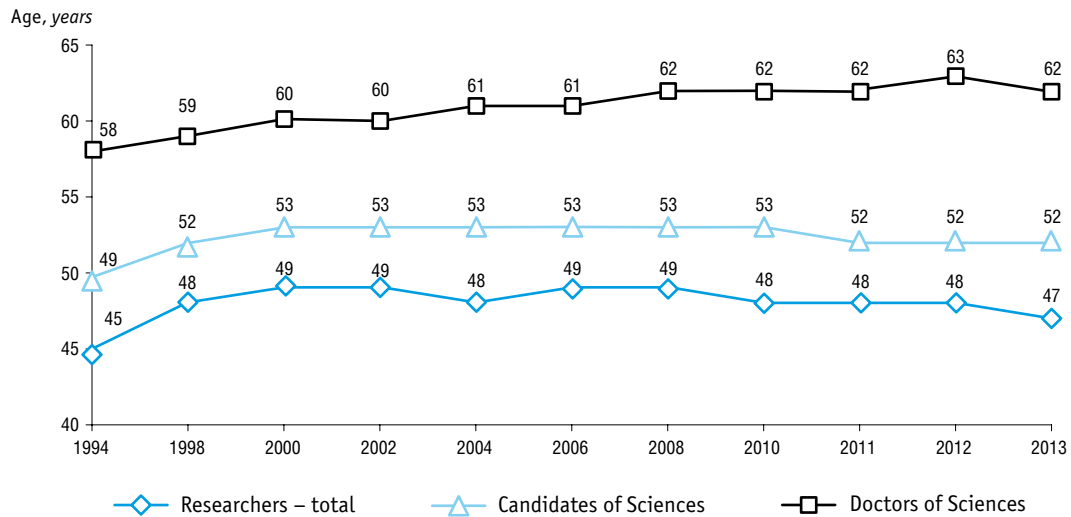
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	2011			2012			2013		
	Researchers	Of whom		Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Female	155290	6707	33007	153694	6941	33335	150864	6822	33147
<i>Age, years:</i>									
under 29	28719	7	1895	28477	5	1819	27895	1	1850
30–39	27596	236	8370	28557	209	8591	30756	239	8824
40–49	25742	848	6218	24697	862	6334	23899	849	6559
50–54	19615	946	3629	18941	935	3602	17595	914	3533
55–59	19723	1182	3623	18855	1230	3586	17473	1156	3381
60–69	23868	1627	5360	24149	1847	5541	23662	1916	5318
70 and over	10027	1861	3912	10018	1853	3862	9584	1747	3682

2.9. PERCENTAGE DISTRIBUTION OF RESEARCHERS BY AGE GROUP



2.10. AVERAGE AGE OF RESEARCHERS

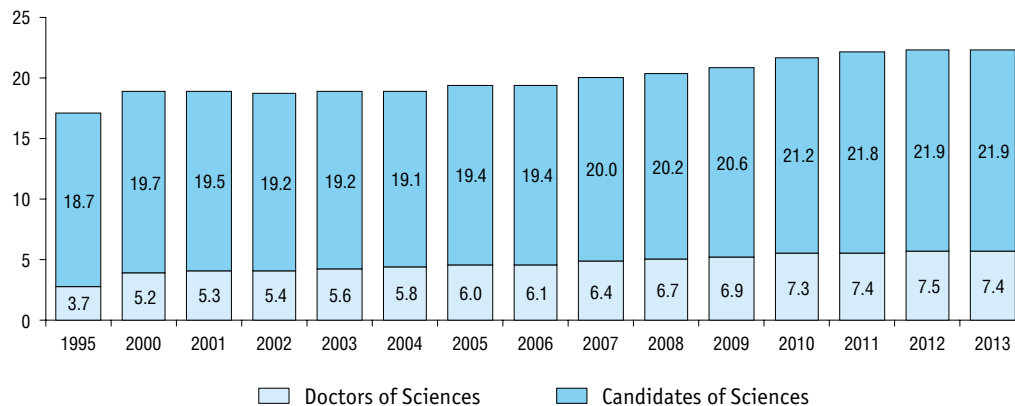


2.11. RESEARCHERS WITH SCIENTIFIC DEGREES

(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Researchers with scientific degrees	116465	105911	101806	99910	99428	99507	103725	101049	101275	105114	109493	109330	108248
Doctors of Sciences	19330	21949	22936	23102	23410	23880	25213	25140	25295	26789	27675	27784	27485
Candidates of Sciences	97135	83962	78870	76808	76018	75627	78512	75909	75980	78325	81818	81546	80763

2.12. RESEARCHERS WITH SCIENTIFIC DEGREES AS A PERCENTAGE OF THE TOTAL NUMBER OF RESEARCHERS

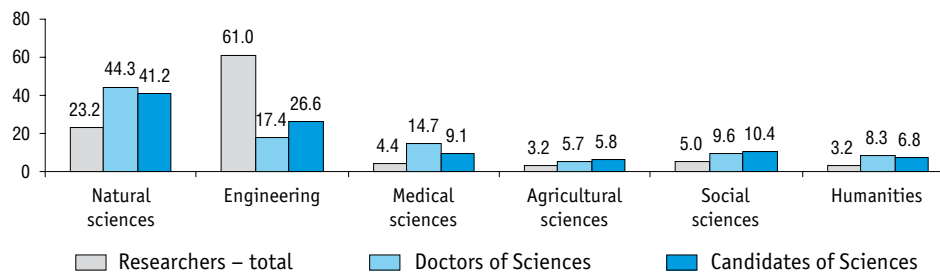


2.13. RESEARCHERS BY FIELD OF SCIENCE AND TECHNOLOGY

(headcount)

	2005			2010			2011			2012			2013		
	Research- ers	Of whom		Research- ers	Of whom		Research- ers	Of whom		Research- ers	Of whom		Research- ers	Of whom	
		Doctors of Sci- ences	Candi- dates of Sciences		Doctors of Sci- ences	Candi- dates of Sciences		Doctors of Sci- ences	Candi- dates of Sciences		Doctors of Sci- ences	Candi- dates of Sciences		Doctors of Sci- ences	Candi- dates of Sciences
Total	391121	23410	76018	368915	26789	78325	374746	27675	81818	372620	27784	81546	369015	27485	80763
Natural sciences	91570	10738	32969	89375	12251	33664	89733	12345	34289	88704	12397	34068	85588	12163	33266
Engineering	249358	4495	23677	224641	4620	21260	226492	4737	21740	225118	4757	21325	225082	4777	21514
Medical sciences	15672	3715	6791	16516	4045	7475	16793	4158	7536	16595	4001	7200	16352	4053	7363
Agricultural sciences	13724	1356	4922	12734	1542	5004	12933	1663	5248	12288	1688	5038	11869	1565	4707
Social sciences	12497	1336	4158	14347	2057	5861	16967	2410	7573	17284	2501	7941	18384	2638	8435
Humanities	8300	1770	3501	11302	2274	5061	11828	2362	5432	12631	2440	5974	11740	2289	5478

2.14. PERCENTAGE DISTRIBUTION OF RESEARCHERS BY FIELD OF SCIENCE AND TECHNOLOGY: 2013

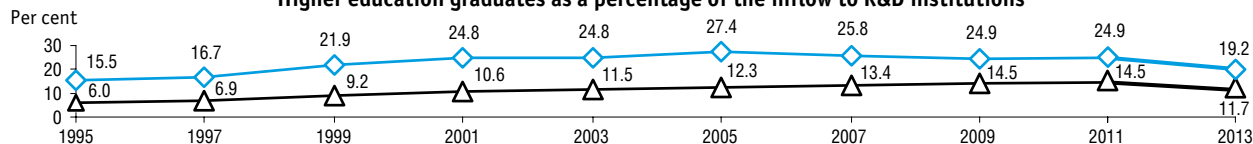


2.15. FLOWS OF R&D PERSONNEL (headcount)

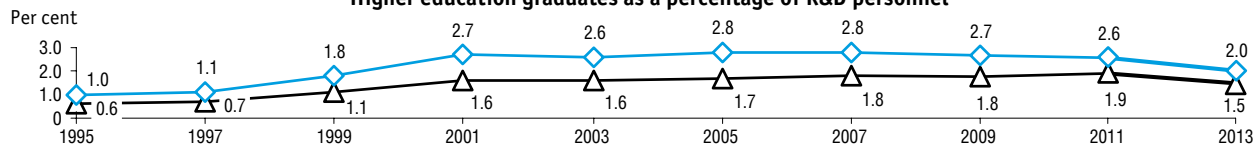
	Number at the beginning of the reference year	Inflow				Outflow				Number at the end of the reference year
		Total	Of whom			Total	Of which			
			graduates from higher education institutions	from other research institutes	others		voluntary turnover	due to staff reduction	for other reasons	
1995	1179294	108335	6498	23402	78435	226585	141776	29747	55062	1061044
2001	890718	132757	14122	21549	97086	137932	93587	3542	40803	885568
2003	867456	120298	13777	20702	85819	129284	89513	5917	33854	858470
2005	826007	109973	13495	15618	80860	122773	81623	6598	34552	813207
2007	814329	105758	14150	19778	71830	118952	80536	4617	33799	801135
2009	745978	93526	13235	13529	66762	97071	58295	5776	33000	742433
2011	741183	94939	13725	11881	69333	100849	62848	2973	35028	735273
2013	725591	94550	11075	13210	70265	93112	59214	2015	31883	727029

2.16. INFLOW OF HIGHER EDUCATION GRADUATES TO R&D INSTITUTIONS

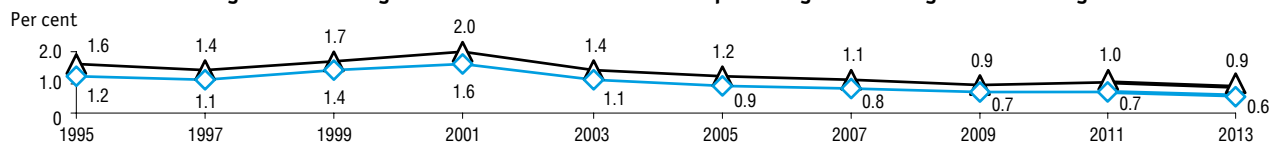
Higher education graduates as a percentage of the inflow to R&D institutions



Higher education graduates as a percentage of R&D personnel*



Inflow of higher education graduates to R&D institutions as a percentage of total higher education graduates**



—△— R&D personnel – total —◇— Researchers

* The ratio of the higher education graduates admitted during the year to the number of employees at the end of the year.

** Including private higher education institutions.

2.17. R&D PERSONNEL TURNOVER

	1995	2001	2003	2005	2007	2009	2011	2013
R&D personnel turnover ratio, by inflow*	0.099	0.152	0.142	0.138	0.135	0.131	0.135	0.138
R&D personnel turnover ratio, by outflow**	0.207	0.158	0.153	0.154	0.152	0.136	0.144	0.136
Workforce replacement ratio***	0.478	0.962	0.930	0.896	0.889	0.963	0.941	1.015

* The ratio of the R&D personnel admitted during the year to the average number of employees at the organisation.

** The ratio of the R&D personnel discharged during the year to the average number of employees at the organisation.

*** The ratio of persons admitted during the year to the number of persons discharged during the same period at the organisation.

Postgraduate education

2.18. MAIN INDICATORS OF POSTGRADUATE COURSES' ACTIVITIES

	Number of institutions (at the end of the year)	Enrolment, <i>headcount</i> (at the end of the year)	Entrants, <i>headcount</i>	Graduates, <i>headcount</i>	Of whom with defended dissertation, <i>headcount</i>
Total					
1995	1334	62317	24025	11369	2609
2000	1362	117714	43100	24828	7503
2001	1393	128420	45241	25696	6172
2002	1416	136242	46935	28101	7411
2003	1441	140741	47803	30799	8378
2004	1452	142662	47687	32595	10256
2005	1473	142899	46896	33561	10650
2006	1493	146111	50462	35530	11893
2007	1490	147719	51633	35747	10970
2008	1529	147674	49638	33670	8831
2009	1547	154470	55540	34235	10770
2010	1568	157437	54558	33763	9611
2011	1570	156279	50582	33082	9635
2012	1575	146754	45556	35162	9195
2013	1557	132002	38971	34733	8979

(continued)

	Number of institutions <i>(at the end of the year)</i>	Enrolment, <i>headcount</i> <i>(at the end of the year)</i>	Entrants, <i>headcount</i>	Graduates, <i>headcount</i>	Of whom with defended dissertation, <i>headcount</i>
Research institutes					
1995	828	11488	4024	2814	596
2000	797	17502	6075	3813	873
2001	806	17784	6092	3859	685
2002	818	18323	6026	4205	851
2003	827	18959	6335	4336	841
2004	831	19654	6620	4656	1002
2005	833	19986	6577	4806	1009
2006	820	19542	6330	4865	852
2007	799	18346	6072	4847	895
2008	811	17397	5381	4781	715
2009	800	16549	5549	4359	734
2010	809	16936	5655	4335	729
2011	805	15865	4784	4028	693
2012	820	14823	4555	4101	655
2013	818	13593	4166	3943	674

(continued)

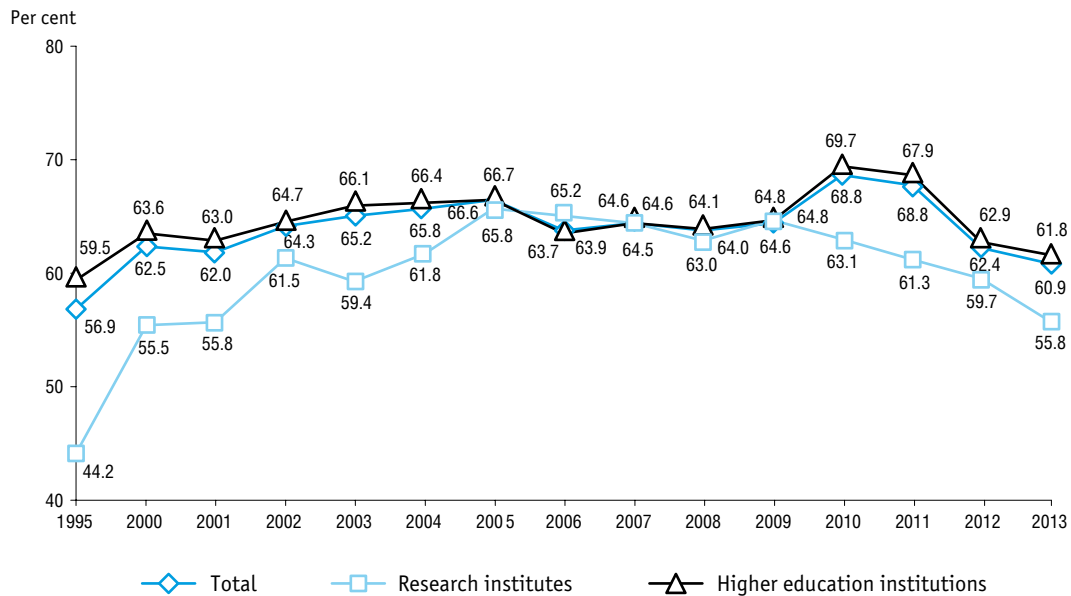
	Number of institutions (at the end of the year)	Enrolment, <i>headcount</i> (at the end of the year)	Entrants, <i>headcount</i>	Graduates, <i>headcount</i>	Of whom with defened dissertation, <i>headcount</i>
Higher education institutions					
1995	506	50829	20001	8555	2013
2000	565	100212	37025	21015	6630
2001	587	110636	39149	21837	5487
2002	598	117919	40909	23896	6560
2003	614	121782	41468	26463	7537
2004	621	123008	41067	27939	9254
2005	640	122913	40319	28755	9641
2006	673	126569	44132	30665	11041
2007	691	129373	45561	30900	10075
2008	718	130277	44257	28889	8116
2009	730	137068	49736	29678	9996
2010	748	139908	48748	29268	8854
2011	750	139542	45561	28847	8869
2012	740	131226	40802	30885	8480
2013	724	117790	34643	30639	8257
Institutions for non-formal education/training					
2009	17	853	255	198	40
2010	11	593	155	160	28
2011	15	872	237	207	73
2012	15	705	199	176	60
2013	15	619	162	151	48

2.19. ADMISSION OF HIGHER EDUCATION GRADUATES OF THE REFERENCE YEAR TO POSTGRADUATE COURSES BY ATTENDANCE STATUS

(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	13673	26926	31168	31371	31211	32232	33341	31756	35855	37528	34326	28411	23736
Full-timers	11215	22076	24956	25621	25535	26022	27210	24827	28487	28507	24754	21528	19432
Part-timers	2458	4850	6212	5750	5676	6210	6131	6929	7368	9021	9572	6883	4304
Research institutes	1777	3370	3763	4090	4328	4124	3918	3391	3595	3569	2933	2718	2326
Full-timers	1340	2677	2987	3169	3439	3262	3167	2723	2896	2877	2379	2226	1852
Part-timers	437	693	776	921	889	862	751	668	699	692	554	492	474
Higher education institutions	11896	23556	27405	27281	26883	28108	29423	28365	32223	33955	31356	25671	21398
Full-timers	9875	19399	21969	22452	22096	22760	24043	22104	25564	25628	22347	19298	17578
Part-timers	2021	4157	5436	4829	4787	5348	5380	6261	6659	8327	9009	6373	3820
Institutions for non-formal education/ training	-	-	-	-	-	-	-	-	37	4	37	22	12
Full-timers	-	-	-	-	-	-	-	-	27	2	28	4	2
Part-timers	-	-	-	-	-	-	-	-	10	2	9	18	10

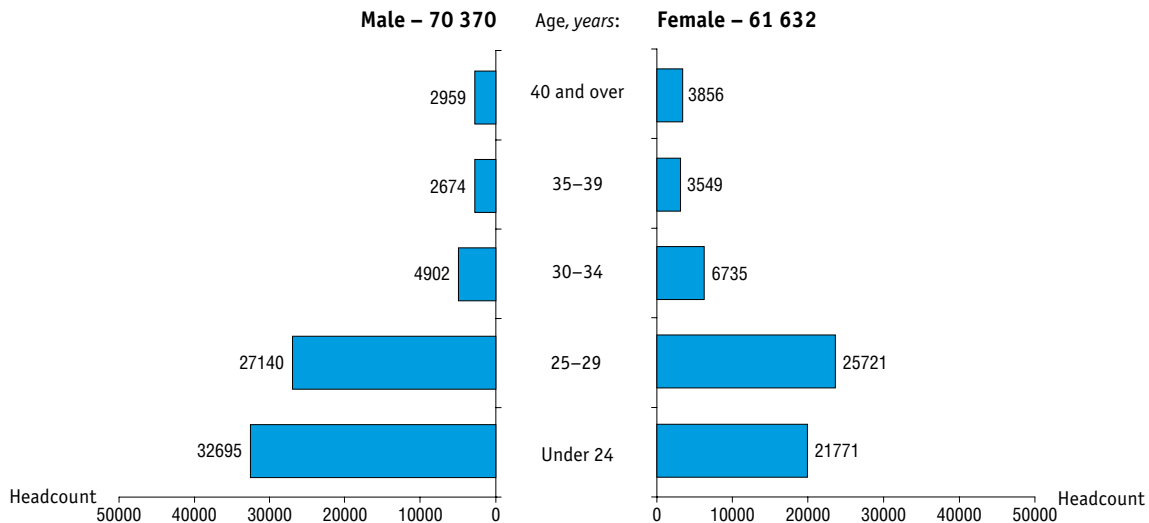
2.20. HIGHER EDUCATION GRADUATES OF THE REFERENCE YEAR AS A PERCENTAGE OF POSTGRADUATE COURSES' ADMISSION TOTAL*



* Data on admission to institutions for non-formal education/training: 2009 – 14.5%, 2010 – 2.6%, 2011 – 15.6%, 2012 – 11.1%, 2013 – 7.4%.

2.21. POSTGRADUATE COURSES' STUDENTS BY GENDER AND AGE GROUP: 2013

(at the end of the year)



2.22. POSTGRADUATE COURSES' STUDENTS BY FIELD OF SCIENCE AND TECHNOLOGY

(headcount)

	Enrolment <i>(at the end of the year)</i>		Entrants		Graduates		Of whom with defened dissertations	
	2012	2013	2012	2013	2012	2013	2012	2013
Total	146754	132002	45556	38971	35162	34733	9195	8979
Physics and Mathematics	7974	7361	2686	2328	2106	2069	472	481
Chemistry	3202	2963	973	919	935	919	259	315
Biology	6726	6334	2088	1969	1763	1740	442	458
Engineering*	39230	35343	12977	10096	8491	8738	1945	2129
Agriculture**	4858	4545	1476	1416	1188	1212	386	443
History	4240	3856	1250	1180	1074	1072	263	233
Economics	22932	19159	6695	5674	5800	5479	1690	1490
Philosophy	2758	2452	828	748	719	675	179	147
Philology	6323	5763	1871	1653	1516	1556	515	491
Law	10220	9147	3009	2771	2309	2270	457	371
Pedagogics	8959	7805	2682	2142	2202	2095	647	487
Medicine***	11634	11388	3484	3292	2671	2883	1009	1161
Arts	2134	1922	588	615	569	558	60	44
Psychology	3515	3130	1087	897	854	718	193	128
Sociology	2595	2270	780	694	634	571	162	143
Politics	2036	1894	669	625	456	458	101	118
Earth and related environmental sciences****	5699	5056	1835	1424	1422	1299	307	258
Others	1719	1614	578	528	453	421	108	82

* Including architecture.

** Including veterinary.

*** Including pharmacy.

**** Including geology, mineralogy and geography.

2.23. MAIN INDICATORS OF DOCTORAL COURSES' ACTIVITIES

	Institutions <i>(at the end of the year)</i>	Enrolment, <i>headcount</i> <i>(at the end of the year)</i>	Entrants, <i>headcount</i>	Graduates, <i>headcount</i>	Of whom with defended dissertations, <i>headcount</i>
	Total				
1995	384	2190	904	464	137
1998	452	3684	1473	821	312
1999	476	3993	1466	1033	356
2000	492	4213	1637	1251	486
2001	510	4462	1630	1257	397
2002	531	4546	1579	1267	411
2003	543	4567	1611	1385	414
2004	533	4466	1567	1451	505
2005	535	4282	1457	1417	516
2006	548	4189	1499	1383	450
2007	579	4109	1520	1320	429
2008	593	4242	1517	1216	297
2009	598	4294	1569	1302	435
2010	602	4418	1650	1259	336
2011	608	4562	1696	1321	382
2012	597	4554	1632	1371	394
2013	585	4572	1582	1356	323

(continued)

	Institutions <i>(at the end of the year)</i>	Enrolment, <i>headcount</i> <i>(at the end of the year)</i>	Entrants, <i>headcount</i>	Graduates, <i>headcount</i>	Of whom with defunded dissertations, <i>headcount</i>
Research institutes					
1995	167	483	197	128	41
1998	170	446	161	159	55
1999	173	447	182	146	54
2000	178	505	192	151	63
2001	181	485	183	138	38
2002	189	517	194	140	35
2003	195	515	184	154	47
2004	179	481	156	155	52
2005	173	445	147	148	48
2006	178	426	142	139	35
2007	201	358	118	116	33
2008	205	336	111	123	23
2009	204	327	114	107	23
2010	192	299	100	95	20
2011	192	303	106	100	17
2012	183	254	87	99	16
2013	184	262	110	73	9

(continued)

	Institutions (at the end of the year)	Enrolment, headcount (at the end of the year)	Entrants, headcount	Graduates, headcount	Of whom with defended dissertations, headcount
Higher education institutions					
1995	217	1707	707	336	96
1998	282	3238	1312	662	257
1999	303	3546	1284	887	302
2000	314	3708	1445	1100	423
2001	329	3977	1447	1119	359
2002	342	4029	1385	1127	376
2003	348	4052	1427	1231	367
2004	354	3985	1411	1296	453
2005	362	3837	1310	1269	468
2006	370	3763	1357	1244	415
2007	378	3751	1402	1204	396
2008	388	3906	1406	1093	274
2009	391	3962	1454	1193	412
2010	407	4116	1548	1162	316
2011	412	4256	1589	1220	365
2012	410	4296	1543	1271	378
2013	398	4307	1471	1281	314
Institutions for non-formal education/training					
2009	3	5	1	2	–
2010	3	3	2	2	–
2011	4	3	1	1	–
2012	4	4	2	1	–
2013	3	3	1	2	–

2.24. DOCTORAL COURSES' STUDENTS BY GENDER AND AGE GROUP: 2013

(at the end of the year)

2.25. DOCTORAL COURSES' STUDENTS BY FIELD OF SCIENCE AND TECHNOLOGY (headcount)

	Enrolment (at the end of the year)		Entrants		Graduates		Of whom with defended dissertations	
	2012	2013	2012	2013	2012	2013	2012	2013
Total	4554	4572	1632	1582	1371	1356	394	323
Physics and mathematics	318	322	118	115	119	102	30	25
Chemistry	137	137	41	50	39	49	8	11
Biology	156	135	45	42	57	48	5	4
Engineering*	1262	1268	464	430	364	364	112	92
Agriculture**	106	115	34	43	35	31	16	6
History	221	222	79	71	64	63	15	10
Economics	512	531	186	215	169	160	65	51
Philosophy	162	163	52	51	44	48	18	11
Philology	321	307	108	94	104	94	22	23
Law	133	116	50	32	30	43	3	11
Pedagogics	445	433	168	148	129	128	37	28
Medicine***	274	265	90	84	85	88	24	22
Arts	30	45	16	21	4	9	1	–
Psychology	98	97	29	35	25	28	6	4
Sociology	114	111	36	38	28	32	8	13
Politics	63	71	35	25	10	16	4	4
Earth and related environmental sciences****	123	143	53	54	39	35	9	4
Others	79	91	28	34	26	18	11	4

* Including architecture.

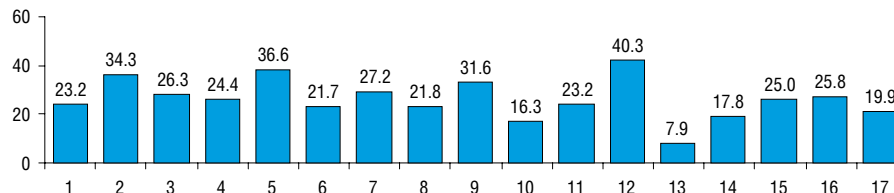
** Including veterinary.

*** Including pharmacy.

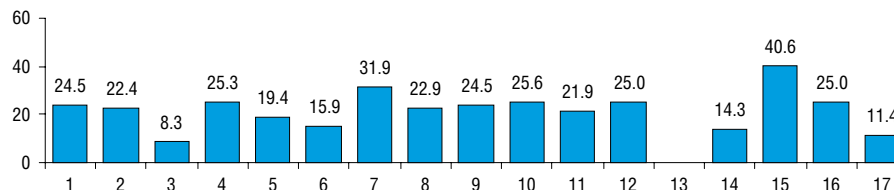
**** Including geology, mineralogy and geography.

2.26. GRADUATES WHO DEFENDED DISSERTATIONS DURING THE TRAINING TERM AS A PERCENTAGE OF ALL GRADUATES FROM POSTGRADUATE AND DOCTORAL COURSES BY FIELD OF SCIENCE AND TECHNOLOGY: 2013

Postgraduate courses



Doctoral courses



1 – Physics and Mathematics
 2 – Chemistry
 3 – Biology
 4 – Engineering*
 5 – Agriculture**
 6 – History

7 – Economics
 8 – Philosophy
 9 – Philology
 10 – Law
 11 – Pedagogics
 12 – Medicine***

13 – Arts
 14 – Psychology
 15 – Sociology
 16 – Politics
 17 – Earth and related
 environmental sciences****

* Including architecture.

** Including veterinary.

*** Including pharmacy.

**** Including geology, mineralogy and geography.



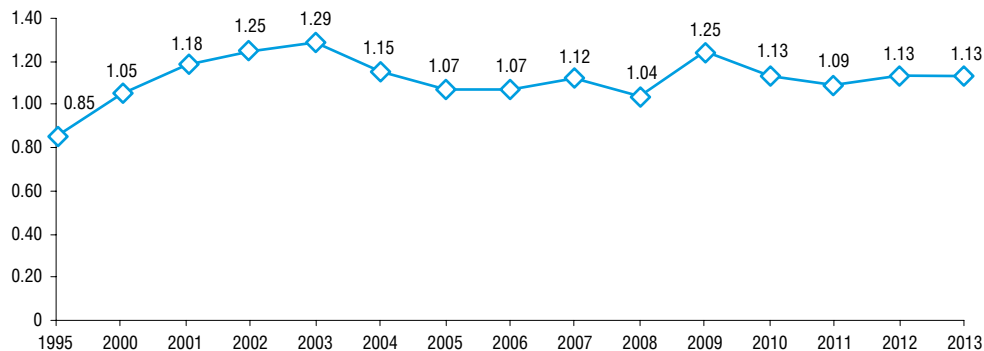
3. R&D Funding

3.1. GROSS DOMESTIC EXPENDITURE ON R&D

(thousand roubles, before 1998 – million roubles)

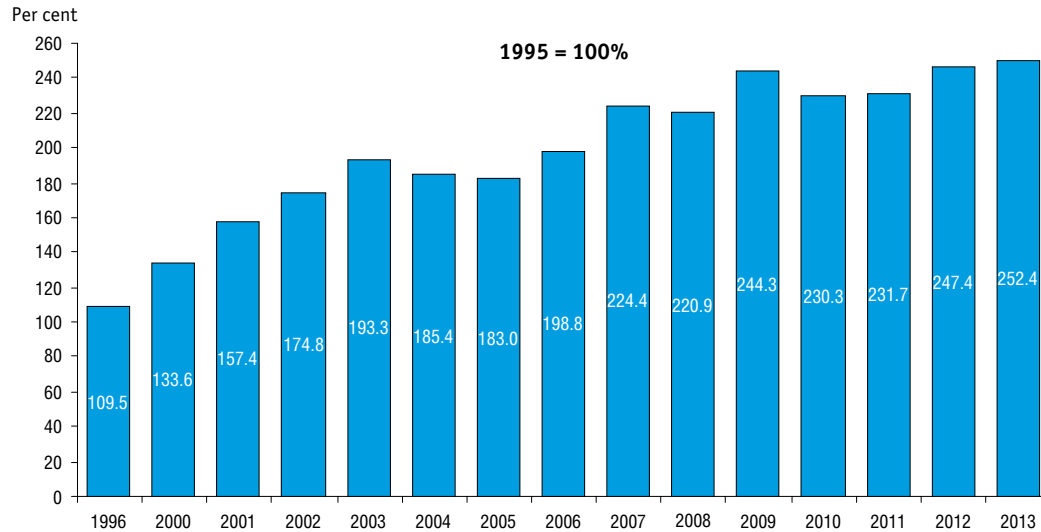
	1995	2000	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Gross domestic expenditure on R&D:												
at current prices	12149458.6	76697100.5	196039870.2	230785150.3	288805211.5	371080327.1	431073185.2	485834338.2	523377233.9	610426680.6	699869784.8	749797638.8
at constant 1989 prices	2485.4	3321.2	4608.4	4547.5	4939.9	5577.5	5490.8	6067.0	5723.2	5759.3	6142.5	6214.1

**Gross domestic expenditure on R&D
as a percentage of gross domestic product**

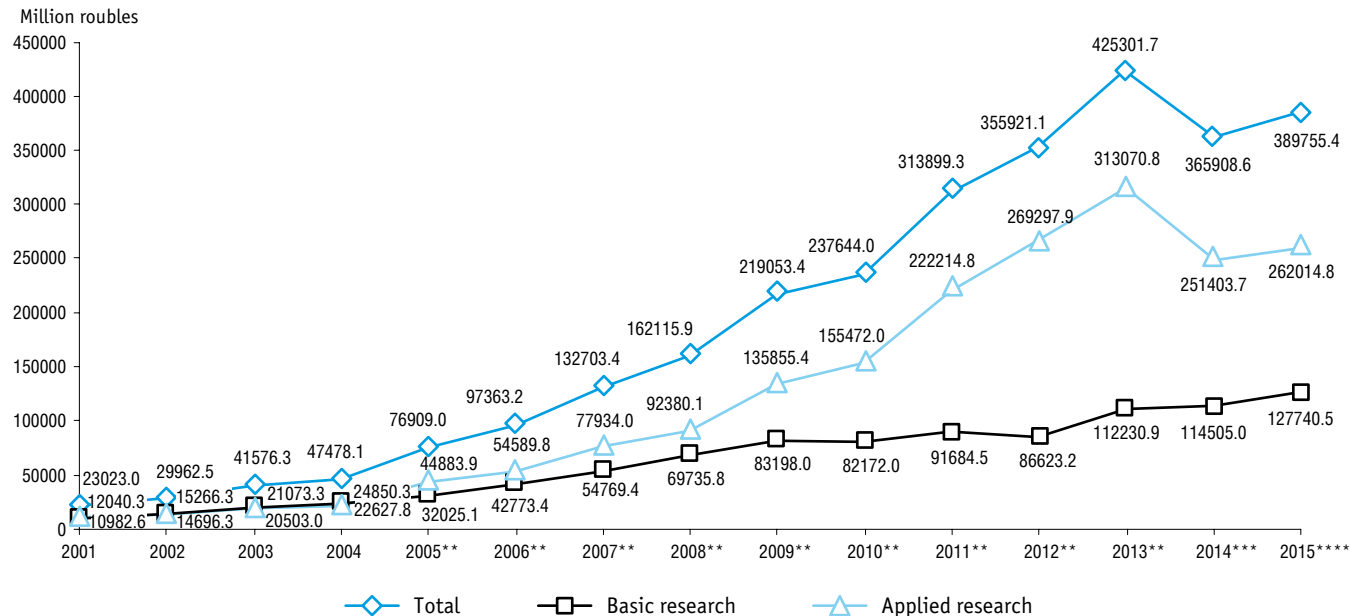


3.2. TRENDS IN GROSS DOMESTIC EXPENDITURE ON R&D

(at constant 1989 prices)



3.3. FEDERAL BUDGET APPROPRIATIONS ON CIVIL S&T AT CURRENT PRICES*



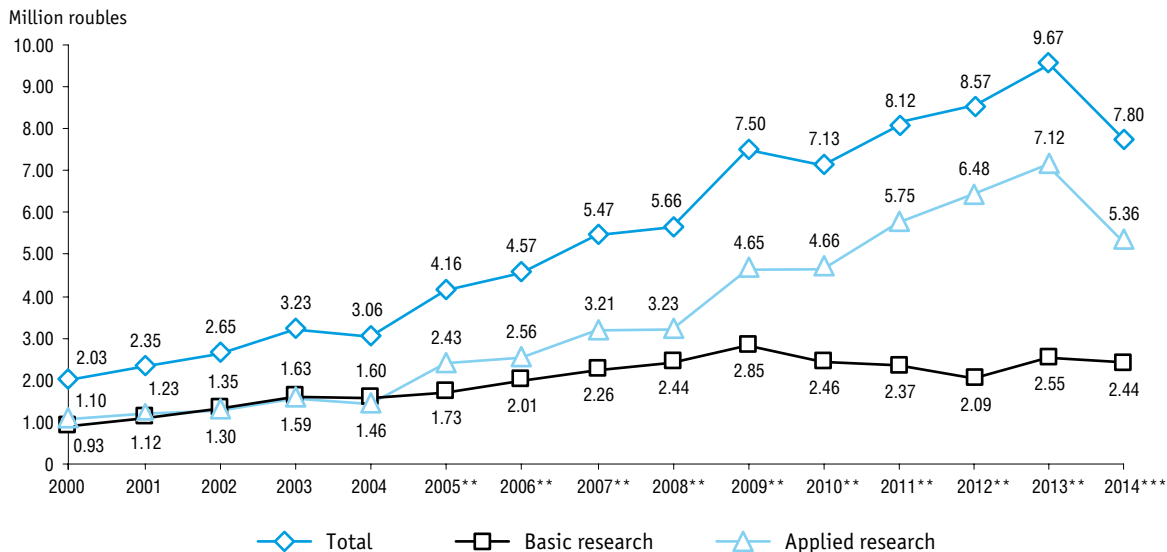
* 2000–2004: appropriations in Section 06 'Basic Research and Promotion of Science and Technology Progress' of the federal budget and its subsections.

** Source for 2005–2013: reports on the implementation of the consolidated budget and budgets of state non-budgetary funds (data is provided by the Federal Treasury).

*** According to the Federal law 'On the Federal budget for 2014 and the planning period of 2015 and 2016' (as amended).

**** According to the Federal law 'On the Federal budget for 2015 and the planning period of 2016 and 2017'.

3.4. FEDERAL BUDGET APPROPRIATIONS ON CIVIL S&T AT CURRENT 1991 PRICES*

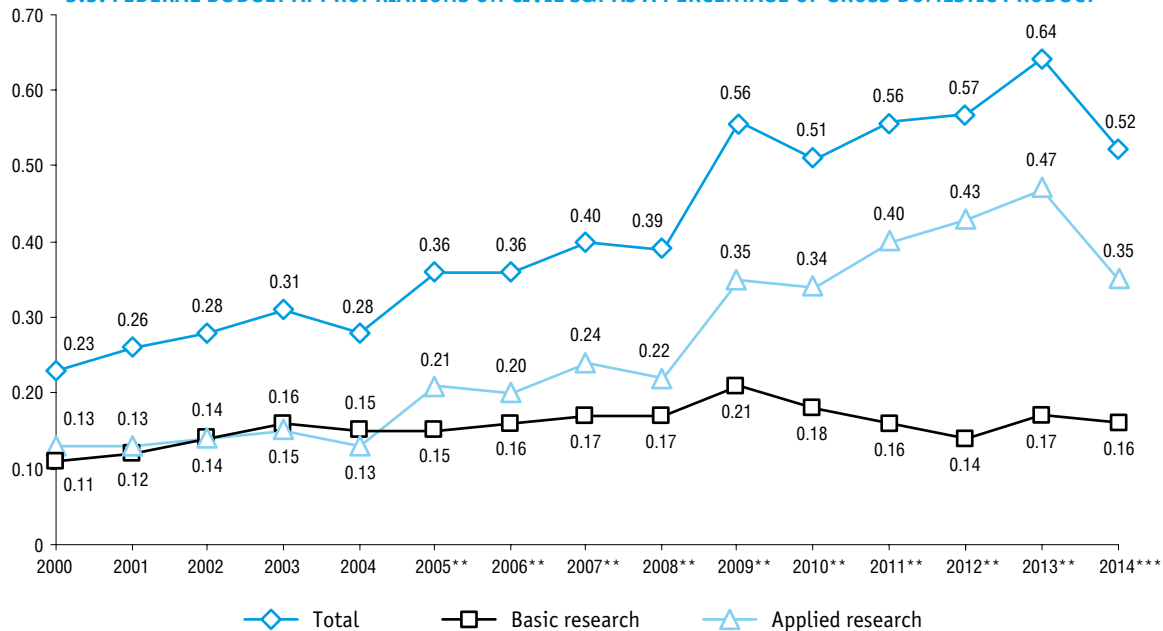


* 2000–2004: appropriations in Section 06 ‘Basic Research and Promotion of Science and Technology Progress’ of the federal budget and its subsections.

** Source for 2005–2013: reports on the implementation of the consolidated budget and budgets of state non-budgetary funds (data is provided by the Federal Treasury).

*** According to the Federal law ‘On the Federal budget for 2014 and the planning period of 2015 and 2016’ (as amended).

3.5. FEDERAL BUDGET APPROPRIATIONS ON CIVIL S&T AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT*

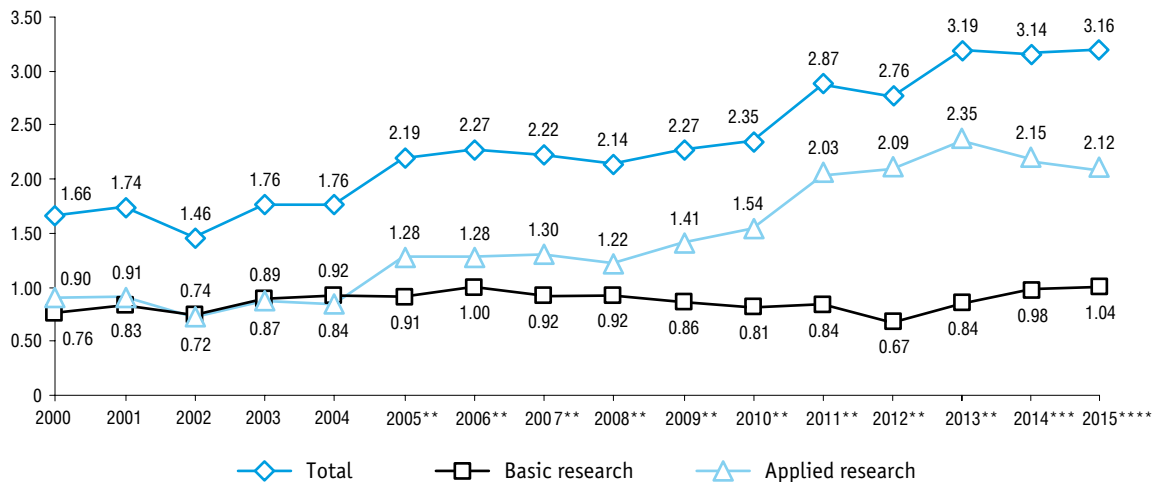


* 2000–2004: appropriations in Section 06 ‘Basic Research and Promotion of Science and Technology Progress’ of the federal budget and its subsections.

** Source for 2005–2013: reports on the implementation of the consolidated budget and budgets of state non-budgetary funds (data is provided by the Federal Treasury).

*** According to the Federal law ‘On the Federal budget for 2014 and the planning period of 2015 and 2016’ (as amended).

3.6. FEDERAL BUDGET APPROPRIATIONS ON CIVIL S&T AS A PERCENTAGE OF FEDERAL BUDGET EXPENDITURE*



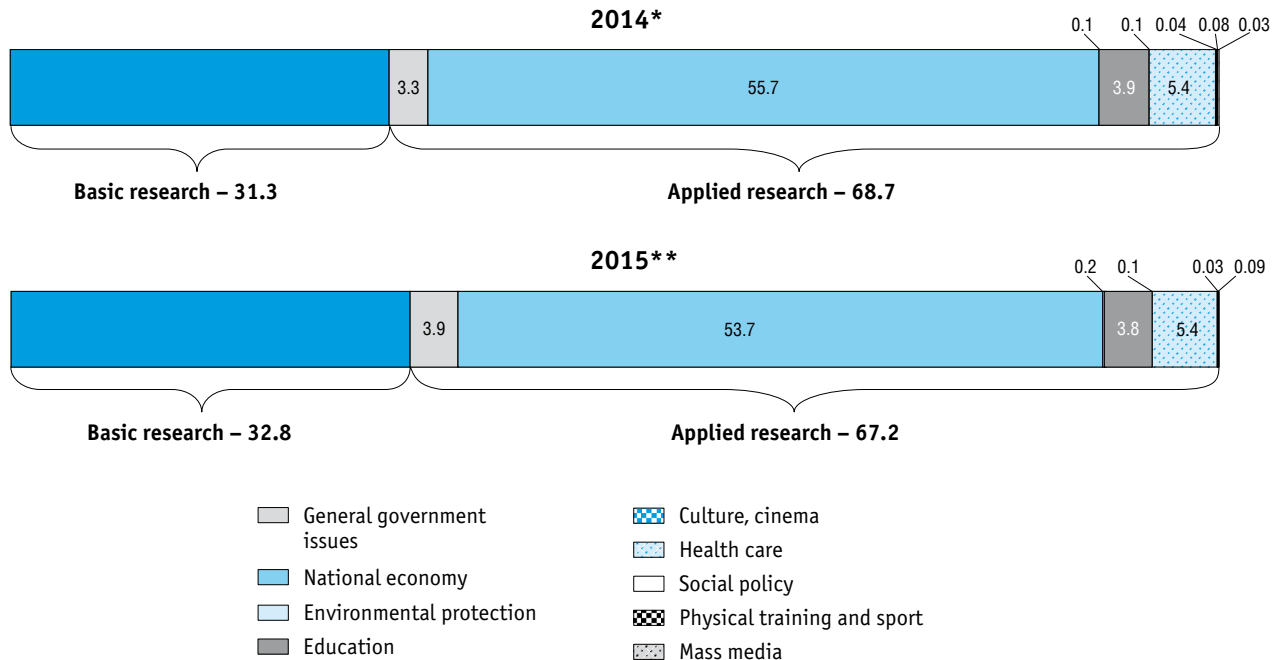
* 2000–2004: appropriations in Section 06 ‘Basic Research and Promotion of Science and Technology Progress’ of the federal budget and its subsections.

** Source for 2005–2013: reports on the implementation of the consolidated budget and budgets of state non-budgetary funds (data is provided by the Federal Treasury).

*** According to the Federal law ‘On the Federal budget for 2014 and the planning period of 2015 and 2016’ (as amended).

**** According to the Federal law ‘On the Federal budget for 2015 and the planning period of 2016 and 2017’.

3.7. PERCENTAGE DISTRIBUTION OF FEDERAL BUDGET APPROPRIATIONS ON CIVIL S&T BY SECTION OF BUDGET EXPENDITURE CLASSIFICATION AND TYPE OF ACTIVITY



* According to the Federal law 'On the Federal budget for 2014 and the planning period of 2015 and 2016' (as amended).

** According to the Federal law 'On the Federal budget for 2015 and the planning period of 2016 and 2017'.

3.8. GROSS DOMESTIC EXPENDITURE ON R&D BY SOURCE OF FUNDS

	Gross domestic expenditure on R&D	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
At current prices, thousand roubles, 1995 – million roubles						
1995	12149458.6	7476767.6	4076707.0	30543.0	3672.1	561768.9
2000	76697100.5	42035655.1	25208436.5	212990.3	67641.5	9172377.1
2001	105260731.6	60228854.3	35394269.5	359916.1	205512.5	9072179.2
2002	135004491.9	78883876.7	44699518.7	426216.0	134353.6	10860526.9
2003	169862369.1	101252097.2	52256884.6	807293.0	277916.5	15268177.8
2004	196039870.2	118867302.8	61528028.1	692412.1	98631.6	14853495.6
2005	230785150.3	142960799.1	69244740.5	983242.0	68412.2	17527956.5
2006	288805211.5	176457427.8	83197909.8	1652533.1	296869.8	27200471.0
2007	371080327.1	232364775.8	109265410.0	2276881.0	377417.8	26795842.5
2008	431073185.2	278992303.3	123695707.2	1993888.9	768479.1	25622806.7
2009	485834338.2	322889237.6	129170972.3	1896167.0	471799.6	31406161.7
2010	523377233.9	368191779.8	133498976.0	2436564.1	682378.0	18567536.0
2011	610426680.6	409449448.8	168957596.6	4664465.3	1209661.5	26145508.4
2012	699869784.8	474789779.0	190545904.2	5905489.1	877937.6	27750674.9
2013	749797638.8	507197614.5	211135955.9	7820677.9	896366.0	22747024.5

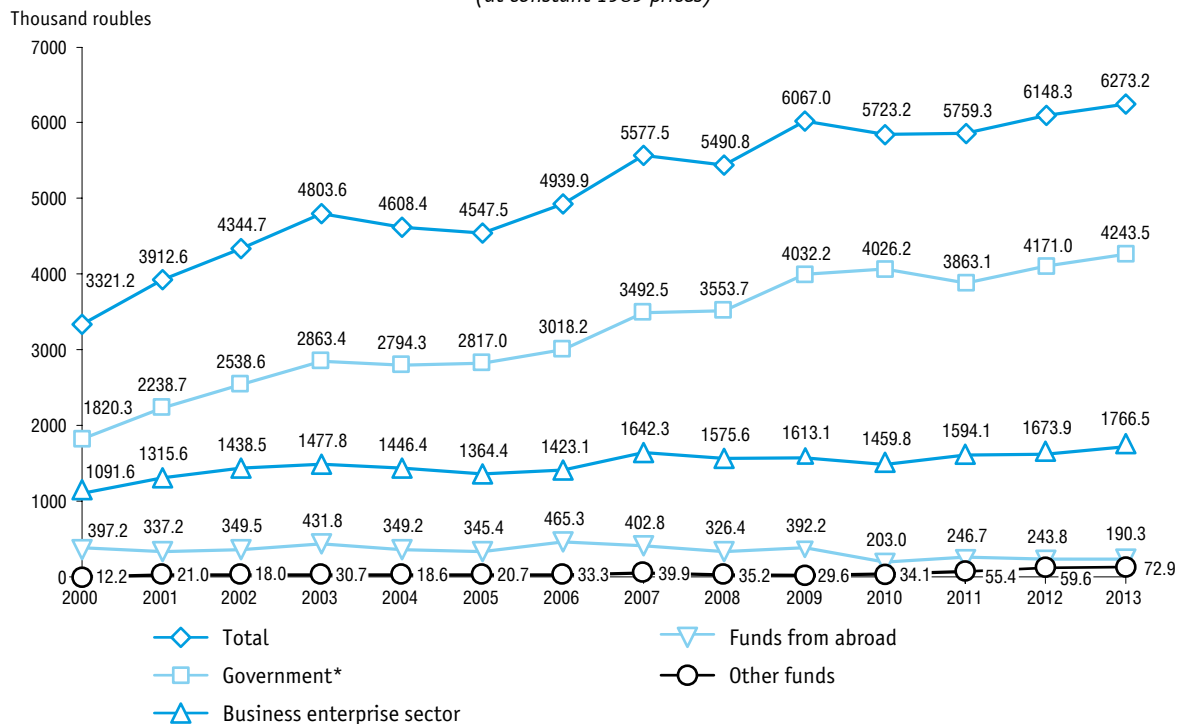
(continued)

	Gross domestic expenditure on R&D	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
	Per cent					
1995	100	61.5	33.6	0.3	0.03	4.6
2000	100	54.8	32.9	0.3	0.09	12.0
2001	100	57.2	33.6	0.3	0.2	8.6
2002	100	58.4	33.1	0.3	0.1	8.0
2003	100	59.6	30.8	0.5	0.2	9.0
2004	100	60.6	31.4	0.4	0.05	7.6
2005	100	61.9	30.0	0.4	0.03	7.6
2006	100	61.1	28.8	0.6	0.1	9.4
2007	100	62.6	29.4	0.6	0.1	7.2
2008	100	64.7	28.7	0.5	0.2	5.9
2009	100	66.5	26.6	0.4	0.1	6.5
2010	100	70.3	25.5	0.5	0.1	3.5
2011	100	67.1	27.7	0.8	0.2	4.3
2012	100	67.8	27.2	0.8	0.1	4.0
2013	100	67.6	28.2	1.0	0.1	3.0

* Including federal budget appropriations, general university funds, and funds of government sector institutions (e.g. own funds of institutions).

3.9. TRENDS IN GROSS DOMESTIC EXPENDITURE ON R&D BY SOURCE OF FUNDS

(at constant 1989 prices)



* Including federal budget appropriations, general university funds and funds of government sector institutions (e.g. own funds of institutions).

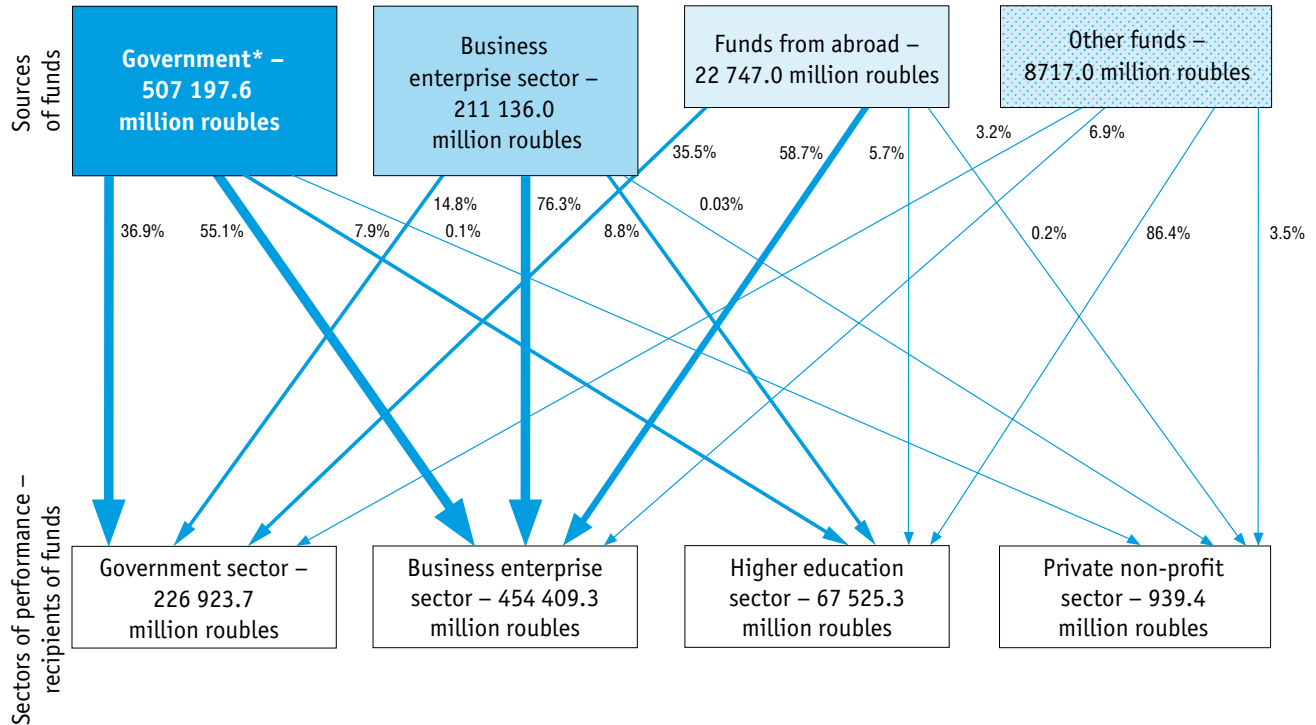
3.10. GRANTS AND COMPETITIVE RESEARCH FUNDING

	2011		2012		2013	
	Total, <i>thousand roubles</i>	Percentage of gross domestic expenditure on R&D	Total, <i>thousand roubles</i>	Percentage of gross domestic expenditure on R&D	Total, <i>thousand roubles</i>	Percentage of gross domestic expenditure on R&D
Grants	14240100.9	2.3	19758073.7	2.8	32617935.0	4.7
Competitive research funding	70441797.9	11.5	100108235.1	14.3	99182182.9	14.2

3.11. GROSS DOMESTIC EXPENDITURE ON R&D FINANCED FROM ABROAD

	2011		2012		2013	
	Total, <i>thousand roubles</i>	Per cent	Total, <i>thousand roubles</i>	Per cent	Total, <i>thousand roubles</i>	Per cent
Gross domestic expenditure on R&D financed from abroad – total	26145508.4	100	27750674.9	100	22747024.5	100
International organisations	4545277.8	17.4	2455666.6	8.8	1424149.2	6.3
Government organisations of foreign countries	8437766.1	32.3	8494449.1	30.6	4582879.4	20.1
Business enterprises of foreign countries	8107379.1	31.0	11674853.5	42.1	15525544.5	68.3
Other foreign organisations (educational institutions, funds, non-profit organisations)	5055085.4	19.3	5125705.7	18.5	1214451.4	5.3

3.12. R&D FUNDING BY SECTOR OF PERFORMANCE: 2013



* Including federal budget appropriations, general university funds and funds of government sector institutions (e.g. own funds of institutions).

3.13. GROSS DOMESTIC EXPENDITURE ON R&D BY OWNERSHIP OF R&D INSTITUTIONS

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>At current prices, thousand roubles, 1995 – million roubles</i>											
Total	12149458.6	76697100.5	230785150.3	288805211.5	371080327.1	431073185.2	485834338.2	523377233.9	610426680.6	699869784.8	749797638.8
Russian ownership	12137095.6	74254897.9	226582085.6	283277704.3	362788255.0	422024862.3	478787821.5	514058161.4	598027432.9	685495275.4	725512775.4
Public ownership	9303329.4	56254567.1	171855852.1	214273392.5	268054481.0	315468440.4	362864344.6	394615118.0	448854863.1	495689326.0	510811584.2
Federal	9047499.6	55150426.2	168986692.6	210972918.2	263267216.7	310681404.3	358511516.2	389105256.8	441676795.3	487535217.5	502816626.9
Regional	255829.8	1099762.3	2869159.5	3284661.9	4674078.0	4675955.0	4181193.6	5396479.0	7152191.4	8124552.8	7994957.3
Municipal ownership	15214.6	50381.9	17253.5	34690.6	38024.6	58426.2	52807.3	50304.2	74152.5	65889.2	93873.2
Ownership of voluntary associations	35640.0	209229.3	339129.1	435221.6	589456.4	610938.9	525257.1	525085.2	711349.2	915629.8	1246181.6
Private ownership	265827.3	4948266.7	20957744.5	35484593.7	51427162.7	63511011.8	66857001.6	60263592.5	69577239.4	80608901.3	94280978.5
Ownership of Russian citizens permanently living abroad	...	...	...	...	...	...	...	...	21631.3	6949.0	...**
Ownership of consumer cooperatives*	...	1095.2	4354.5	3624.3	2635.3	2515.4	35877.1	36590.0	39286.2	2468.5	...**
Joint ownership	2517084.3	12791357.7	33407751.9	33046181.6	42676495.0	42373529.6	48452533.8	55954325.1	69203059.8	83947440.0	89367594.5
Joint ownership with a part of public ownership	...	...	...	...	...	...	...	49557690.9	62421583.0	62059799.4	73525307.2
Other	...	...	...	...	...	...	...	...	6781476.8	21887640.6	15842287.3
Ownership of state corporations	...	...	...	...	...	...	...	2613146.4	9545851.4	24258671.6	29695934.9
Foreign ownership	336.7	117265.0	697993.4	517669.7	675533.7	711942.6	778685.9	1390905.3	1780045.0	2683049.2	7059984.4
Joint ownership (with both Russian and foreign participation)	12026.3	2324937.6	3505071.3	5009837.5	7616538.4	8336380.3	6267830.8	7928167.2	10619202.7	11691460.2	17224879.0

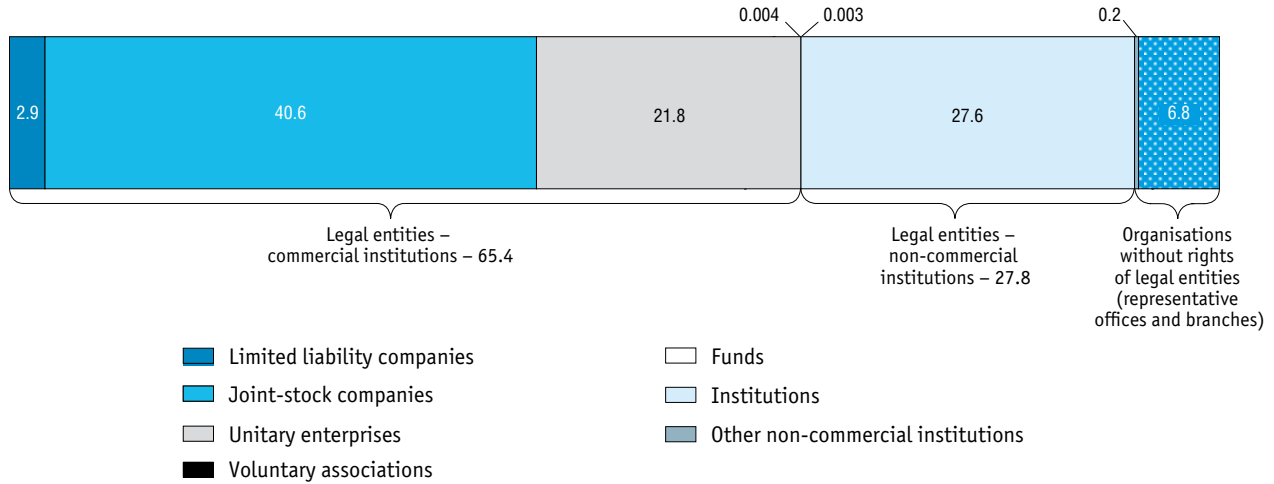
(continued)

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
	Per cent										
Total	100	100	100	100	100	100	100	100	100	100	100
Russian ownership	99.9	96.8	98.2	98.1	97.8	97.9	98.5	98.2	98.0	97.9	96.8
Public ownership	76.6	73.3	74.5	74.2	72.2	73.2	74.7	75.4	73.5	70.8	68.1
Federal	74.5	71.9	73.2	73.1	70.9	72.1	73.8	74.3	72.4	69.7	67.1
Regional	2.1	1.4	1.2	1.1	1.3	1.1	0.9	1.0	1.2	1.2	1.1
Municipal ownership	0.1	0.07	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Ownership of voluntary associations	0.3	0.3	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2
Private ownership	2.2	6.5	9.1	12.3	13.9	14.7	13.8	11.5	11.4	11.5	12.6
Ownership of Russian citizens permanently living abroad	...	...	...	...	...	...	...	...	0.004	0.001	...**
Ownership of consumer cooperatives*	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.006	0.0	...**
Joint ownership	20.7	16.7	14.5	11.4	11.5	9.8	10.0	10.7	11.3	12.0	11.9
Joint ownership with a part of public ownership	...	...	...	...	...	...	...	9.5	10.2	8.9	9.8
Other	...	...	...	...	...	...	...	...	1.1	3.1	2.1
Ownership of state corporations	...	...	...	...	...	...	...	0.5	1.6	3.5	4.0
Foreign ownership	0.002	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.9
Joint ownership (with both Russian and foreign participation)	0.1	3.0	1.5	1.7	2.1	1.9	1.3	1.5	1.7	1.7	2.3

* Until 2000, registered within institutions of private and joint Russian ownership.

** The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

3.14. PERCENTAGE DISTRIBUTION OF GROSS DOMESTIC EXPENDITURE ON R&D BY ORGANISATIONAL AND LEGAL FORM OF INSTITUTIONS: 2013



3.15. GROSS DOMESTIC EXPENDITURE ON R&D BY ECONOMIC ACTIVITY (thousand roubles)

	2005	2007	2008	2009	2010	2011	2012	2013
Total	230785150.3	371080327.1	431073185.2	485834338.2	523377233.9	610426680.6	699869784.8	749797638.8
Agriculture, hunting and forestry	146783.8	234711.8	216759.4	247724.7	253871.9	289856.1	286476.4	392683.9
Fishing, aquaculture and service activities in these fields	5559.6	4815.9	–	2890.8	485.2	–	–	–
Mining and quarrying	584953.6	520979.7	227950.7	79238.0	55728.0	54729.0	42282.0	23211.4
Manufacturing	10631526.1	17388637.3	17425481.7	17009365.1	21372426.7	23051252.7	33489559.2	41036284.6
Electricity, gas and water supply	–	1253.0	2367.0	10085.0	8234.0	8654.0	–	...*
Construction	–	7280.0	–	–	–	–	35200.7	...*
Hotels and restaurants	–	–	–	–	–	–	1074534.1	...*
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	–	28904.0	29469.6	–	–	5468.0	–	–
Transport and communications	29750.3	92908.4	106528.9	117993.5	143777.6	190798.7	6704377.7	2045971.5
Real estate, renting and business activities	207643389.9	330188298.2	384699057.6	433962004.3	455185374.4	530882724.2	591315932.3	634954769.4
Of which:								
research and development	204907680.4	324567876.3	376609160.0	425872251.2	447596655.1	520913787.4	576874368.1	621911256.0
other business activities	2469504.1	4127632.5	6447839.7	6434826.7	5464671.8	7513061.1	9712021.4	8582367.7
Public administration and defence; compulsory social security	–	850.4	–	–	–	–	–	–

(continued)

	2005	2007	2008	2009	2010	2011	2012	2013
Education	11076460.7	20479152.8	25502783.6	31254495.1	39254089.2	50880815.2	61985553.1	64847625.7
Higher education	11071971.7	20441343.1	25455288.1	31224588.5	39220988.4	50849957.2	61929787.4	64705330.3
Health and social services	71943.4	742646.0	1121528.7	1080303.2	4758071.7	2082060.2	1961525.5	2372871.1
Other community, social and personal service activities	594782.9	1389889.6	1741258.0	2070238.5	2345175.2	2980322.5	2974343.8	2908651.8
Recreational, cultural and sporting activities	574352.3	1365064.4	1724918.2	2032341.9	2331388.6	2930451.3	2963837.0	2901432.2

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

3.16. GROSS DOMESTIC EXPENDITURE ON R&D BY TYPE OF COSTS

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
<i>At current prices, thousand roubles</i>										
Gross domestic expenditure on R&D	76697100.5	230785150.3	288805211.5	371080327.1	431073185.2	485834338.2	523377233.9	610426680.6	699869784.8	749797638.8
Intramural current expenditure	73873345.0	221119537.6	277784757.3	352917701.2	410864983.6	461006216.2	489450798.7	568386749.7	655061743.4	699948879.0
Salaries	27762734.2	94274453.3	119354664.7	157514386.8	193344895.7	217897038.1	241472234.1	275925134.3	307881674.7	334769102.6
Of which for R&D personnel*	24452200.6	83218561.7	103821166.7	137956617.2	170633861.4	189457703.8	211660690.5	239162179.8	268058587.8	293118611.5
Social security payments	10419152.6	22597417.5	28352943.9	34565859.1	40020294.9	43723470.6	47904606.9	68647474.6	75417597.8	82806275.3
Equipment	3433380.7	9936177.7	12417625.9	14027427.5	14604195.2	16144658.7	18067655.4	20065178.2	25365780.5	23529482.7
Fixed assets	1289182.4	4349636.2	5406455.5	5866364.7	6669261.8	7973703.9	6839036.4	8231253.4	7407585.8	7486556.4
Other material costs	17470855.0	51304357.4	66886839.9	83426976.6	72945529.7	89861803.2	89279048.7	101591855.4	123689963.6	134096570.4
Other current costs	14787222.5	43007131.7	50772682.9	63383051.2	89950068.1	93379245.6	92727253.6	102157107.2	122706726.8	124747448.0
Capital expenditure	2823755.5	9665612.7	11020454.2	18162625.9	20208201.6	24828122.0	33926435.2	42039930.9	44808041.4	49848759.8
Land and buildings	496202.4	1647639.4	1993820.7	3577647.3	5474654.9	4298550.9	8077521.7	8421252.7	11692714.0	8721163.4
Equipment	1448665.0	5818068.7	6715748.3	11689028.2	10775180.6	15438763.7	19887596.3	23968272.7	25459703.1	27306873.6
Other capital expenditure	878888.1	2199904.6	2310885.2	2895950.4	3958366.1	5090807.4	5961317.2	9650405.5	7655624.3	13820722.8

(continued)

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
	Per cent									
Gross domestic expenditure on R&D	100	100	100	100	100	100	100	100	100	100
Intramural current expenditure	96.3	95.8	96.2	95.1	95.3	94.9	93.5	93.1	93.6	93.4
Salaries	36.2	40.8	41.3	42.4	44.9	44.9	46.1	45.2	44.0	44.6
Of which for R&D personnel*	31.9	36.1	35.9	37.2	39.6	39.0	40.4	39.2	38.3	39.1
Social security payments	13.6	9.8	9.8	9.3	9.3	9.0	9.2	11.2	10.8	11.0
Equipment	4.5	4.3	4.3	3.8	3.4	3.3	3.5	3.3	3.6	3.1
Other material costs	22.8	22.2	23.2	22.5	16.9	18.5	17.1	16.6	17.7	17.9
Other current costs	19.3	18.6	17.6	17.1	20.9	19.2	17.7	16.7	17.5	16.6
Capital expenditure	3.7	4.2	3.8	4.9	4.7	5.1	6.5	6.9	6.4	6.6
Land and buildings	0.6	0.7	0.7	1.0	1.3	0.9	1.5	1.4	1.7	1.2
Equipment	1.9	2.5	2.3	3.1	2.5	3.2	3.8	3.9	3.6	3.6
Other capital expenditure	1.1	0.95	0.8	0.8	0.9	1.0	1.1	1.6	1.1	1.8

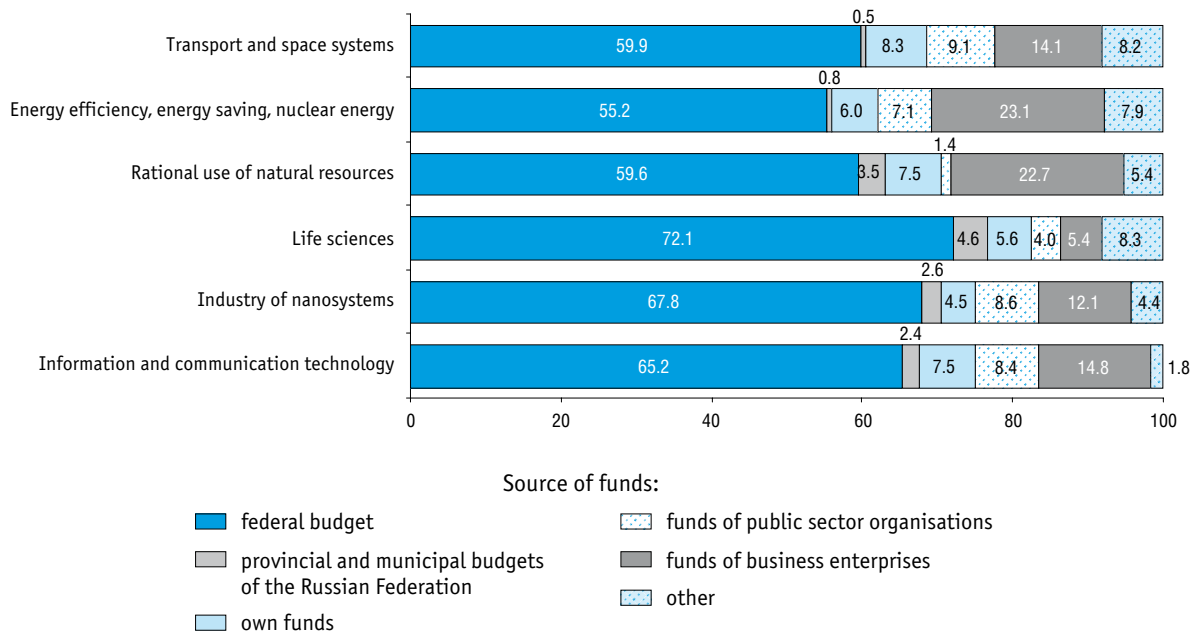
* Excluding those employed on a plural basis and under contracts.

3.17. GROSS DOMESTIC EXPENDITURE ON R&D BY PRIORITY S&T AREA AND SOURCE OF FUNDS: 2013

(thousand roubles)

	Total	Information and communication technology	Industry of nano-systems	Life sciences	Rational use of natural resources	Energy efficiency, energy saving, nuclear energy	Transport and space systems
Gross domestic expenditure on R&D by priority S&T area	491274734.4	60031730.3	18708158.2	29366068.5	33309192.4	76417070.9	185397623.1
Sources of funds:							
federal budget	301087432.2	39155175.6	12689361.7	21184847.2	19848655.8	42203497.9	111139311.1
provincial and municipal budgets of the Russian Federation	7645602.1	1416712.6	489722.5	1360338.8	1167072.9	617646.5	874830.8
own funds	40159360.3	4496678.5	836639.9	1644689.0	2490256.2	4591388.0	15323625.5
funds of public sector organisations	35510072.3	5019015.5	1600191.0	1162875.0	464273.0	5390609.8	16800672.6
funds of business enterprises	75489555.3	8878301.6	2262302.2	1585669.4	7549278.4	17615167.1	26123172.1
other sources	31382712.2	1065846.5	829940.9	2427649.1	1789656.1	5998761.6	15136011.0

3.18. PERCENTAGE DISTRIBUTION OF GROSS DOMESTIC EXPENDITURE ON R&D BY PRIORITY S&T AREA AND SOURCE OF FUNDS: 2013



3.19. GROSS DOMESTIC EXPENDITURE ON R&D BY SOCIO-ECONOMIC OBJECTIVE

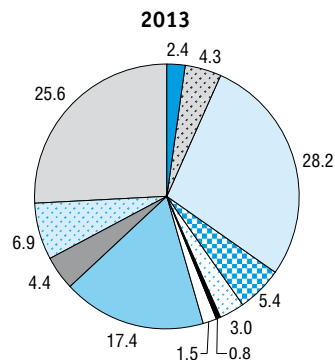
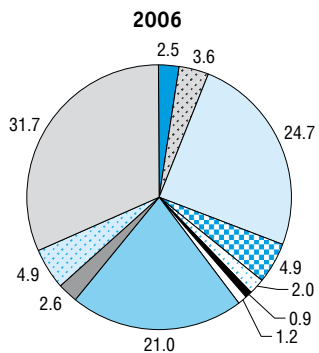
(thousand roubles)







	2006	2008	2009	2010	2011	2012	2013
Gross domestic expenditure on R&D	288805211.5	431073185.2	485834338.2	523377233.9	610426680.6	699869784.8	749797638.8
Economic development	103033497.6	157814603.7	169117727.8	183113782.3	231941668.2	295901906.0	303849005.2
Agriculture, hunting and forestry	7248977.0	11198584.3	13065634.0	12090814.9	15011619.7	16151602.6	18162639.9
Production, distribution and rational use of energy	10267046.6	18583742.6	19690591.5	19174764.6	19913673.7	30798200.6	32391136.1
Industry	71319151.3	108227204.7	118806663.3	126029410.7	156695798.9	200459644.4	211581275.8
Increasing economic efficiency and technological level of industry	8331516.8	15344911.2	12590931.7	14916168.9	19904782.4	22472542.8	23766954.4
Extraction and processing of non-energy minerals	628547.3	1019563.3	958185.2	1279265.4	1359844.0	1863605.2	2857681.5
Manufacture of chemicals and chemical products	4194564.2	5382152.9	6099362.6	5839135.5	6835610.4	9155732.6	9253596.1
Manufacture of motor vehicles and other transport equipment	14450931.1	20101084.3	19308677.6	21495410.4	25640612.6	32391176.2	43571684.0
Electronics, manufacture of radio, television and communication equipment and apparatus	9281563.7	12307384.7	14509018.6	13389386.0	17546855.7	26449997.0	30121503.4
Software development	3355339.6	7291337.9	7196829.9	6740442.6	7701782.0	8932282.7	10343013.7
Manufacture of electrical machinery and apparatus	1292927.0	2589759.5	2057059.8	2879253.1	3179319.1	5235647.6	10666259.5
Manufacture of instruments	6600437.6	12682004.6	10399399.1	13466912.8	20205983.0	29563984.4	26441262.5
Manufacture of other machinery and equipment	6965389.1	10595335.5	12612240.5	13654259.2	15485756.9	15781575.2	14251449.9
Manufacture of textiles, clothing, and leather	54077.2	105239.8	52464.5	97483.3	106648.1	254582.3	116171.9
Manufacture of food products and beverages	296729.6	432249.3	1047231.1	565348.2	565873.8	758191.9	1043282.0
Other sectors of industry	15867128.1	20376181.7	31975262.7	31706345.3	38162730.9	47600326.5	39148416.9






(continued)

	2006	2008	2009	2010	2011	2012	2013
Construction	2697184.2	5569314.7	3514829.4	5513681.4	7294997.0	8504203.4	5514071.6
Transport	9011178.7	10419270.0	8862627.7	12686004.3	22041615.8	23986235.6	26950369.3
Communications	1709581.2	2354882.8	4466744.0	6704734.7	9211899.0	14147246.2	7577748.3
Infrastructure and general planning of land use	430140.7	726580.4	380775.6	354546.0	916966.4	912451.2	702102.6
Services sector	350237.9	735024.2	329862.3	559825.7	855097.7	942322.0	969661.6
Social objectives	11954593.3	17735503.9	23520636.0	24966176.4	29640390.9	33070785.7	39876895.8
Control and care of the environment	2595076.2	4365560.7	5563877.5	5950018.6	6638173.2	6972125.5	6139294.7
Protection and improvement of human health	5897030.0	9869611.2	13006918.4	14373675.7	17100379.3	19694713.1	22382779.3
Social development and community building	3462487.1	3500332.0	4949840.1	4642482.1	5901838.4	6403947.1	11354821.8
General advancement of research	60629124.4	110853857.1	114239973.1	104294714.1	111947458.3	117873370.5	130695141.4
Exploration and exploitation of the Earth and atmosphere	7577493.4	12601082.0	15248532.6	19821817.2	20390660.8	25474648.5	32889936.2
Civil space	14018574.9	13810148.3	25872001.8	27503697.9	35752455.2	37558965.0	51558366.4
Other	91591927.9	118257990.2	137835466.9	163677046.0	180754047.2	189990109.1	190928293.8

3.20. PERCENTAGE DISTRIBUTION OF GROSS DOMESTIC EXPENDITURE ON R&D BY SOCIO-ECONOMIC OBJECTIVE



-  Agriculture
-  Energy industry
-  Industry
-  Other economic objectives
-  Human health
-  Control and care of the environment

-  Social development
-  General advancement of research
-  Exploration and exploitation of the Earth and atmosphere
-  Civil space
-  Other

3.21. INTRAMURAL CURRENT EXPENDITURE ON R&D BY TYPE OF ACTIVITY AND FIELD OF SCIENCE AND TECHNOLOGY

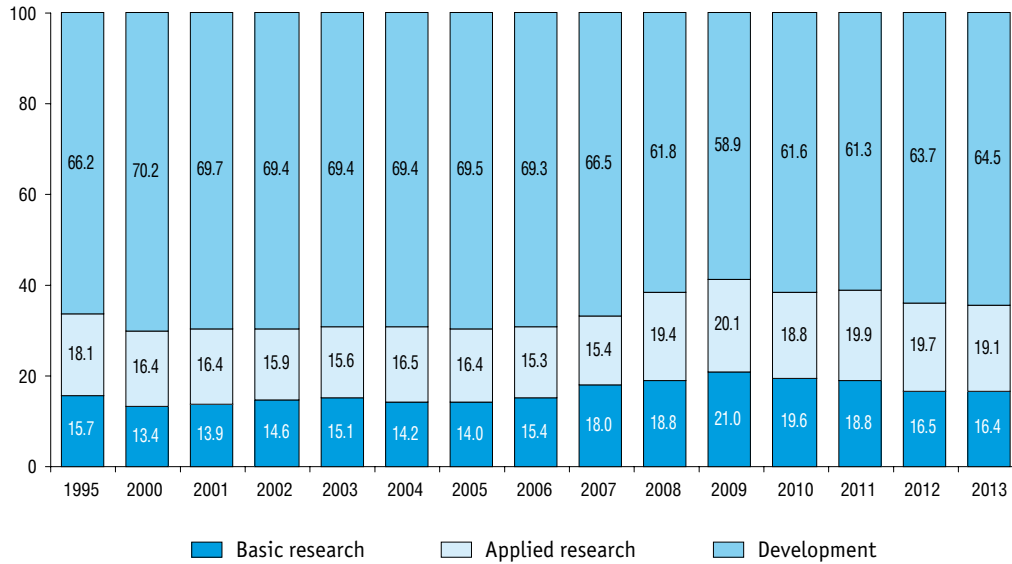
(thousand roubles)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
2005							
Intramural current expenditure on R&D	221119537.6	34579040.8	171109626.3	4571313.8	4159368.3	4628535.6	2071652.8
Basic research	31022855.8	19345182.8	4579039.5	1865239.8	1947227.1	1723405.3	1562761.3
Applied research	36360266.9	8860755.5	21725918.2	2051910.3	1409317.9	1957292.2	355072.8
Development	153736414.9	6373102.5	144804668.6	654163.7	802823.3	947838.1	153818.7
2008							
Intramural current expenditure on R&D	410864983.6	78078037.1	296901936.2	11382107.9	8339624.5	10482105.9	5681172.0
Basic research	77121264.3	45590599.9	14552606.2	4300297.3	4366212.4	3972507.2	4339041.3
Applied research	79885835.9	19007488.9	46977376.5	5769410.3	2226959.9	5105301.5	799298.8
Development	253857883.4	13479948.3	235371953.5	1312400.3	1746452.2	1404297.2	542831.9
2009							
Intramural current expenditure on R&D	461006216.2	86633250.8	333327965.5	13794449.8	9569659.4	11804063.6	5876827.1
Basic research	96809127.3	52252859.5	22653573.5	6418092.0	5378449.3	5288288.4	4817864.6
Applied research	92557125.5	20782035.6	56915796.5	6418162.5	2629331.9	4948142.5	863656.5
Development	271639963.4	13598355.7	253758595.5	958195.3	1561878.2	1567632.7	195306.0

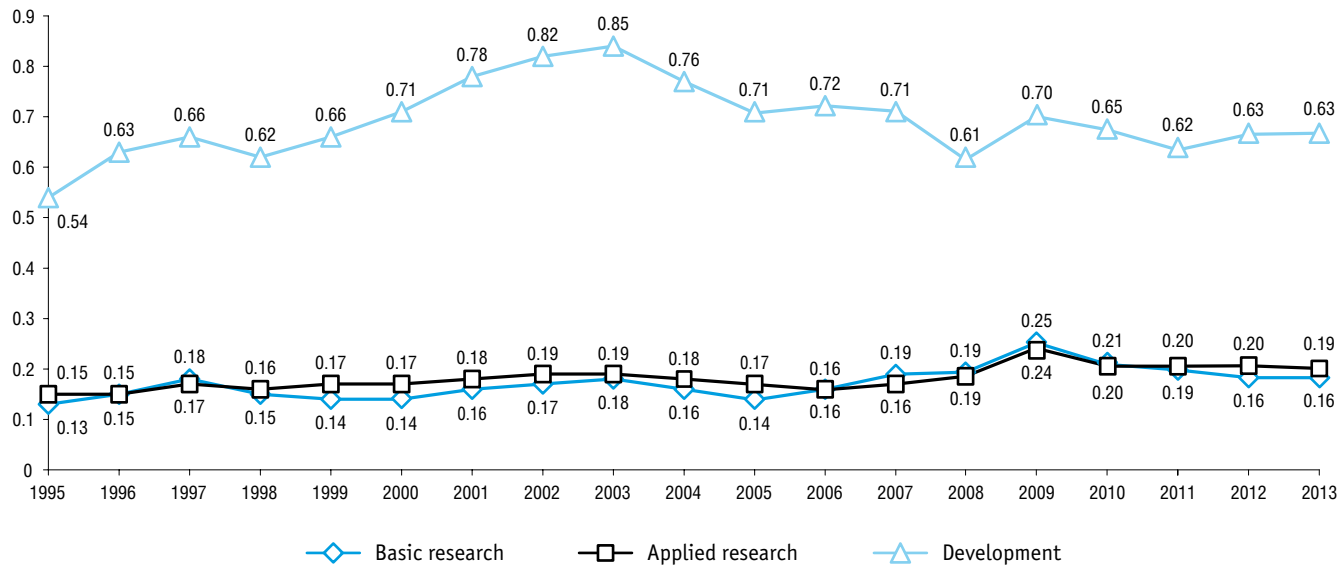
(continued)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
2010							
Intramural current expenditure on R&D	489450798.7	96010015.2	348621966.4	15462300.4	8887624.5	13752461.7	6716430.5
Basic research	95881364.3	50550000.6	22866475.2	6378644.4	4766037.6	6074153.0	5246053.5
Applied research	92010677.2	27202686.8	46841680.2	7900476.3	2582521.1	6199410.7	1283902.1
Development	301558757.2	18257327.8	278913811.0	1183179.7	1539065.8	1478898.0	186474.9
2011							
Intramural current expenditure on R&D	568386749.7	107163564.9	406785676.0	18745756.1	10455768.3	17007802.7	8228181.7
Basic research	106923986.6	58539607.1	22922743.3	7245779.3	5282967.4	6330795.2	6602094.3
Applied research	113096800.2	32019059.7	58033819.9	9856051.9	3396085.1	8564175.2	1227608.4
Development	348365962.9	16604898.1	325829112.8	1643924.9	1776715.8	2112832.3	398479.0
2012							
Intramural current expenditure on R&D	655061743.4	118944091.0	476478373.9	20242776.7	10855458.7	18732780.1	9808263.0
Basic research	108160904.7	62038278.0	20496211.5	7623680.5	4587407.0	6563320.3	6852007.4
Applied research	129304402.1	32656475.6	69302228.8	10852676.9	4503917.6	9824213.5	2164889.7
Development	417596436.6	24249337.4	386679933.6	1766419.3	1764134.1	2345246.3	791365.9
2013							
Intramural current expenditure on R&D	699948879.0	124384149.8	511559101.0	21833262.2	11504657.6	20769449.3	9898259.1
Basic research	114829117.8	62710077.9	22645513.3	9046385.0	4845910.5	8500037.6	7081193.5
Applied research	133787976.7	36709680.9	69787265.9	10611446.9	4651482.5	9865521.3	2162579.2
Development	451331784.5	24964391.0	419126321.8	2175430.3	2007264.6	2403890.4	654486.4

3.22. PERCENTAGE DISTRIBUTION OF INTRAMURAL CURRENT EXPENDITURE ON R&D BY TYPE OF ACTIVITY



3.23. INTRAMURAL CURRENT EXPENDITURE ON R&D BY TYPE OF ACTIVITY AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT



3.24. AVERAGE MONTHLY SALARY OF R&D PERSONNEL

	1995	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Average monthly salary, <i>roubles, 1995 – thousand roubles</i>	305.3	5712.8	6918.4	8672.0	10840.9	14683.4	19263.3	22104.3	25043.5	28387.5	32539.9	35618.8
As a percentage of that:												
in the national economy (=100%)	64.6	103.9	102.7	101.4	101.9	108.0	111.4	118.6	119.5	121.5	122.2	119.6
in manufacturing (=100%)	67.3	102.0	101.0	103.0	106.3	114.0	120.0	133.3	131.3	130.3	132.8	131.7
in construction (=100%)	52.0	92.5	94.7	95.9	99.7	102.4	103.7	122.0	118.3	119.9	125.4	128.6



4. R&D Fixed Assets

4.1. R&D FIXED ASSETS

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
At current prices													
Fixed assets – total, million roubles, 1995 – billion roubles	85087.6	237564.4	348418.0	362421.8	399515.9	509336.8	581965.9	612318.3	705048.1	741512.1	859318.0	914572.2	1086445.9
Per one employee, thousand roubles, 1995 – million roubles	80.2	267.6	405.9	431.8	491.3	631.1	726.4	804.4	949.6	1006.8	1168.7	1259.2	1494.4
Per one researcher, thousand roubles, 1995 – million roubles	164.0	557.7	850.3	902.8	1021.5	1309.6	1481.4	1629.4	1909.5	2010.0	2292.8	2454.4	2944.2
Machines and equipment, million roubles, before 1998 – billion roubles*	26505.8	66938.3	105739.9	120533.3	142154.7	159452.5	196844.6	226391.7	288345.5	300165.9	348511.4	398562.4	466609.0
Per one employee, thousand roubles, 1995 – million roubles	25.0	75.4	123.2	143.6	174.8	197.6	245.7	297.4	388.4	407.5	474.0	548.7	641.8
Per one researcher, thousand roubles, 1995 – million roubles	51.1	157.1	258.0	300.3	363.5	410.0	501.1	602.4	780.9	813.6	929.9	1069.6	1264.5

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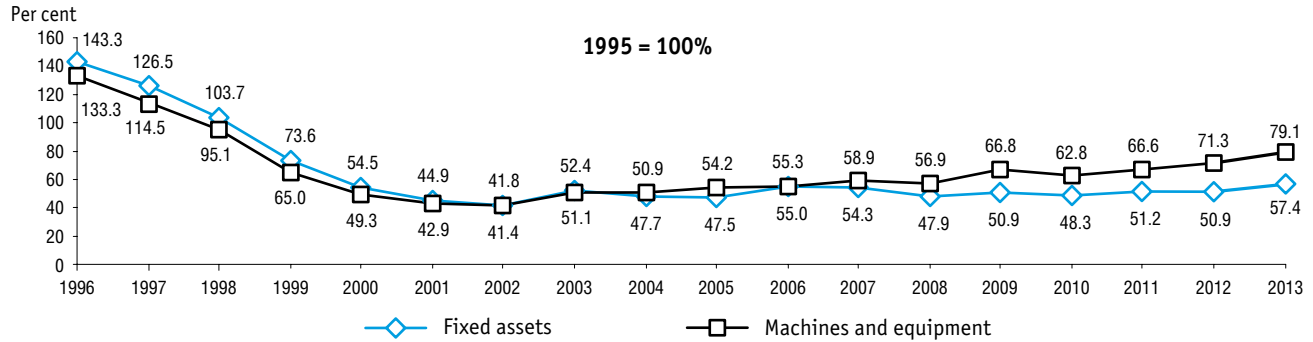
	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
At constant 1995 prices**													
Fixed assets – total, million roubles, 1995 – billion roubles	85087.6	46336.0	44600.4	40589.3	40383.7	46805.4	46184.1	40766.9	43302.3	41103.8	43540.6	43348.8	48811.5
Per one employee, thousand roubles, 1995 – million roubles	80.2	52.2	52.0	48.4	49.7	58.0	57.6	53.6	58.3	55.8	59.2	59.7	67.1
Per one researcher, thousand roubles, 1995 – million roubles	164.0	108.8	108.8	101.1	103.3	120.3	117.6	108.6	117.3	111.4	116.2	116.3	132.3
Machines and equipment, million roubles, before 1998 – billion roubles*	26505.8	13056.0	13535.6	13499.1	14369.2	14652.9	15621.3	15072.7	17709.5	16638.9	17658.7	18891.0	20963.7
Per one employee, thousand roubles, 1995 – million roubles	25.0	14.7	15.8	16.1	17.7	18.2	19.5	19.8	23.9	22.6	24.0	26.0	28.8
Per one researcher, thousand roubles, 1995 – million roubles	51.1	30.7	33.0	33.6	36.7	37.7	39.8	40.1	48.0	45.1	47.1	50.7	56.8

* In 2012, the value of machines and equipment no older than 5 years was 169757.0 million roubles, or 42.6% of their total cost; in 2013 – 205062.6 million roubles, or 43.9% of their total cost.

** Calculated on the basis of deflators for gross fixed capital formation.

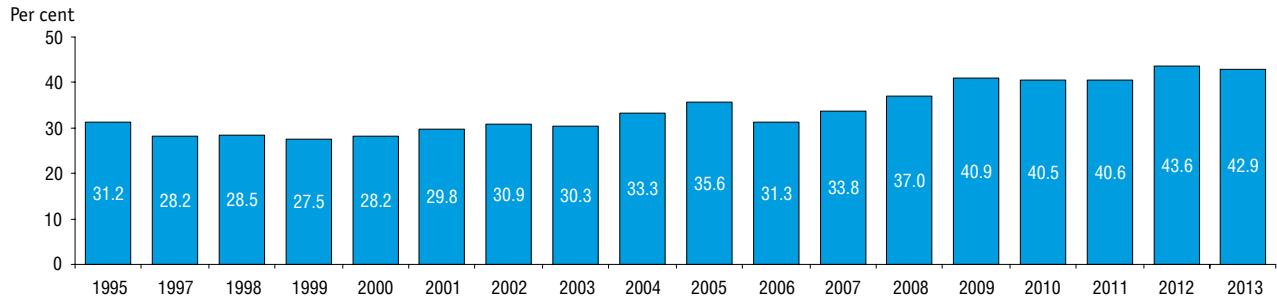
4.2. TRENDS IN VALUE OF R&D FIXED ASSETS*

(at constant 1995 prices)



* Calculated on the basis of deflators for gross fixed capital formation.

4.3. MACHINES AND EQUIPMENT AS A PERCENTAGE OF THE TOTAL VALUE OF R&D FIXED ASSETS



4.4. R&D FIXED ASSETS BY OWNERSHIP OF INSTITUTIONS

(million roubles, 1995 – billion roubles)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Fixed assets													
Total	85087.6	237564.4	348418.0	362421.8	399515.9	509336.8	581965.9	612318.3	705048.1	741512.1	859318.0	914572.2	1086445.9
Russian ownership	85081.2	232793.0	342981.0	356206.2	393181.0	503968.3	570760.1	600596.0	696133.5	725165.1	847942.2	897838.2	1052994.8
Public ownership	71686.4	194659.0*	298313.1	311757.9	344693.4	442539.7	504967.3	537366.1	619151.2	635491.6	736631.7	757157.9	886578.4
Federal	70561.9	191972.3	292911.8	304821.5	336223.9	430165.8	486643.7	518920.0	574713.9	617118.2	712172.1	733671.7	861801.5
Regional	1124.5	2686.3	5401.3	6936.4	8469.5	11898.5	17526.8	17479.4	43454.1	18110.1	24452.1	23477.9	24776.9
Municipal ownership	190.0	541.7	25.6	3.9	28.2	22.0	32.9	34.7	40.7	35.9	74.7	17.3	53.0
Ownership of voluntary associations	77.5	221.8	34.1	34.1	38.9	43.3	90.0	85.4	82.4	82.1	98.7	164.4	372.6
Private ownership	1306.4	10499.1	12068.4	10468.3	17478.8	24052.8	25338.8	26957.6	30709.8	43615.5	49833.4	56938.0	64420.2
Ownership of Russian citizens permanently living abroad	...	...	...	...	...	...	...	...	...	...	18.1	17.0	...***
Ownership of consumer cooperatives**	...	0.09	0.9	1.0	0.9	0.06	0.9	0.9	1.6	1.7	5.5	–	–
Joint ownership	11820.9	26871.3	32538.9	33941.0	30940.7	37310.4	40330.3	36151.4	46147.9	42862.9	52606.5	59170.5	68104.5
Joint ownership with a part of public ownership	...	...	...	...	...	...	...	...	...	38571.0	47524.3	47722.7	56261.7
Other	...	...	...	...	...	...	...	...	...	...	5082.1	11447.8	11842.7
Ownership of state corporations	...	...	...	...	...	...	...	...	...	3075.4	8673.7	24373.1	33451.8
Foreign ownership	0.04	49.0	59.6	75.5	114.9	126.0	225.1	216.2	124.3	1131.5	1063.7	1177.8	3064.9
Joint ownership (with both Russian and foreign participation)	6.4	4722.4	5377.4	6140.1	6220.1	5242.5	10980.6	11506.0	8790.3	15215.5	10312.1	15556.2	30386.2

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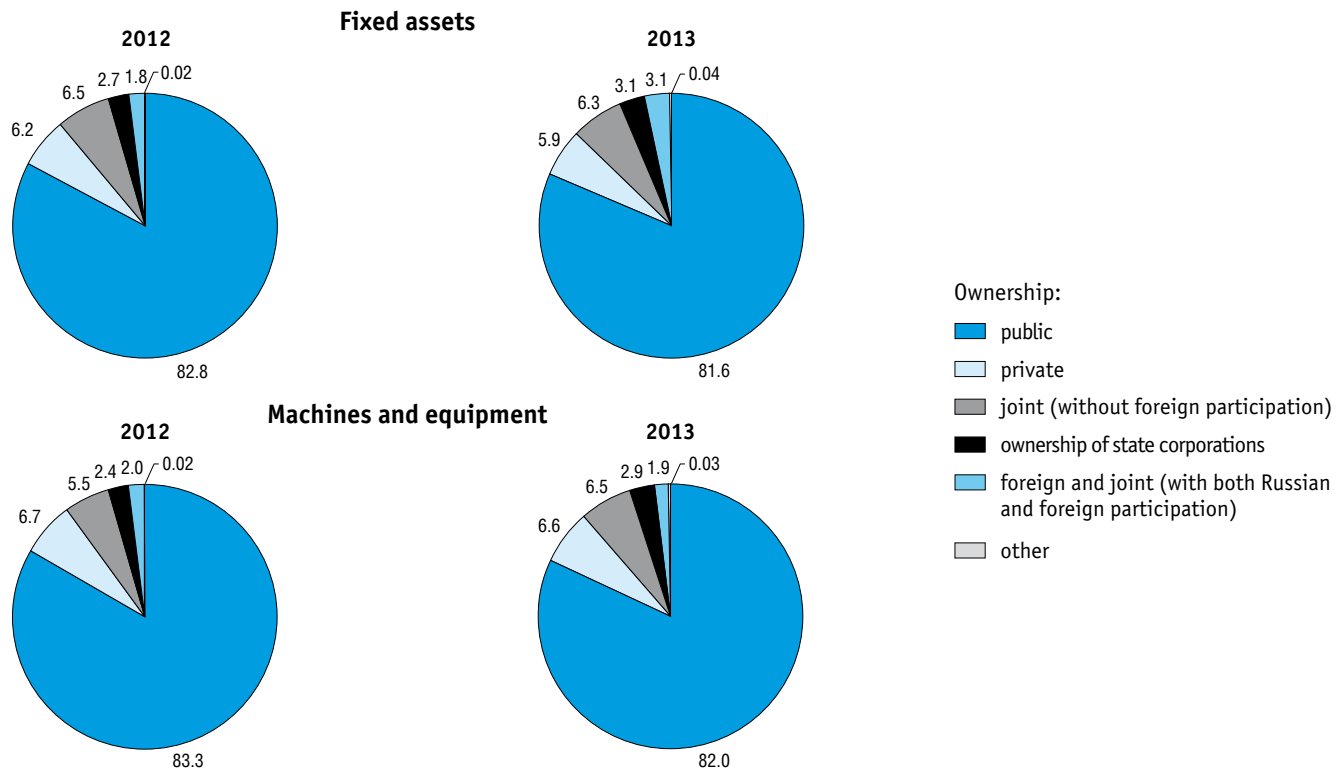
	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	Machines and equipment												
Total	26505.8	66938.3	105739.9	120533.3	142154.7	159452.5	196844.6	226391.7	288345.5	300165.9	348511.4	398562.4	466609.0
Russian ownership	26503.0	65631.5	103958.6	118511.7	140294.5	157833.3	191984.4	221221.1	283264.4	290440.4	341846.2	390464.6	457596.7
Public ownership	21632.0	53434.4*	87983.1	102288.6	121662.2	134545.8	164900.6	194059.9	250646.7	256172.4	293528.4	332053.6	382612.7
Federal	21340.3	52750.5	85871.5	98656.7	117529.4	129240.8	156807.8	185556.4	215954.3	248766.8	284876.3	323644.7	371352.8
Regional	291.7	683.5	2111.7	3631.9	4132.8	5304.1	8038.5	8379.1	34654.2	7284.9	8645.6	8401.9	11259.9
Municipal ownership	113.0	176.0	24.5	2.8	4.7	3.8	7.6	11.3	25.5	6.2	17.0	4.4	6.7
Ownership of of voluntary associations	32.3	41.6	26.4	20.2	20.4	32.0	61.7	56.2	47.0	49.5	69.9	62.6	98.2
Private ownership	353.5	4235.7	4866.8	4297.6	8094.0	10567.1	10656.1	12278.4	15307.8	17150.5	22907.4	26610.2	30837.6
Ownership of Russian citizens permanently living abroad	...	...	...	...	...	...	...	...	...	...	17.0	16.0	...***
Ownership of consumer cooperatives**	...	0.09	0.2	0.2	0.2	0.06	0.2	0.2	0.9	1.0	4.2	-	-
Joint ownership	4372.2	7743.7	11057.6	11902.3	10513.1	12684.7	16358.2	14815.2	17236.5	15944.0	21883.9	22090.9	30297.8
Joint ownership with a part of public ownership	...	...	...	...	...	...	...	...	...	13870.9	19476.7	16689.3	25209.2
Other	...	...	...	...	...	...	...	...	...	...	2407.1	5401.6	5088.6
Ownership of state corporations	...	...	...	...	...	...	...	...	...	1116.7	3418.5	9627.0	13730.4
Foreign ownership	0.03	48.2	51.3	57.2	61.0	77.6	128.3	119.6	83.7	630.0	611.0	438.0	668.9
Joint ownership (with both Russian and foreign participation)	2.8	1258.6	1729.9	1964.4	1792.2	1541.6	4731.9	5050.9	4997.4	9095.5	6054.2	7659.8	8343.4

* Details may not add up to the total because of shared ownership at some institutions.

** Until 2000, registered within institutions of private and joint Russian ownership.

*** The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

4.5. PERCENTAGE DISTRIBUTION OF R&D FIXED ASSETS BY OWNERSHIP OF INSTITUTIONS



4.6. R&D FIXED ASSETS BY ECONOMIC ACTIVITY

(million roubles)

	Fixed assets			Machines and equipment		
	2011	2012	2013	2011	2012	2013
Total	859318.0	94572.2	1086445.9	348511.4	398562.4	466609.0
Agriculture, hunting and forestry	877.4	670.4	846.9	216.9	158.9	164.6
Fishing, aquaculture and service activities in these fields	–	–	–	–	–	–
Mining and quarrying	165.6	77.1	12.5	157.6	71.3	10.4
Manufacturing	42135.9	59123.8	65763.2	23250.7	30407.5	31652.9
Electricity, gas and water supply	–	–	–	–	–	–
Construction	–	39.9	...*	–	33.5	...*
Hotels and restaurants	–	1922.2	...*	–	1461.5	...*
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	0.3	–	–	0.05	–	–
Transport and communications	288.5	665.5	636.9	138.5	382.0	329.8
Real estate, renting and business activities	619299.3	698326.7	849363.9	274921.4	309145.8	364450.3
Of which:						
research and development	610259.5	681070.6	830424.8	271233.0	302177.6	357486.9
other business activities	6559.8	11396.2	12077.8	2668.0	4318.0	4508.0
Public administration and defence; compulsory social security	–	–	–	–	–	–
Education	173320.6	128199.8	142890.6	42833.3	48319.8	58534.9
Higher education	173241.0	128179.5	142757.2	42800.4	48315.8	58514.6
Health and social services	14356.8	17851.6	22045.5	6070.5	7666.5	9594.6
Other community, social and personal service activities	8873.6	7695.2	3365.5	922.4	915.6	407.0
Of which organising recreational, cultural and sporting activities	8863.1	7682.6	3355.5	911.9	905.6	399.6

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).



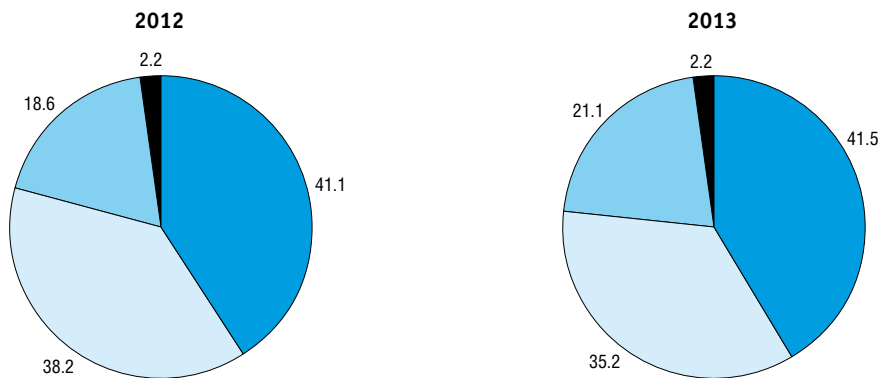
5. Sectors of R&D Performance

5.1. Aggregate Indicators

5.1.1. R&D INSTITUTIONS BY SECTOR OF PERFORMANCE

	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
1995	4059	1193	2345	511	10
2000	4099	1247	2278	526	48
2001	4037	1248	2213	529	47
2002	3906	1218	2110	531	47
2003	3797	1233	1990	526	48
2004	3656	1230	1851	533	42
2005	3566	1282	1703	539	42
2006	3622	1341	1682	540	59
2007	3957	1483	1742	616	116
2008	3666	1429	1540	603	94
2009	3536	1406	1446	603	81
2010	3492	1400	1405	617	70
2011	3682	1457	1450	696	79
2012	3566	1465	1362	662	77
2013	3605	1495	1269	762	79

5.1.2. PERCENTAGE DISTRIBUTION OF R&D INSTITUTIONS BY SECTOR OF PERFORMANCE



Sectors of performance:



5.1.3. R&D PERSONNEL BY SECTOR OF PERFORMANCE AND OCCUPATION (headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	1061044	887729	858470	839338	813207	807066	801135	761252	742433	736540	735273	726318	727029
Researchers	518690	425954	409775	401425	391121	388939	392849	375804	369237	368915	374746	372620	369015
Technicians	101371	75184	71729	69963	65982	66031	64569	60218	60045	59276	61562	58905	61401
Supporting staff	274925	240506	229214	223356	215555	213579	208052	194769	186995	183713	178494	175790	175365
Others	166058	146085	147752	144594	140549	138517	135665	130461	126156	124636	120471	119003	121248
Government sector	282166	255850	256098	258078	272718	274802	272255	260854	260360	259007	254896	271466	261869
Researchers	146342	129725	131906	132350	139378	138728	138169	132261	132955	131734	128672	136442	132117
Technicians	27178	25085	25083	25223	25462	25667	26545	24531	24554	24009	26960	28094	27777
Supporting staff	66226	59706	55782	57057	61448	62482	61031	58591	56846	56530	54176	60067	56795
Others	42420	41334	43327	43448	46430	47925	46510	45471	46005	46734	45088	46863	45180
Business enterprise sector	726568	590646	558668	537473	496706	486613	478401	451532	432415	423112	419752	394182	405268
Researchers	336671	267640	248232	239172	221445	218702	219632	209579	201668	197785	202185	192285	193736
Technicians	70180	46535	43137	41171	36837	36315	33340	31230	30613	30063	28235	26720	28920
Supporting staff	201122	175261	166620	159650	147980	144966	140507	129496	123814	120485	116829	106306	109691
Others	118595	101210	100679	97480	90444	86630	84922	81227	76320	74779	72503	68871	72921
Higher education sector	52065	40787	43120	43414	43500	44473	49059	47595	48498	53290	59454	59469	59247
Researchers	35508	28325	29346	29670	30111	30793	34162	33160	33847	38640	43121	43103	42692
Technicians	4010	3509	3434	3534	3658	3972	4606	4349	4778	5095	6256	3998	4670
Supporting staff	7520	5463	6695	6607	6098	5945	6282	6520	6198	6564	7345	9264	8828
Others	5027	3490	3645	3603	3633	3763	4009	3566	3675	2991	2732	3104	3057
Private non-profit sector	245	446	584	373	283	1178	1420	1271	1160	1131	1171	1201	645
Researchers	169	264	291	233	187	716	886	804	767	756	768	790	470
Technicians	3	55	75	35	25	77	78	108	100	109	111	93	34
Supporting staff	57	76	117	42	29	186	232	162	137	134	144	153	51
Others	16	51	101	63	42	199	224	197	156	132	148	165	90

5.1.4. R&D PERSONNEL BY SECTOR OF PERFORMANCE AND EDUCATIONAL ATTAINMENT (headcount)

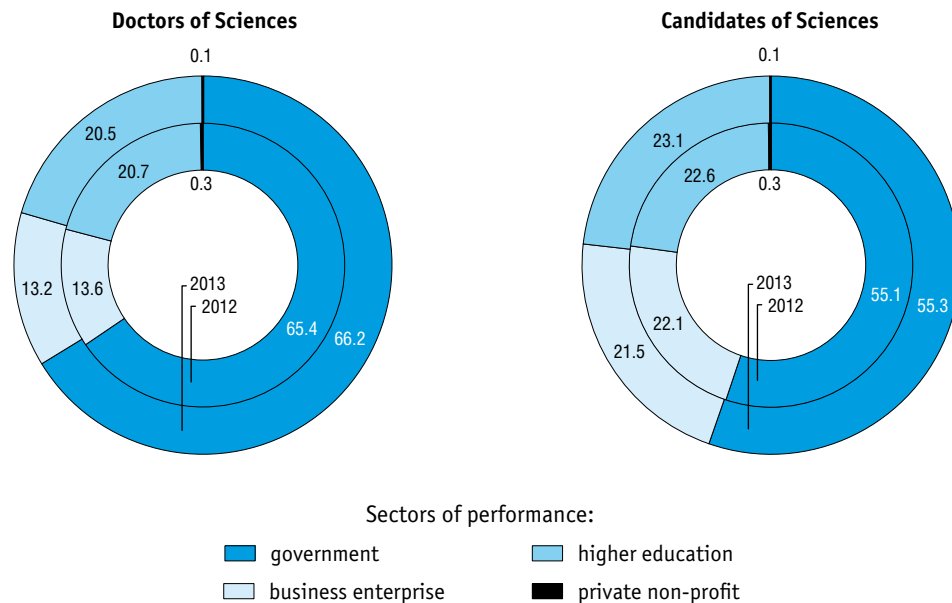
	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
R&D personnel					
2005	813207	272718	496706	43500	283
2010	736540	259007	423112	53290	1131
2011	735273	254896	419752	59454	1171
2012	726318	271466	394182	59469	1201
2013	727029	261869	405268	59247	645
University degrees					
2005	501718	177676	288649	35159	234
2010	493852	178026	268821	46112	893
2011	506330	176984	275431	52965	950
2012	508057	191193	263555	52334	975
2013	512017	187058	271434	52927	598
Other post-secondary degrees					
2005	134222	40495	89265	4430	32
2010	109158	36091	69552	3394	121
2011	103873	34687	66267	2811	108
2012	99503	35958	60764	2673	108
2013	97867	33629	61575	2625	38
Other degrees					
2005	177267	54547	118792	3911	17
2010	133530	44890	84739	3784	117
2011	125070	43225	78054	3678	113
2012	118758	44315	69863	4462	118
2013	117145	41182	72259	3695	9

5.1.5. RESEARCHERS WITH SCIENTIFIC DEGREES BY SECTOR OF PERFORMANCE

(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Researchers with scientific degrees	116465	105911	101806	99910	99428	99507	103725	101049	101275	105114	109493	109330	108248
Doctors of Sciences	19330	21949	22936	23102	23410	23880	25213	25140	25295	26789	27675	27784	27485
Candidates of Sciences	97135	83962	78870	76808	76018	75627	78512	75909	75980	78325	81818	81546	80763
Government sector	61062	58901	58774	58568	60066	60054	61707	60369	61309	61194	61605	63092	62837
Doctors of Sciences	13358	14987	15885	16031	16511	16766	17415	17326	17554	17646	17789	18181	18184
Candidates of Sciences	47704	43914	42889	42537	43555	43288	44292	43043	43755	43548	43816	44911	44653
Business enterprise sector	41207	34775	30507	29048	26661	25958	26257	24844	23861	23169	23045	21758	20955
Doctors of Sciences	4348	4806	4583	4511	4222	4108	4446	4284	4093	3987	4018	3767	3622
Candidates of Sciences	36859	29969	25924	24537	22439	21850	21811	20560	19768	19182	19027	17991	17333
Higher education sector	14162	12113	12432	12212	12618	13153	15330	15479	15774	20423	24502	24144	24306
Doctors of Sciences	1617	2120	2447	2538	2654	2924	3252	3439	3568	5068	5774	5753	5638
Candidates of Sciences	12545	9993	9985	9674	9964	10229	12078	12040	12206	15355	18728	18391	18668
Private non-profit sector	34	122	93	82	83	342	431	357	331	328	341	336	150
Doctors of Sciences	7	36	21	22	23	82	100	91	80	88	94	83	41
Candidates of Sciences	27	86	72	60	60	260	331	266	251	240	247	253	109

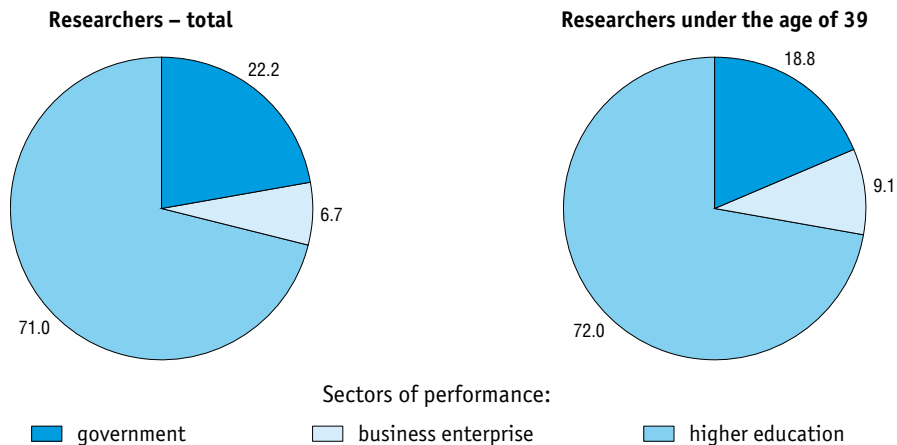
5.1.6. PERCENTAGE DISTRIBUTION OF RESEARCHERS WITH SCIENTIFIC DEGREES BY SECTOR OF PERFORMANCE



5.1.7. RESEARCHERS ASSIGNED TO INTERN OR WORK AT FOREIGN RESEARCH INSTITUTIONS BY SECTOR OF PERFORMANCE: 2013

	Total	Government sector	Business enterprise sector	Higher education sector
Institutions having assigned researchers to foreign research institutions	263	97	33	131
Researchers assigned to foreign research institutions for an internship or work, <i>headcount</i>	3051	677	205	2165
Of which those under the age of 39	1495	281	136	1077

5.1.8. PERCENTAGE DISTRIBUTION OF RESEARCHERS ASSIGNED TO INTERN OR WORK AT FOREIGN RESEARCH INSTITUTIONS BY SECTOR OF PERFORMANCE: 2013

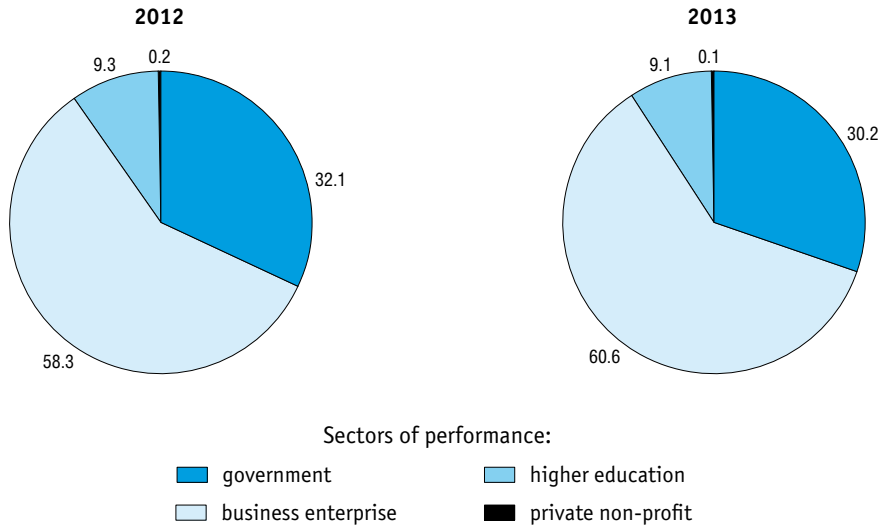


5.1.9. GROSS DOMESTIC EXPENDITURE ON R&D BY SECTOR OF PERFORMANCE

(thousand roubles, 1995 – million roubles)

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
At current prices											
Gross domestic expenditure on R&D	12149458.6	76697100.5	230785150.3	288805211.5	371080327.1	431073185.2	485834338.2	523377233.9	610426680.6	699869784.8	749797638.8
Government sector	3165439.4	18748588.2	60158166.6	77950634.9	107984917.2	129871228.3	147023165.7	161988411.4	182135309.9	224982089.2	226590120.7
Business enterprise sector	8323907.6	54288781.4	156880029.0	192484851.0	238386207.4	271206280.5	303051131.5	316701679.9	372088873.4	408284378.5	454409251.0
Higher education sector	657374.0	3489342.2	13337987.1	17639173.8	23471870.9	28868566.7	34642216.7	43714007.3	55134893.9	65334232.1	67858855.1
Private non-profit sector	2737.6	170388.7	408967.6	730551.8	1237331.6	1127109.7	1117824.3	973135.3	1067603.4	1269085.0	939412.0
At constant 1989 prices											
Gross domestic expenditure on R&D	2485.4	3321.2	4547.5	4939.9	5577.5	5490.8	6067.0	5723.2	5759.3	6148.3	6273.2
Government sector	647.6	811.9	1185.4	1333.3	1623.1	1654.3	1836.0	1771.4	1718.4	1976.4	1895.8
Business enterprise sector	1702.8	2350.9	3091.2	3292.4	3583.0	3454.5	3784.5	3463.2	3510.6	3586.7	3801.8
Higher education sector	134.5	151.1	262.8	301.7	352.8	367.7	432.6	478.0	520.2	574.0	567.7
Private non-profit sector	0.6	7.4	8.1	12.5	18.6	14.4	14.0	10.6	10.1	11.2	7.9

5.1.10. PERCENTAGE DISTRIBUTION OF GROSS DOMESTIC EXPENDITURE ON R&D BY SECTOR OF PERFORMANCE



5.1.11. GROSS DOMESTIC EXPENDITURE ON R&D BY SECTOR OF PERFORMANCE AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT

	Total	Government sector	Business enterprise sector	Higher education sector
1995	0.85	0.22	0.58	0.05
2000	1.05	0.26	0.74	0.05
2001	1.18	0.29	0.83	0.06
2002	1.25	0.31	0.87	0.07
2003	1.29	0.33	0.88	0.08
2004	1.15	0.29	0.80	0.06
2005	1.07	0.28	0.73	0.06
2006	1.07	0.29	0.72	0.07
2007	1.12	0.32	0.72	0.07
2008	1.04	0.31	0.66	0.07
2009	1.25	0.38	0.78	0.09
2010	1.13	0.35	0.68	0.09
2011	1.09	0.33	0.66	0.10
2012	1.13	0.36	0.66	0.11
2013	1.13	0.34	0.69	0.10

5.1.12. GROSS DOMESTIC EXPENDITURE ON R&D BY SECTOR OF PERFORMANCE AND SOURCE OF FUNDS

(thousand roubles)

	Total	Funds of the government sector*	Funds of the business enterprise sector	Funds of the higher education sector	Funds of the private non-profit sector	Funds from abroad
2011						
Gross domestic expenditure on R&D	610426680.6	409449448.8	168957596.6	4664465.3	1209661.5	26145508.4
Government sector	182135309.9	153529403.4	21528707.1	244802.6	61568.4	6770828.4
Business enterprise sector	372088873.4	218291814.8	134043614.4	376915.9	806970.4	18569557.9
Higher education sector	55134893.9	37047554.1	13224580.6	4030900.0	93584.3	738274.9
Private non-profit sector	1067603.4	580676.5	160694.5	11846.8	247538.4	66847.2
2012						
Gross domestic expenditure on R&D	699869784.8	474789779.0	190545904.2	5905489.1	877937.6	27750674.9
Government sector	224982089.2	186513895.7	29459319.3	197336.7	75635.7	8735901.8
Business enterprise sector	408284378.5	246761318.2	143181603.7	240986.2	152505.3	17947965.1
Higher education sector	65334232.1	40803297.5	17709405.2	5441235.5	371292.2	1009001.7
Private non-profit sector	1269085.0	711267.6	195576.0	25930.7	278504.4	57806.3

(continued)

	Total	Funds of the government sector*	Funds of the business enterprise sector	Funds of the higher education sector	Funds of the private non-profit sector	Funds from abroad
2013						
Gross domestic expenditure on R&D	749797638.8	507197614.5	211135955.9	7820677.9	896366.0	22747024.5
Government sector	226590120.7	186930366.9	31300159.7	175890.2	105228.8	8078475.1
Business enterprise sector	454409251.0	279358934.6	161100909.7	515567.0	88727.4	13345112.3
Higher education sector	67858855.1	40378679.8	18663427.9	7080091.0	448892.7	1287763.7
Private non-profit sector	939412.0	529633.2	71458.6	49129.7	253517.1	35673.4

* Including federal budget appropriations, general university funds and funds of government sector institutions (e.g. own funds of institutions).

5.1.13. GROSS DOMESTIC EXPENDITURE ON GRANTS AND COMPETITIVE RESEARCH FUNDING BY SECTOR OF PERFORMANCE

	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
Thousand roubles*					
Grants					
2011	14240100.9	5158842.5	3198334.7	5858977.3	23946.4
2012	19758073.7	10152902.5	1508997.6	8068571.6	27602.0
2013	32617935.0	17441740.0	5877986.3	9250997.0	47211.7
Competitive research funding					
2011	70441797.9	17099699.4	34297320.7	18984549.9	60227.9
2012	100108235.1	21883295.4	59013008.9	19172339.8	39591.0
2013	99182182.9	22147507.6	62585804.8	14431460.3	17410.2
Per cent					
Grants					
2011	100	36.2	22.5	41.1	0.2
2012	100	51.4	7.6	40.8	0.1
2013	100	53.5	18.0	28.4	0.1
Competitive research funding					
2011	100	24.3	48.7	27.0	0.1
2012	100	21.9	58.9	19.2	0.04
2013	100	22.3	63.1	14.6	0.02

* Of the gross domestic expenditure on R&D.

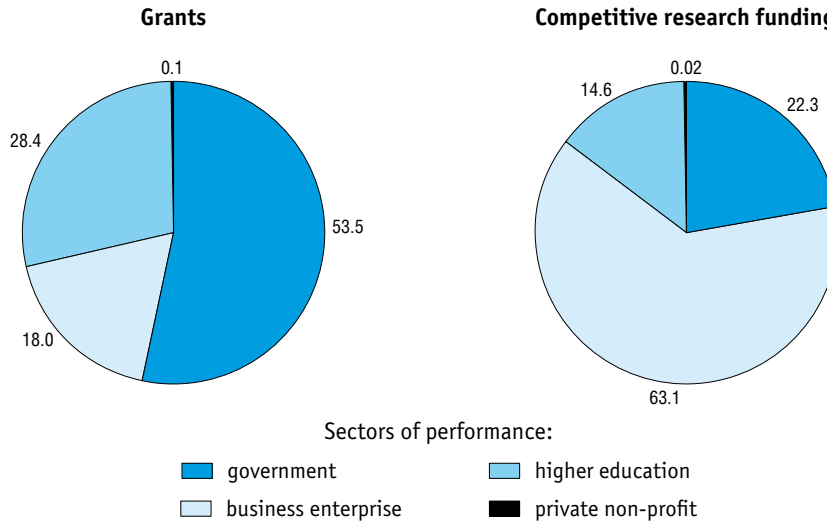
5.1.14. SOURCES OF FUNDS FOR GRANTS AND COMPETITIVE RESEARCH FUNDING BY SECTOR OF PERFORMANCE: 2013*

(thousand roubles)

	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
Grants	32617935.0	17441740.0	5877986.3	9250997.0	47211.7
Financed from:					
budgets of all levels, of which	27539546.3	16076174.1	3807599.8	7636685.2	19087.2
federal	26088632.8	15203658.4	3790847.6	7075961.6	18165.2
provincial and municipal budgets of the Russian Federation	1450913.5	872515.7	16752.2	560723.6	922.0
other sources	5078388.7	1365565.9	2070386.5	1614311.8	28124.5
Competitive research funding	99182182.9	22147507.6	62585804.8	14431460.3	17410.2
Financed from:					
budgets of all levels, of which	91162278.5	21077380.0	58266584.8	11815178.3	3135.4
federal	89128089.5	20813108.2	57505870.4	10805975.5	3135.4
provincial and municipal budgets of the Russian Federation	2034189.0	264271.8	760714.4	1009202.8	–
other sources	8019904.4	1070127.6	4319220.0	2616282.0	14274.8

* Of the gross domestic expenditure on R&D.

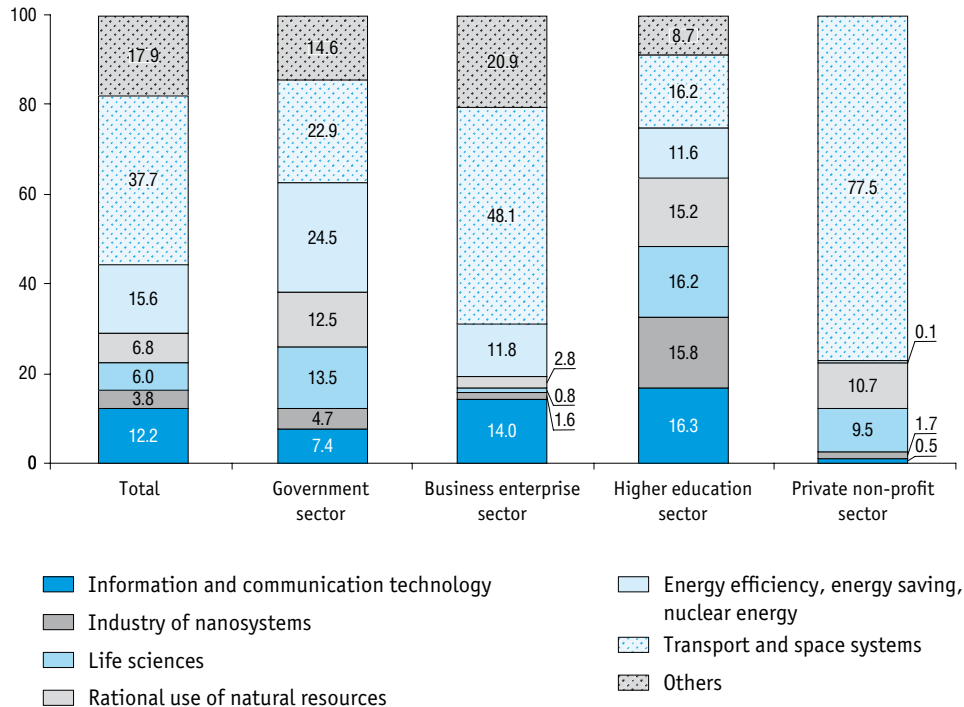
5.1.15. PERCENTAGE DISTRIBUTION OF GRANTS AND COMPETITIVE RESEARCH FUNDING BY SECTOR OF PERFORMANCE: 2013



5.1.16. GROSS DOMESTIC EXPENDITURE ON R&D BY PRIORITY S&T AREA AND SECTOR OF PERFORMANCE: 2013
(thousand roubles)

	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
Gross domestic expenditure on R&D by priority S&T area	491274734.4	145378865.6	301146976.8	44384547.6	364344.4
Information and communication technology	60031730.3	10715345.0	42062905.5	7251563.8	1916.0
Industry of nanosystems	18708158.2	6766589.7	4917509.9	7018008.6	6050.0
Life sciences	29366068.5	19659021.6	2493069.3	7179219.9	34757.7
Rational use of natural resources	33309192.4	18168375.6	8353024.9	6748886.0	38905.9
Energy efficiency, energy saving, nuclear energy	76417070.9	35594679.3	35679573.2	5142437.2	381.2
Transport and space systems	185397623.1	33226778.4	144716084.6	7172426.5	282333.6

5.1.17. PERCENTAGE DISTRIBUTION OF GROSS DOMESTIC EXPENDITURE ON R&D BY PRIORITY S&T AREA AND SECTOR OF PERFORMANCE: 2013

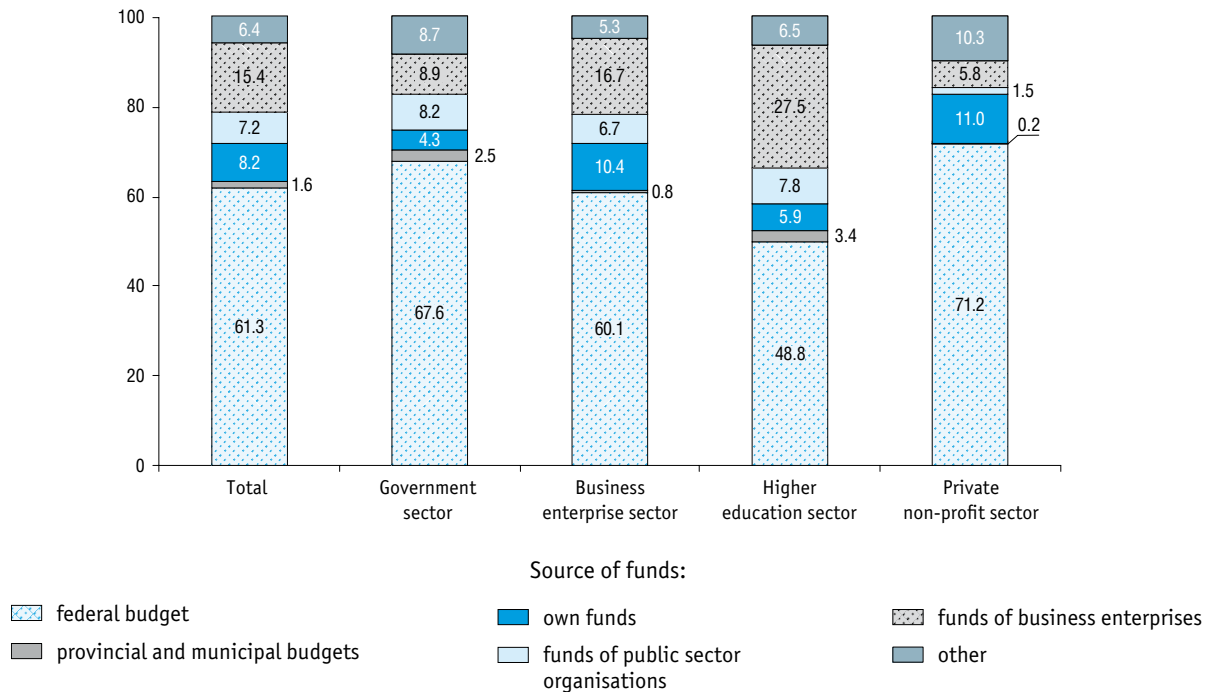


5.1.18. SOURCES OF FUNDS FOR GROSS DOMESTIC EXPENDITURE ON R&D BY PRIORITY S&T AREA AND SECTOR OF PERFORMANCE: 2013

(thousand roubles)

	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
Gross domestic expenditure on R&D by priority S&T area	491274734.4	145378865.6	301146976.8	44384547.6	364344.4
Financed from:					
budgets of all levels	308733034.3	101784306.3	183487195.0	23201528.4	260004.6
of which federal	301087432.2	98208034.4	180940157.1	21679901.0	259339.7
own funds	40159360.3	6245824.7	31241486.6	2632063.7	39985.3
funds of public sector organisations	35510072.3	11855135.8	20199516.0	3449909.8	5510.7
funds of business enterprises	75489555.3	12873721.4	50388751.1	12205812.1	21270.7
other sources	31382712.2	12619877.4	15830028.1	2895233.6	37573.1

5.1.19. PERCENTAGE DISTRIBUTION OF GROSS DOMESTIC EXPENDITURE ON R&D BY PRIORITY S&T AREA AND SOURCE OF FUNDS: 2013



5.1.20. GROSS DOMESTIC EXPENDITURE ON R&D BY SECTOR OF PERFORMANCE AND SOCIO-ECONOMIC OBJECTIVE
(thousand roubles)

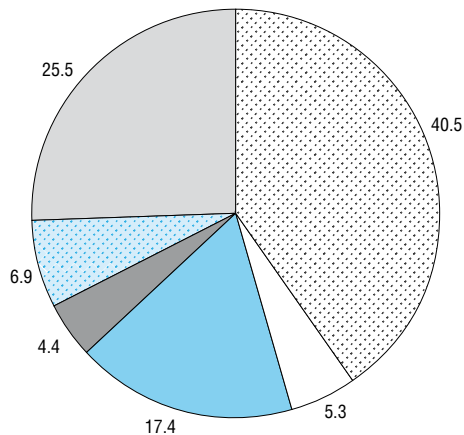
	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
2010					
Gross domestic expenditure on R&D	523377233.9	161988411.4	316701679.9	43714007.3	973135.3
Economic development	183113782.3	27363386.8	137277406.4	18388324.5	84664.6
Social objectives	24966176.4	15678573.3	3428751.4	5715218.0	143633.7
General advancement of research	104294714.1	60344393.8	29350303.3	14265983.6	334033.4
Exploration and exploitation of the Earth and atmosphere	19821817.2	10992645.7	7298359.0	1425201.8	105610.7
Civil space	27503697.9	7745311.8	18981106.6	763424.2	13855.3
Other	163677046.0	39864100.0	120365753.2	3155855.2	291337.6
2011					
Gross domestic expenditure on R&D	610426680.6	182135309.9	372088873.4	55134893.9	1067603.4
Economic development	231941668.2	37298989.6	169331843.7	25175184.0	135650.9
Social objectives	29640390.9	18275876.7	4224886.0	7012531.8	127096.4
General advancement of research	111947458.3	67584899.6	26713553.5	17227621.4	421383.8
Exploration and exploitation of the Earth and atmosphere	20390660.8	12525500.2	5824163.0	1932518.8	108478.8
Civil space	35752455.2	9370439.0	25516406.5	849056.0	16553.7
Other	180754047.2	37079604.8	140478020.7	2937981.9	258439.8

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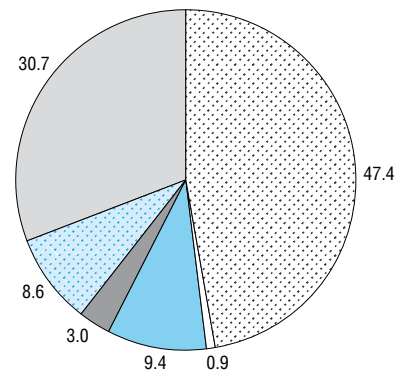
	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
		2012			
Gross domestic expenditure on R&D	699869784.8	224982089.2	408284378.5	65334232.1	1269085.0
Economic development	295901906.0	55032357.1	212179260.2	28615008.6	75280.1
Social objectives	33070785.7	19656464.9	5033592.1	8289720.7	91008.0
General advancement of research	117873370.5	67230975.7	28688459.8	21318775.7	635159.3
Exploration and exploitation of the Earth and atmosphere	25474648.5	15629075.7	7772629.1	1957383.8	115559.9
Civil space	37558965.0	10910796.0	25723269.3	901131.6	23768.1
Other	189990109.1	56522419.8	128887168.0	4252211.7	328309.6
		2013			
Gross domestic expenditure on R&D	749797638.8	226590120.7	454409251.0	67858855.1	939412.0
Economic development	303849005.2	57707206.0	215317955.6	30734547.3	89296.3
Social objectives	39876895.8	22956650.4	4021637.0	12783813.4	114795.0
General advancement of research	130695141.4	69352465.7	42790745.8	18121418.8	430511.1
Exploration and exploitation of the Earth and atmosphere	32889936.2	17181592.3	13663338.5	2011482.9	33522.5
Civil space	51558366.4	11237808.4	39084006.0	1207010.5	29541.5
Other	190928293.8	48154397.9	139531568.1	3000582.2	241745.6







**5.1.21. PERCENTAGE DISTRIBUTION OF GROSS DOMESTIC EXPENDITURE ON R&D
BY SECTOR OF PERFORMANCE AND SOCIO-ECONOMIC OBJECTIVE: 2013**

**Total –
749 797.6 million roubles**



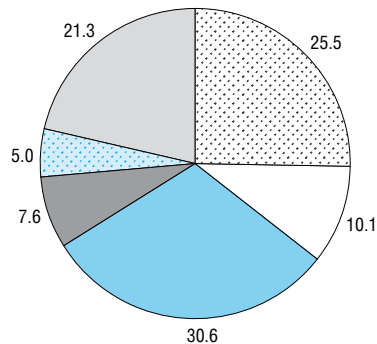
**Business enterprise sector –
454 409.3 million roubles**



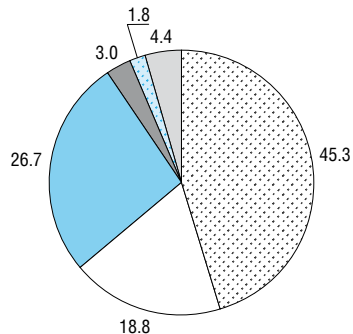
- | | |
|---|--|
|  Economic development |  Exploration and exploitation of the Earth and atmosphere |
|  Social objectives |  Civil space |
|  General advancement of research |  Other |

(continued)

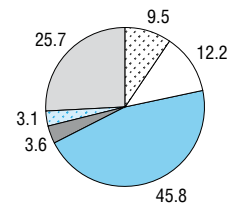
**Government sector –
226 590.1 million roubles**



**Business enterprise sector –
67 858.9 million roubles**



**Private non-profit sector –
939.4 million roubles**



- Economic development
- Social objectives
- General advancement of research
- Exploration and exploitation of the Earth and atmosphere
- Civil space
- Other

5.1.22. INTRAMURAL CURRENT EXPENDITURE ON R&D BY SECTOR OF PERFORMANCE AND TYPE OF ACTIVITY

(thousand roubles)

	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
Intramural current expenditure on R&D					
2005	221119537.6	56342327.7	151228693.6	13144292.5	404223.8
2010	489450798.7	151825126.6	294103827.7	42552245.4	969599.0
2011	568386749.7	170811017.0	343121369.6	53389079.3	1065283.8
2012	655061743.4	210559632.9	380968190.9	62268471.4	1265448.2
2013	699948879.0	213468794.6	420438999.3	65103832.7	937252.4
Basic research					
2005	31022855.8	24586195.8	2591506.7	3841327.6	3825.7
2010	95881364.3	65041375.9	16935403.4	13647906.8	256678.2
2011	106923986.6	74527944.1	15100475.9	16943421.4	352145.2
2012	108160904.7	78699812.7	11034975.2	18092897.7	333219.1
2013	114829117.8	86128282.9	10319086.1	18292483.8	89265.0
Applied research					
2005	36360266.9	10603039.3	20026408.8	5405410.3	325408.5
2010	92010677.2	30948555.6	42872394.0	17804762.0	384965.6
2011	113096800.2	35457277.1	53220149.5	24053848.5	365525.1
2012	129304402.1	50128152.6	50351025.6	28324950.6	500273.3
2013	133787976.7	49843105.3	52414718.7	31034270.9	495881.8
Development					
2005	153736414.9	21153092.6	128610778.1	3897554.6	74989.6
2010	301558757.2	55835195.1	234296030.3	11099576.6	327955.2
2011	348365962.9	60825795.8	274800744.2	12391809.4	347613.5
2012	417596436.6	81731667.6	319582190.1	15850623.1	431955.8
2013	451331784.5	77497406.4	357705194.5	15777078.0	352105.6

5.1.23. AVERAGE MONTHLY SALARY OF R&D PERSONNEL BY SECTOR OF PERFORMANCE

(roubles, before 1998 – thousand roubles)

	Total	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
1995	305.3	330.5	297.6	280.1	164.2
1996	550.9	555.5	557.1	441.4	587.5
1997	746.5	790.1	740.8	575.2	572.8
1998	836.0	814.2	861.3	624.9	581.0
1999	1432.6	1355.2	1491.1	1098.7	930.2
2000	2322.9	2015.6	2519.9	1400.3	1836.1
2001	3348.9	2870.5	3630.1	2383.8	2619.8
2002	4552.1	3970.4	4893.6	3476.9	4770.2
2003	5712.8	4969.6	6124.3	4749.1	5654.7
2004	6918.4	5958.7	7525.0	5088.8	6575.0
2005	8672.0	7220.9	9599.6	7042.0	5767.4
2006	10840.9	9678.8	11744.8	8348.7	9409.1
2007	14683.4	14208.3	15203.6	12233.1	13237.3
2008	19263.3	19561.0	19345.3	16812.7	21161.2
2009	22104.3	22979.7	21674.1	21191.5	24253.8
2010	25043.5	24792.1	25359.7	23716.4	24438.5
2011	28387.5	27869.4	29174.9	24963.9	25956.5
2012	32539.9	32031.0	33165.2	30915.1	25983.7
2013	35618.8	34523.8	36540.8	34101.0	27979.8

5.2. Government Sector

5.2.1. R&D INSTITUTIONS IN THE GOVERNMENT SECTOR BY TYPE

	2005	2007	2008	2009	2010	2011	2012	2013
Total	1282	1483	1429	1406	1400	1457	1465	1495
Research institutes	1145	1153	1128	1126	1124	1109	1114	1144
Design organisations	62	94	73	60	61	65	64	56
Construction project and exploration organisations	6	4	5	5	5	6	6	7
Experimental enterprises	14	40	37	35	30	33	37	43
Others	55	192	186	180	180	244	244	245

5.2.2. R&D PERSONNEL IN THE GOVERNMENT SECTOR BY TYPE OF INSTITUTIONS

(headcount)

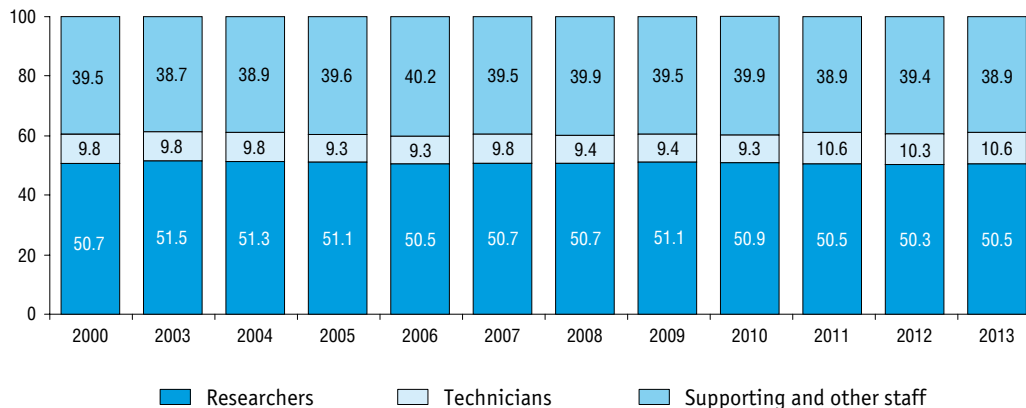
	2005	2007	2008	2009	2010	2011	2012	2013
Total	272718	272255	260854	260360	259007	254896	271466	261869
Research institutes	248214	232732	223190	223922	222613	219220	232655	225798
Design organisations	21499	29725	27021	26507	26473	23290	26084	22979
Construction project and exploration organisations	159	1405	1442	1418	1419	1390	1370	1156
Experimental enterprises	367	873	694	648	631	957	1375	1762
Others	2479	7520	8507	7865	7871	10039	9982	10174

5.2.3. R&D PERSONNEL IN THE GOVERNMENT SECTOR BY OCCUPATION

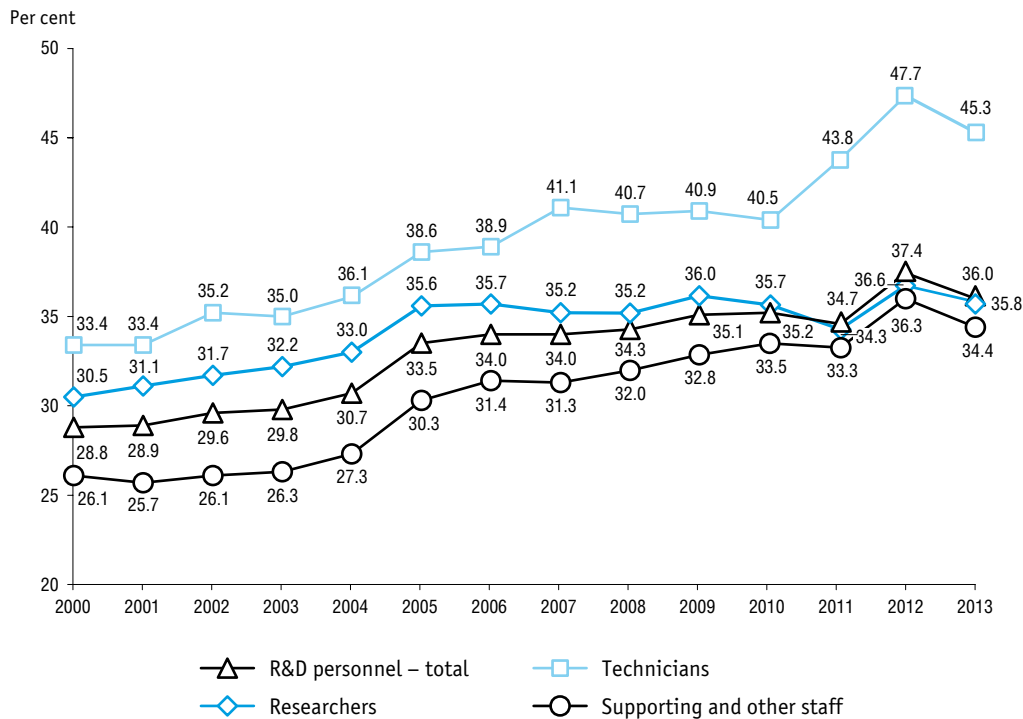
(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	282166	255850	256098	258078	272718	274802	272255	260854	260360	259007	254896	271466	261869
Researchers	146342	129725	131906	132350	139378	138728	138169	132261	132955	131734	128672	136442	132117
Technicians	27178	25085	25083	25223	25462	25667	26545	24531	24554	24009	26960	28094	27777
Supporting staff	66226	59706	55782	57057	61448	62482	61031	58591	56846	56530	54176	60067	56795
Others	42420	41334	43327	43448	46430	47925	46510	45471	46005	46734	45088	46863	45180

5.2.4. PERCENTAGE DISTRIBUTION OF R&D PERSONNEL IN THE GOVERNMENT SECTOR BY OCCUPATION



5.2.5. SHARE OF THE GOVERNMENT SECTOR IN R&D PERSONNEL TOTAL BY OCCUPATION



5.2.6. R&D PERSONNEL IN THE GOVERNMENT SECTOR BY EDUCATIONAL ATTAINMENT

(headcount)

	Total	University degrees	Other post-secondary degrees	Other degrees
R&D personnel				
2005	272718	177676	40495	54547
2009	260360	177254	37439	45667
2010	259007	178026	36091	44890
2011	254896	176984	34687	43225
2012	271466	191193	35958	44315
2013	261869	187058	33629	41182
Researchers				
2005	139378	139378	–	–
2009	132955	132955	–	–
2010	131734	131734	–	–
2011	128672	128672	–	–
2012	136442	136442	–	–
2013	132117	132117	–	–
Technicians				
2005	25462	7802	12177	5483
2009	24554	8633	10889	5032
2010	24009	9110	10155	4744
2011	26960	10736	10629	5595
2012	28094	11957	10841	5296
2013	27777	12669	9747	5361

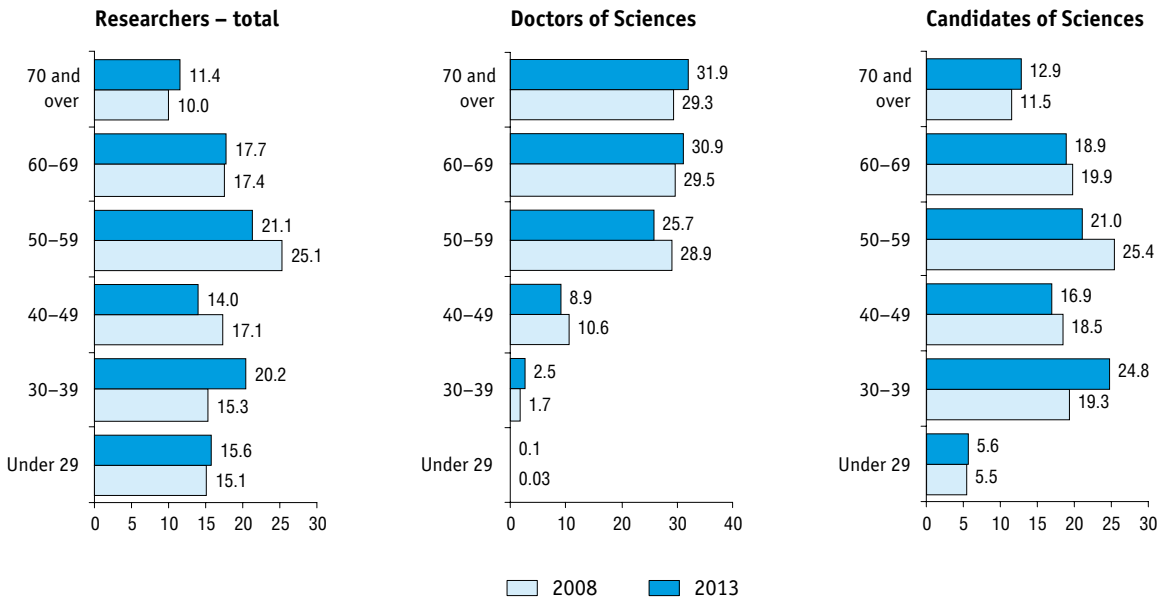
(continued)

	Total	University degrees	Other post-secondary degrees	Other degrees
Supporting staff				
2005	61448	19119	15834	26495
2009	56846	21472	14633	20741
2010	56530	21762	14287	20481
2011	54176	21669	12916	19591
2012	60067	24637	13977	21453
2013	56795	24082	13110	19603
Others				
2005	46430	11377	12484	22569
2009	46005	14194	11917	19894
2010	46734	15420	11649	19665
2011	45088	15907	11142	18039
2012	46863	18157	11140	17566
2013	45180	18190	10772	16218

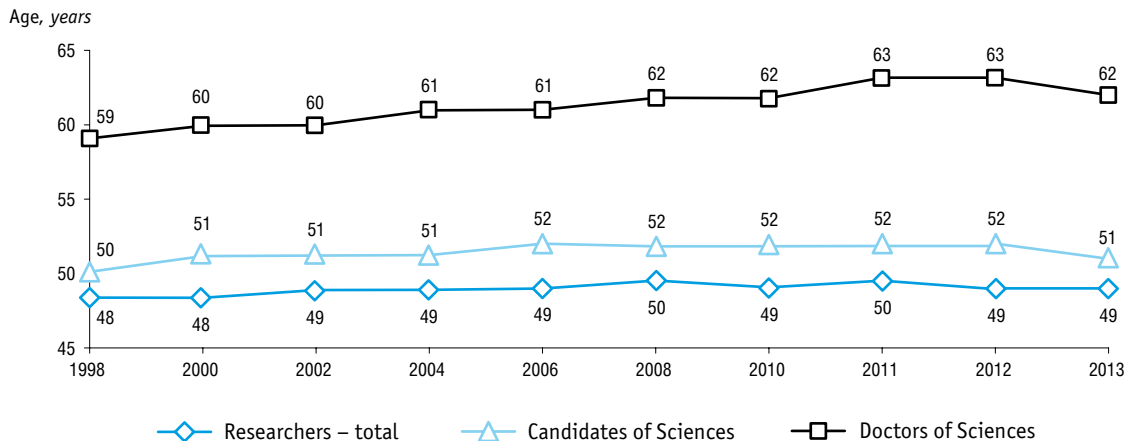
5.2.7. RESEARCHERS IN THE GOVERNMENT SECTOR BY GENDER AND AGE GROUP (headcount)

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Total	132261	17326	43043	132117	18184	44653
Age, years:						
under 29	19971	5	2348	20626	20	2486
30–39	20242	289	8296	26724	450	11066
40–49	22644	1838	7969	18510	1626	7529
50–54	16357	2194	5445	13440	1945	4574
55–59	16849	2821	5492	14381	2729	4814
60–69	23031	5106	8553	23400	5617	8447
70 and over	13167	5073	4940	15036	5797	5737
Male	72653	13078	23696	73677	13377	24188
Age, years:						
under 29	11530	2	1354	11883	19	1455
30–39	9970	209	4091	14165	312	5655
40–49	10894	1307	3946	9030	1082	3505
50–54	8373	1583	2966	6787	1318	2414
55–59	9183	2073	3229	7923	1915	2713
60–69	13688	4001	4974	13963	4227	5023
70 and over	9015	3903	3136	9926	4504	3423
Female	59608	4248	19347	58440	4807	20465
Age, years:						
under 29	8441	3	994	8743	1	1031
30–39	10272	80	4205	12559	138	5411
40–49	11750	531	4023	9480	544	4024
50–54	7984	611	2479	6653	627	2160
55–59	7666	748	2263	6458	814	2101
60–69	9343	1105	3579	9437	1390	3424
70 and over	4152	1170	1804	5110	1293	2314

5.2.8. PERCENTAGE DISTRIBUTION OF RESEARCHERS IN THE GOVERNMENT SECTOR BY AGE GROUP



5.2.9. AVERAGE AGE OF RESEARCHERS IN THE GOVERNMENT SECTOR

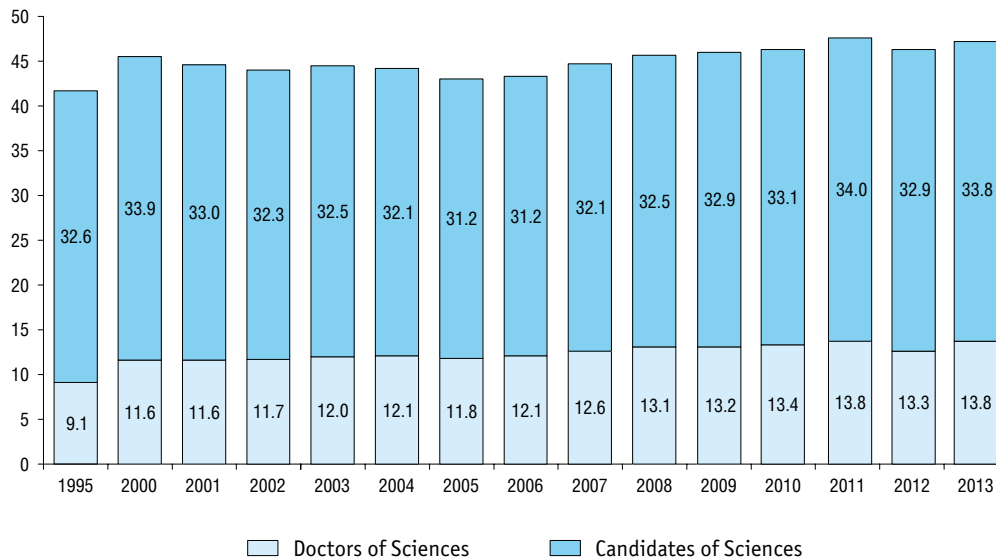


5.2.10. RESEARCHERS WITH SCIENTIFIC DEGREES IN THE GOVERNMENT SECTOR

(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Researchers with scientific degrees	61062	58901	58774	58568	60066	60054	61707	60369	61309	61194	61605	63092	62837
Doctors of Sciences	13358	14987	15885	16031	16511	16766	17415	17326	17554	17646	17789	18181	18184
Candidates of Sciences	47704	43914	42889	42537	43555	43288	44292	43043	43755	43548	43816	44911	44653

5.2.11. RESEARCHERS WITH SCIENTIFIC DEGREES AS A PERCENTAGE OF THE TOTAL NUMBER OF RESEARCHERS IN THE GOVERNMENT SECTOR



5.2.12. RESEARCHERS IN THE GOVERNMENT SECTOR BY FIELD OF SCIENCE AND TECHNOLOGY

(headcount)

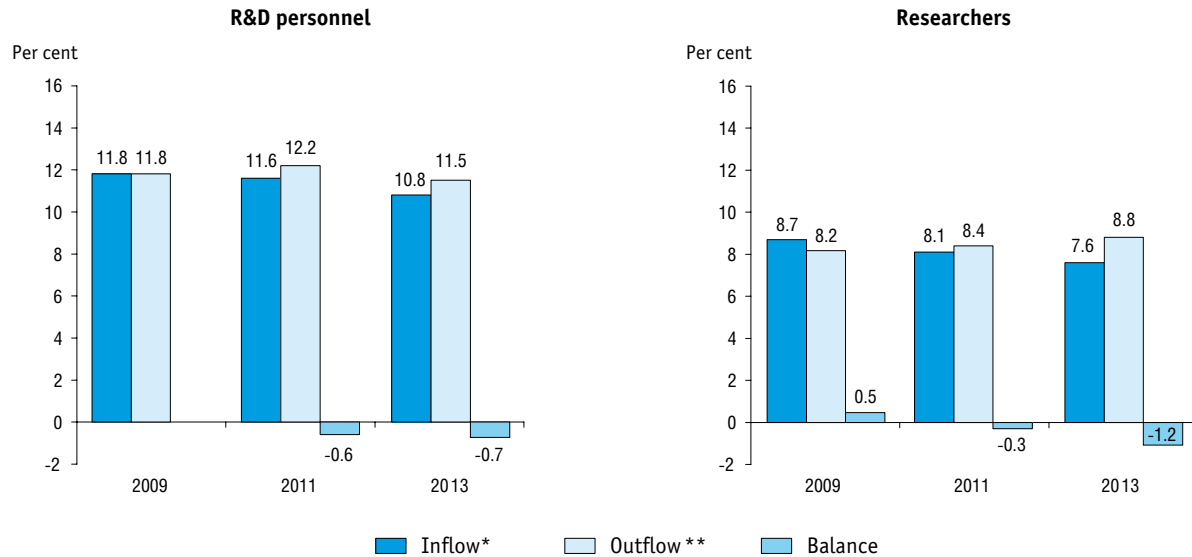
	2008			2011			2012			2013		
	Researchers	Of whom		Researchers	Of whom		Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Total	132261	17326	43043	128672	17789	43816	136442	18181	44911	132117	18184	44653
Natural sciences	52719	8525	21841	53140	8842	22627	54634	9006	23125	53195	8920	22899
Engineering	44097	1740	6204	39755	1632	5797	45820	1704	6040	42914	1750	6084
Medical sciences	12918	3320	5921	12992	3514	5930	12816	3423	5800	13363	3521	6163
Agricultural sciences	10285	1225	3930	9663	1202	3779	9800	1341	3948	9898	1292	3820
Social sciences	5456	935	2251	6224	1109	2754	6284	1162	2889	6158	1188	2763
Humanities	6786	1581	2896	6898	1490	2929	7088	1545	3109	6589	1513	2924

5.2.13. FLOWS OF R&D PERSONNEL IN THE GOVERNMENT SECTOR BY OCCUPATION

(headcount)

	Number at the beginning of the reference year	Inflow				Outflow				Number at the end of the reference year
		Total	Of whom			Total	Of which			
			graduates from higher education institutions	from other research institutes	others		voluntary turnover	due to staff reduction	for other reasons	
Total										
2005	275249	32634	3990	5456	23188	35165	24924	851	9390	272718
2009	260231	30799	3665	4587	22547	30670	18822	1696	10152	260360
2011	256637	29523	3152	4193	22178	31264	20567	1115	9582	254896
2013	264121	28184	2650	3461	22073	30436	20179	642	9615	261869
Researchers										
2005	139746	11715	3127	3121	5467	12087	8871	358	2858	139378
2009	132328	11519	2636	2434	6449	10898	6943	629	3326	132955
2011	129871	10428	2192	2337	5899	10944	7072	335	3537	128717
2013	133682	10035	1894	2211	5930	11819	8172	277	3370	132117
Technicians										
2005	25569	4128	336	630	3162	4227	2892	83	1252	25462
2009	24279	3872	335	412	3125	3581	1931	214	1436	24554
2011	24540	4424	363	220	3841	4484	2717	146	1621	26960
2013	28152	4034	349	292	3393	4371	2696	55	1620	27777
Supporting and other staff										
2005	109934	16791	527	1705	14555	18851	13161	410	5280	107878
2009	103624	15408	694	1741	12973	16191	9948	853	5390	102851
2011	102226	14671	597	1636	12438	15836	10778	634	4424	99219
2013	102287	14115	407	958	12750	14246	9311	310	4625	101975

5.2.14. INFLOW AND OUTFLOW OF R&D PERSONNEL IN THE GOVERNMENT SECTOR

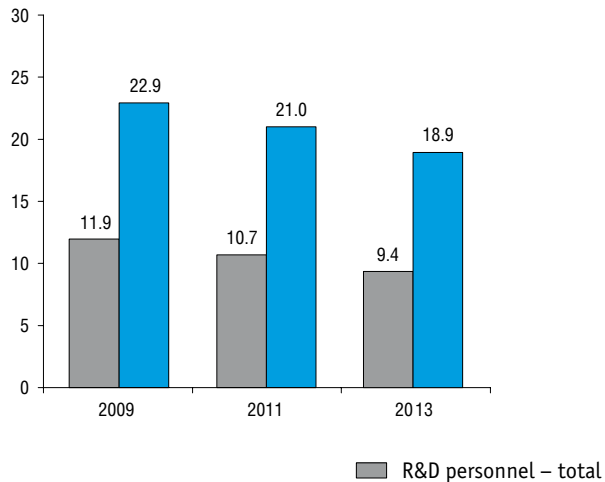


* The ratio of the R&D personnel admitted during the year to the number of employees at the end of the year.

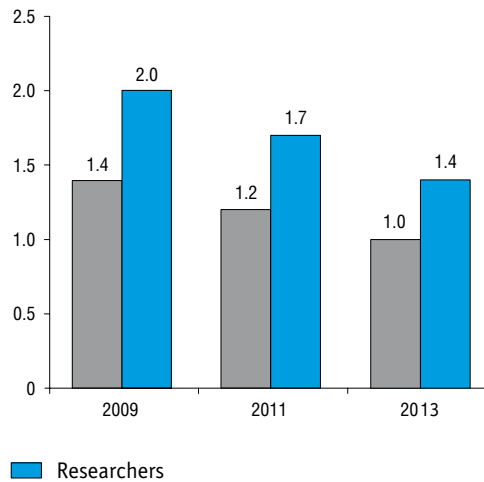
** The ratio of the R&D personnel having resigned during the year to the number of employees at the beginning of the year.

5.2.15. INFLOW OF HIGHER EDUCATION GRADUATES TO R&D INSTITUTIONS IN THE GOVERNMENT SECTOR

Higher education graduates as a percentage of the inflow to R&D institutions



Higher education graduates as a percentage of R&D personnel*

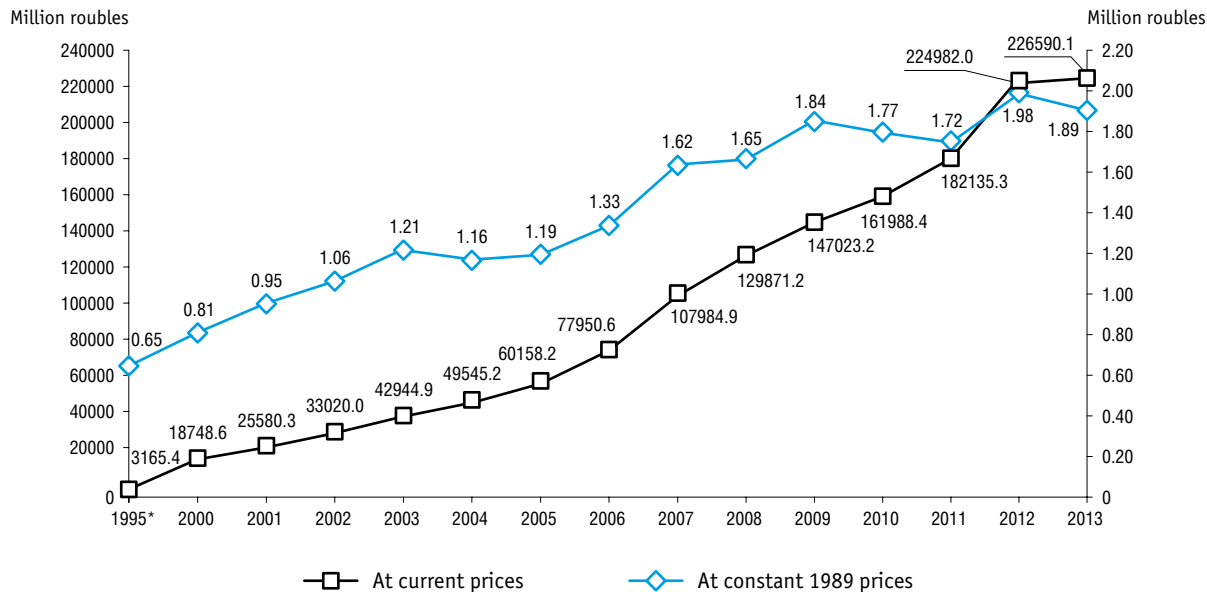


* The ratio of the higher education graduates admitted during the year to the number of employees at the end of the year.

5.2.16. GROSS DOMESTIC EXPENDITURE ON R&D IN THE GOVERNMENT SECTOR BY TYPE OF INSTITUTIONS
(thousand roubles)

	2005	2008	2009	2010	2011	2012	2013
Total	60158166.6	129871228.3	147023165.7	161988411.4	182135309.9	224982089.2	226590120.7
Research institutes	55762222.6	111905020.4	126002650.1	136870186.3	151261078.9	190774482.9	191023430.1
Design organisations	4007361.7	13446090.0	16426476.1	20163653.6	23348735.0	24722611.1	25707283.0
Construction project and exploration organisations	21993.6	381522.5	490398.7	524208.6	551628.3	561026.1	433811.9
Experimental enterprises	20300.0	136641.7	159660.0	139733.5	528561.1	970655.0	1076831.6
Others	346288.7	4001953.7	3943980.8	4290629.4	6445306.6	7953314.1	8348764.1

5.2.17. GROSS DOMESTIC EXPENDITURE ON R&D IN THE GOVERNMENT SECTOR



* Billion roubles.

5.2.18. GROSS DOMESTIC EXPENDITURE ON R&D IN THE GOVERNMENT SECTOR BY SOURCE OF FUNDS

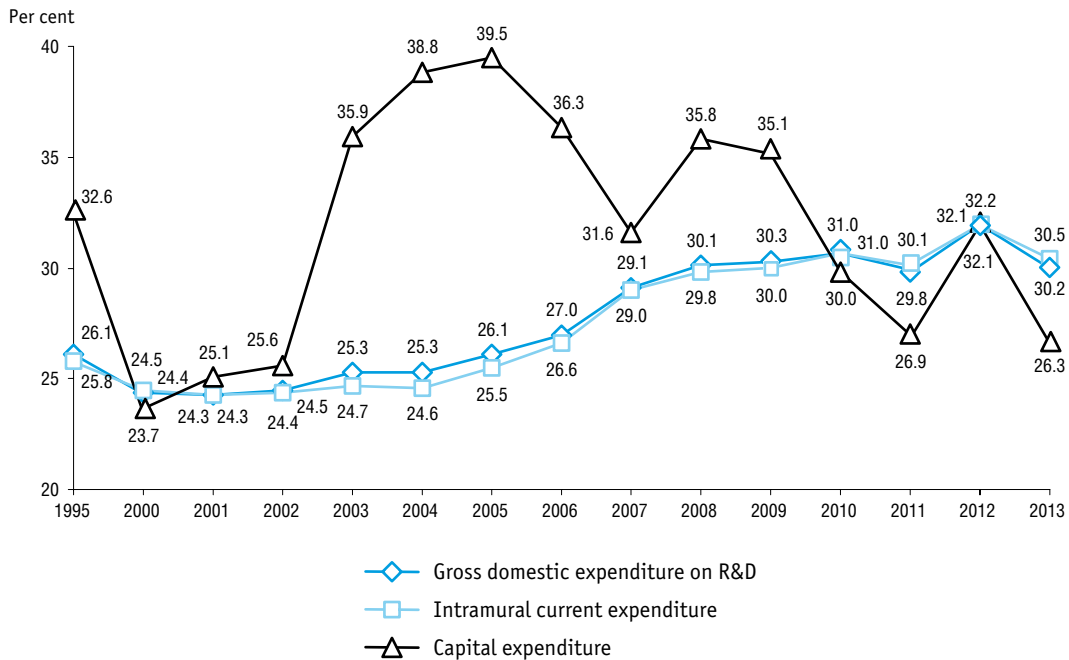
	Total	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
At current prices, thousand roubles, 1995 – million roubles						
1995	3165439.4	2779222.3	255799.4	2313.0	821.0	127283.7
2000	18748588.2	15060439.1	2028296.2	11323.4	3898.5	1644631.0
2001	25580299.1	20398017.0	3166813.9	16458.8	8180.4	1990829.0
2002	33020017.4	26539969.2	4019173.2	16110.2	49374.0	2395390.8
2003	42944862.9	34808445.2	4925941.0	23854.9	22789.9	3163831.9
2004	49545237.7	40562960.9	6491792.8	47839.9	10698.3	2431945.8
2005	60158166.6	50589802.5	6845507.2	46912.8	21976.9	2653967.2
2006	77950634.9	65449102.1	9136754.4	111817.6	52071.9	3200888.9
2007	107984917.2	85896140.4	14355790.2	80481.6	12412.3	7640092.7
2008	129871228.3	108231726.8	16119227.3	183124.2	120667.0	5216483.0
2009	147023165.7	124027349.4	16292839.6	90578.1	38990.4	6573408.2
2010	161988411.4	134275595.6	20873979.0	205154.5	73117.4	6560564.9
2011	182135309.9	153529403.4	21528707.1	244802.6	61568.4	6770828.4
2012	224982089.2	186513895.7	29459319.3	197336.7	75635.7	8735901.8
2013	226590120.7	186895055.8	31300159.7	211201.3	105228.8	8078475.1

* Including federal budget appropriations, own funds and funds of government sector institutions.

(continued)

	Total	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
	Per cent					
1995	100	87.8	8.1	0.07	0.03	4.0
2000	100	80.3	10.8	0.06	0.02	8.8
2001	100	79.7	12.4	0.06	0.03	7.8
2002	100	80.4	12.2	0.05	0.1	7.3
2003	100	81.1	11.5	0.06	0.05	7.4
2004	100	81.9	13.1	0.1	0.02	4.9
2005	100	84.1	11.4	0.08	0.04	4.4
2006	100	84.0	11.7	0.1	0.07	4.1
2007	100	79.5	13.3	0.07	0.01	7.1
2008	100	83.3	12.4	0.1	0.09	4.0
2009	100	84.4	11.1	0.06	0.03	4.5
2010	100	82.9	12.9	0.1	0.05	4.1
2011	100	84.3	11.8	0.1	0.03	3.7
2012	100	82.9	13.1	0.09	0.03	3.9
2013	100	82.5	13.8	0.09	0.05	3.6

5.2.19. SHARE OF THE GOVERNMENT SECTOR IN GROSS DOMESTIC EXPENDITURE ON R&D BY TYPE OF COSTS



5.2.20. GROSS DOMESTIC EXPENDITURE ON R&D IN THE GOVERNMENT SECTOR BY TYPE OF COSTS

(thousand roubles)

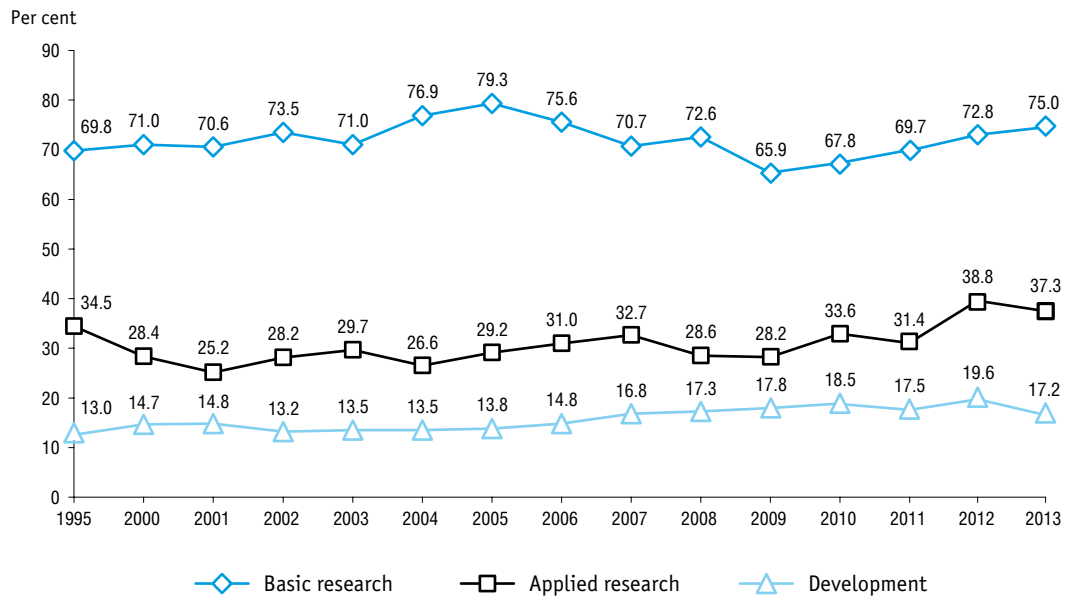
	2005	2008	2009	2010	2011	2012	2013
Gross domestic expenditure on R&D	60158166.6	129871228.3	147023165.7	161988411.4	182135309.9	224982089.2	226590120.7
Intramural current expenditure	56342327.7	122630304.7	138303922.9	151825126.6	170811017.0	210559632.9	213468794.6
Salaries	25406848.5	64641064.4	75166755.2	80849201.5	89553195.8	108036774.5	112439789.3
Of which for R&D personnel*	23066423.6	59514756.7	68956969.5	73752076.2	81321475.8	98720480.9	102744281.9
Social security payments	6257309.9	13683355.2	15270378.1	16436614.4	23348352.4	27038528.7	2923058.9
Equipment	3086873.3	5189920.0	5801943.7	5458681.5	5276489.5	8154615.9	6600021.2
Fixed assets	2072960.4	3559638.2	3834297.9	3241305.1	3403968.6	3680467.8	3659807.9
Other material costs	9781232.9	17531022.6	20128759.2	22464861.8	25352173.1	33170617.4	32362326.9
Other current costs	11810063.1	21584942.5	21936086.7	26615767.4	27280806.2	34159096.4	32836118.3
Capital expenditure	3815838.9	7240923.6	8719242.8	10163284.8	11324292.9	14422456.3	13121326.1
Land and buildings	399698.5	670481.4	802555.6	3113137.6	2285830.0	2579811.6	2467555.2
Equipment	2485274.0	4803223.1	5164006.4	4647644.5	5963907.8	8948846.1	7352490.4
Other capital expenditure	930866.4	1767219.1	2752680.8	2402502.7	3074555.1	2893798.6	3301280.5

* Excluding those employed on a plural basis and on contracts.

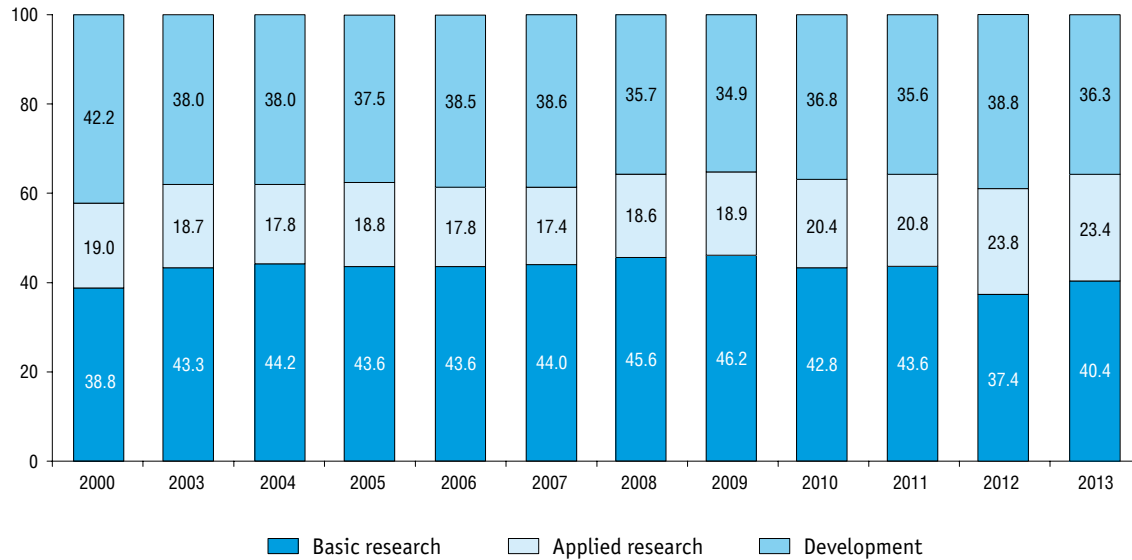
**5.2.21. INTRAMURAL CURRENT EXPENDITURE ON R&D IN THE GOVERNMENT SECTOR BY TYPE OF ACTIVITY
AND FIELD OF SCIENCE AND TECHNOLOGY**
(thousand roubles)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
2005							
Intramural current expenditure on R&D	56342327.7	20577533.0	25509704.3	3738833.2	2939051.4	1951167.1	1626038.7
Basic research	24586195.8	15976354.8	2622298.0	1662238.3	1678543.7	1333808.2	1312952.8
Applied research	10603039.3	2644812.7	4734050.4	1703960.2	840824.2	475142.3	204249.5
Development	21153092.6	1956365.5	18153355.9	372634.7	419683.5	142216.6	108836.4
2010							
Intramural current expenditure on R&D	151825126.6	56889173.8	65431955.8	12635358.1	6868458.0	4815854.6	5184326.3
Basic research	65041375.9	38927125.1	8471457.1	5340161.8	4177771.0	3645798.9	4479062.0
Applied research	30948555.6	13265692.5	7766540.0	6615628.6	1773878.6	936306.6	590509.3
Development	55835195.1	4696356.2	49193958.7	679567.7	916808.4	233749.1	114755.0
2011							
Intramural current expenditure on R&D	170811017.0	64225127.6	72553560.4	14858903.1	7944816.7	5088780.6	6139828.6
Basic research	74527944.1	45306685.6	9806502.8	5824214.7	4672089.0	3598320.7	5320131.3
Applied research	35457277.1	14580486.7	8910718.7	7987136.7	2286298.4	1138808.5	553828.1
Development	60825795.8	4337955.3	53836338.9	1047551.7	986429.3	351651.4	265869.2
2012							
Intramural current expenditure on R&D	210559632.9	74578391.3	99706257.2	15817690.9	8026764.3	5652165.9	677836.3
Basic research	78699812.7	48982304.9	10692686.1	6227176.1	4157881.1	3442922.0	5196842.5
Applied research	50128152.6	16568445.2	19005871.9	8523260.5	2915626.9	1908941.7	1206006.4
Development	81731667.6	9027641.2	70007699.2	1067254.3	953256.3	300302.2	375514.4
2013							
Intramural current expenditure on R&D	213468794.6	79572896.8	93847670.4	17128372.1	9466494.3	6624251.4	6829109.6
Basic research	86128282.9	51133027.0	12746351.4	7571746.5	4660236.1	4449803.8	5567118.1
Applied research	49843105.3	19084334.2	16571591.2	8104764.8	3455260.0	1661589.4	965565.7
Development	77497406.4	9355535.6	64529727.8	1451860.8	1350998.2	512858.2	296425.8

5.2.22. SHARE OF THE GOVERNMENT SECTOR IN INTRAMURAL CURRENT EXPENDITURE ON R&D BY TYPE OF ACTIVITY



5.2.23. PERCENTAGE DISTRIBUTION OF INTRAMURAL CURRENT EXPENDITURE ON R&D IN THE GOVERNMENT SECTOR BY TYPE OF ACTIVITY



5.2.24. AVERAGE MONTHLY SALARY OF R&D PERSONNEL IN THE GOVERNMENT SECTOR

	1995	2000	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Average monthly salary, roubles, 1995 – thousand roubles	330.5	2015.6	5958.7	7220.9	9678.8	14208.3	19561.0	22979.7	24792.1	27869.4	32031.0	34523.8
As a percentage of that:												
in the national economy (=100%)	70.0	90.7	88.4	84.4	91.0	104.5	113.1	123.3	118.3	119.3	120.3	115.9
in manufacturing (=100%)	72.1	85.2	87.0	85.7	94.9	110.3	121.9	138.6	130.0	128.0	130.7	127.7
in construction (=100%)	56.2	76.4	81.6	79.9	89.0	99.1	105.3	126.8	117.1	117.7	123.4	124.6

State Academies of Sciences

5.2.25. NUMBER OF R&D INSTITUTIONS IN STATE ACADEMIES OF SCIENCES

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	838	837	851	891	865	864	857	873	865	872
Russian Academy of Sciences	452	451	465	479	468	469	472	483	484	514
Russian Academy of Agricultural Sciences	297	297	292	312	304	302	294	295	291	272
Russian Academy of Medical Sciences	67	66	68	69	68	67	64	65	58	53
Russian Academy of Architecture and Civil Engineering	5	5	6	6	5	5	5	7	7	7
Russian Academy of Education	16	17	19	22	18	20	20	21	23	24
Russian Academy of Fine Arts	1	1	1	3	2	1	2	2	2	2

5.2.26. R&D PERSONNEL IN STATE ACADEMIES OF SCIENCES BY OCCUPATION (headcount)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	147871	144661	142609	137544	139582	137743	135838	132847	132383
Researchers	83409	81389	80444	77315	78206	76868	74895	72290	71502
Technicians	15422	14475	14119	12966	13320	13228	13666	13878	14351
Supporting staff	25432	25148	24394	23683	23623	23025	23055	22155	22483
Others	23608	23649	23652	23580	24433	24622	24222	24524	24047
Russian Academy of Sciences	103294	99741	96969	93464	95290	95280	94945	95195	97574
Researchers	60613	58423	56764	54576	55402	55183	53657	52886	53355
Technicians	10072	9147	8866	8083	8350	8709	9340	9940	10788
Supporting staff	17556	17131	16396	15733	15804	15454	15850	15538	16216
Others	15053	15040	14943	15072	15734	15934	16098	16831	17215
Russian Academy of Agricultural Sciences	29134	29407	29854	28963	29081	27984	26723	25718	23242
Researchers	13350	13430	13914	13367	13200	12642	12273	11834	10884
Technicians	3688	3702	3749	3421	3534	3329	3156	2988	2615
Supporting staff	5707	5801	5683	5688	5731	5533	5290	5025	4662
Others	6389	6474	6508	6487	6616	6480	6004	5871	5081
Russian Academy of Medical Sciences	13292	13185	13272	12885	13063	12151	11940	9738	9380
Researchers	7842	7859	8007	7798	7998	7393	7378	6008	5738
Technicians	1575	1511	1402	1365	1368	1090	1089	903	886
Supporting staff	1923	1962	1985	1922	1851	1759	1642	1343	1320
Others	1952	1853	1878	1800	1846	1909	1831	1484	1436

(continued)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Russian Academy of Architecture and Civil Engineering	630	742	728	721	573	606	558	581	520
Researchers	424	445	461	462	396	420	382	423	382
Technicians	74	89	66	79	46	63	58	28	33
Supporting staff	55	76	73	110	63	66	59	38	29
Others	77	132	128	70	68	57	59	92	76
Russian Academy of Education	1441	1505	1562	1335	1492	1392	1344	1290	1352
Researchers	1116	1168	1176	1016	1136	1065	1044	977	982
Technicians	11	24	15	13	18	34	19	16	26
Supporting staff	180	166	212	159	173	130	131	130	178
Others	134	147	159	147	165	163	150	167	166
Russian Academy of Fine Arts	80	81	224	176	83	330	328	325	...*
Researchers	64	64	122	96	74	165	161	162	...*
Technicians	2	2	21	5	4	3	4	3	...*
Supporting staff	11	12	45	71	1	83	83	81	...*
Others	3	3	36	4	4	79	80	79	...*

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

5.2.27. RESEARCHERS WITH SCIENTIFIC DEGREES IN STATE ACADEMIES OF SCIENCES (headcount)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	48178	47987	48047	47044	48026	47692	47873	46846	46781
Doctors of Sciences	13735	13923	14246	14146	14405	14408	14536	14211	14178
Candidates of Sciences	34443	34064	33801	32898	33621	33284	32637	32635	32603
Russian Academy of Sciences	35378	34987	34613	33850	34654	34807	35109	35219	35831
Doctors of Sciences	10185	10311	10426	10355	10549	10641	10709	10760	10879
Candidates of Sciences	25193	24676	24187	23495	24105	24166	24400	24459	24952
Russian Academy of Agricultural Sciences	6332	6475	6761	6674	6694	6524	6417	6372	5859
Doctors of Sciences	1374	1405	1539	1571	1589	1567	1562	1602	1478
Candidates of Sciences	4958	5070	5222	5103	5105	4957	4855	4770	4381
Russian Academy of Medical Sciences	5611	5628	5715	5648	5735	5427	5412	4328	4190
Doctors of Sciences	1939	1949	1984	1958	1969	1905	1970	1551	1527
Candidates of Sciences	3672	3679	3731	3690	3766	3522	3442	2777	2663
Russian Academy of Architecture and Civil Engineering	123	123	127	130	134	128	122	147	121
Doctors of Sciences	26	29	36	38	38	33	31	42	34
Candidates of Sciences	97	94	91	92	96	95	91	105	87
Russian Academy of Education	679	719	776	687	758	739	748	715	714
Doctors of Sciences	189	207	237	200	237	239	241	233	236
Candidates of Sciences	490	512	539	487	521	500	507	482	478
Russian Academy of Fine Arts	55	55	55	55	51	67	65	65	...*
Doctors of Sciences	22	22	24	24	23	23	23	23	...*
Candidates of Sciences	33	33	31	31	28	44	42	42	...*

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

5.2.28. RESEARCHERS IN STATE ACADEMIES OF SCIENCES BY GENDER AND AGE GROUP

(headcount)

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Total	77315	14146	32898	71502	14178	32603
<i>Age, years:</i>						
under 29	10610	9	2025	9768	8	2107
30–39	12006	228	6633	14078	333	8537
40–49	12483	1437	6121	9295	1144	5268
50–59	18694	4024	8191	14217	3532	6548
60–69	14390	4212	6418	13908	4477	6094
70 and over	9132	4236	3510	10236	4684	4049
Male	41981	10740	17426	39144	10571	17068
<i>Age, years:</i>						
under 29	5774	8	1159	5307	7	1232
30–39	5804	159	3306	7110	228	4352
40–49	5928	1024	2952	4399	781	2391
50–59	9959	2932	4464	7524	2494	3381
60–69	8436	3332	3491	8248	3420	3477
70 and over	6080	3285	2054	6556	3641	2235
Female	35334	3406	15472	32358	3607	15535
<i>Age, years:</i>						
under 29	4836	1	866	4461	1	875
30–39	6202	69	3327	6968	105	4185
40–49	6555	413	3169	4896	363	2877
50–59	8735	1092	3727	6693	1038	3167
60–69	5954	880	2927	5660	1057	2617
70 and over	3052	951	1456	3680	1043	1814

(continued)

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Russian Academy of Sciences	54576	10355	23495	53355	10879	24952
<i>Age, years:</i>						
under 29	7379	1	1492	7411	6	1731
30–39	8116	136	4632	10303	215	6576
40–49	8436	891	4327	6500	782	3816
50–59	13167	2926	5878	10226	2562	4893
60–69	10707	3187	4708	10879	3581	4836
70 and over	6771	3214	2458	8036	3733	3100
Male	32618	8286	13419	31808	8512	13969
<i>Age, years:</i>						
under 29	4441	1	874	4411	6	1047
30–39	4457	106	2526	5714	162	3564
40–49	4492	687	2291	3427	565	1907
50–59	7842	2291	3478	6001	1920	2734
60–69	6738	2635	2773	6910	2857	2940
70 and over	4648	2566	1477	5345	3002	1777
Female	21958	2069	10076	21547	2367	10983
<i>Age, years:</i>						
under 29	2938	–	618	3000	–	684
30–39	3659	30	2106	4589	53	3012
40–49	3944	204	2036	3073	217	1909
50–59	5325	635	2400	4225	642	2159
60–69	3969	552	1935	3969	724	1896
70 and over	2123	648	981	2691	731	1323

(continued)

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Russian Academy of Agricultural Sciences	13367	1571	5103	10884	1478	4381
<i>Age, years:</i>						
under 29	2052	8	332	1489	1	249
30–39	1879	19	809	2159	56	1031
40–49	2235	142	867	1494	104	688
50–59	3524	417	1376	2509	415	994
60–69	2232	453	1014	1881	391	800
70 and over	1445	532	705	1352	511	619
Male	6024	1220	2599	4643	1097	2076
<i>Age, years:</i>						
under 29	905	7	189	619	–	141
30–39	739	11	378	849	37	477
40–49	814	90	367	511	74	260
50–59	1410	295	675	956	284	443
60–69	1134	377	520	848	289	397
70 and over	1022	440	470	860	413	358
Female	7343	351	2504	6241	381	2305
<i>Age, years:</i>						
under 29	1147	1	143	870	1	108
30–39	1140	8	431	1310	19	554
40–49	1421	52	500	983	30	428
50–59	2114	122	701	1553	131	551
60–69	1098	76	494	1033	102	403
70 and over	423	92	235	492	98	261

(continued)

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Russian Academy of Medical Sciences	7798	1958	3690	5738	1527	2663
<i>Age, years:</i>						
under 29	982	–	179	759	–	106
30–39	1785	73	1102	1364	57	830
40–49	1521	378	803	1057	231	653
50–59	1613	607	768	1089	477	487
60–69	1192	504	580	844	410	351
70 and over	705	396	258	625	352	236
Male	2844	1099	1216	2144	826	851
<i>Age, years:</i>						
under 29	375	–	86	232	–	35
30–39	555	42	377	482	28	294
40–49	551	234	253	389	131	198
50–59	582	313	257	425	253	152
60–69	453	282	164	357	223	108
70 and over	328	228	79	259	191	64
Female	4954	859	2474	3594	701	1812
<i>Age, years:</i>						
under 29	607	–	93	527	–	71
30–39	1230	31	725	882	29	536
40–49	970	144	550	668	100	455
50–59	1031	294	511	664	224	335
60–69	739	222	416	487	187	243
70 and over	377	168	179	366	161	172

(continued)

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Russian Academy of Architecture and Civil Engineering	462	38	92	382	34	87
<i>Age, years:</i>						
under 29	62	–	2	24	–	2
30–39	64	–	11	63	1	13
40–49	77	3	10	43	1	12
50–59	113	6	16	103	9	22
60–69	82	10	26	83	3	12
70 and over	64	19	27	66	20	26
Male	195	28	51	193	23	46
<i>Age, years:</i>						
under 29	26	–	2	15	–	–
30–39	25	–	6	22	1	5
40–49	29	1	8	19	–	8
50–59	33	3	9	53	6	13
60–69	52	10	13	42	1	6
70 and over	30	14	13	42	15	14
Female	267	10	41	189	11	41
<i>Age, years:</i>						
under 29	36	–	–	9	–	2
30–39	39	–	5	41	–	8
40–49	48	2	2	24	1	4
50–59	80	3	7	50	3	9
60–69	30	–	13	41	2	6
70 and over	34	5	14	24	5	12

(continued)

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Russian Academy of Education	1016	200	487	982	236	478
<i>Age, years:</i>						
under 29	128	–	18	80	1	19
30–39	153	–	75	162	4	75
40–49	201	22	110	178	25	92
50–59	261	65	144	258	67	150
60–69	152	49	87	184	84	86
70 and over	121	64	53	120	55	56
Male	276	97	136	289	102	120
<i>Age, years:</i>						
under 29	24	–	8	30	1	9
30–39	27	–	19	33	–	12
40–49	37	11	31	44	10	18
50–59	89	29	43	73	31	39
60–69	53	23	21	73	45	26
70 and over	46	34	14	36	15	16
Female	740	103	351	693	134	358
<i>Age, years:</i>						
under 29	104	–	10	50	–	10
30–39	126	–	56	129	4	63
40–49	164	11	79	134	15	74
50–59	172	36	101	185	36	111
60–69	99	26	66	111	39	60
70 and over	75	30	39	84	40	40

(continued)

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Russian Academy of Fine Arts	96	24	31	...*	...*	...*
<i>Age, years:</i>						
under 29	7	–	2	...*		
30–39	9	–	4	...*		...*
40–49	13	1	4	...*	...*	...*
50–59	16	3	9	...*	...*	...*
60–69	25	9	3	...*	...*	...*
70 and over	26	11	9	...*	...*	...*
Male	24	10	5	...*	...*	...*
<i>Age, years:</i>						
under 29	3	–	–	...*		
30–39	1	–	–	...*	...*	...*
40–49	5	1	2	...*		
50–59	3	1	2	...*	...*	...*
60–69	6	5	–	...*	...*	...*
70 and over	6	3	1	...*	...*	...*
Female	72	14	26	...*		
<i>Age, years:</i>						
under 29	4	–	2	...*		
30–39	8	–	4	...*		...*
40–49	8	–	2	...*		...*
50–59	13	2	7	...*	...*	...*
60–69	19	4	3	...*	...*	...*
70 and over	20	8	8	...*	...*	...*

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

5.2.29. GROSS DOMESTIC EXPENDITURE ON R&D IN STATE ACADEMIES OF SCIENCES

(thousand roubles)

	2005	2008	2009	2010	2011	2012	2013
At current prices							
Total	32401091.0	69073252.5	78818046.1	78636432.4	86974142.9	91204351.9	96334004.7
Russian Academy of Sciences	25799901.3	55912011.9	61370704.2	62471831.1	67408937.0	73456204.6	77899785.1
Russian Academy of Agricultural Sciences	3668815.1	7520092.1	9705184.3	8775351.6	9701044.9	9739635.0	10042225.3
Russian Academy of Medical Sciences	2547513.4	4710248.7	6688484.7	6105878.2	8403120.8	6506574.0	7006422.2
Russian Academy of Architecture and Civil Engineering	181189.4	399906.2	408177.1	385608.2	487273.3	394408.2	420734.7
Russian Academy of Education	190812.2	416418.9	613427.0	578024.0	593962.6	636459.6	676252.3
Russian Academy of Fine Arts	12859.6	114574.7	32068.8	319739.3	379804.3	471070.5	...*
At constant 1989 prices							
Total	638.4	879.8	984.3	859.9	820.6	800.5	798.4
Russian Academy of Sciences	508.4	712.2	766.4	683.1	636.0	644.7	645.6
Russian Academy of Agricultural Sciences	72.3	95.8	121.2	96.0	91.5	85.5	83.2
Russian Academy of Medical Sciences	50.2	60.0	83.5	66.8	79.3	57.1	58.1
Russian Academy of Architecture and Civil Engineering	3.6	5.1	5.1	4.2	4.6	3.5	3.5
Russian Academy of Education	3.8	5.3	7.7	6.3	5.6	5.6	5.6
Russian Academy of Fine Arts	0.3	1.5	0.4	3.5	3.6	4.1	...*

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

5.2.30. GROSS DOMESTIC EXPENDITURE ON R&D IN STATE ACADEMIES OF SCIENCES BY SOURCE OF FUNDS

(thousand roubles)

	Total	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
2005						
Total	32401091.0	27236822.1	3747062.6	41279.2	13757.0	1362170.1
Russian Academy of Sciences	25799901.3	21299039.5	3102597.8	41065.6	13296.3	1343902.1
Russian Academy of Agricultural Sciences	3668815.1	3284080.1	380561.3	107.1	15.0	4051.6
Russian Academy of Medical Sciences	2547513.4	2366534.6	166210.2	106.5	445.7	14216.4
Russian Academy of Architecture and Civil Engineering	181189.4	93690.6	87498.8	–	–	–
Russian Academy of Education	190812.2	181456.6	9355.6	–	–	–
Russian Academy of Fine Arts	12859.6	12020.7	838.9	–	–	–
2010						
Total	78636432.4	69475039.7	7559777.6	155682.3	43440.3	1402492.5
Russian Academy of Sciences	62471831.1	54737822.6	6213854.4	150989.6	43329.6	1325834.9
Russian Academy of Agricultural Sciences	8775351.6	8081393.0	683215.4	3497.2	85.0	7161.0
Russian Academy of Medical Sciences	6105878.2	5540950.2	498960.2	1195.5	25.7	64746.6
Russian Academy of Architecture and Civil Engineering	385608.2	229199.9	156408.3	–	–	–
Russian Academy of Education	578024.0	565934.7	7339.3	–	–	4750.0
Russian Academy of Fine Arts	319739.3	319739.3	–	–	–	–

* Including federal budget appropriations, own funds and funds of government sector institutions.

(continued)

	Total	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
2012						
Total	91204351.9	81151354.6	8251785.7	122857.7	53989.4	1624364.5
Russian Academy of Sciences	73456204.6	65185094.8	6581860.4	118695.3	41334.2	1529219.9
Russian Academy of Agricultural Sciences	9739635.0	8815209.9	899475.5	3146.6	12655.2	9147.8
Russian Academy of Medical Sciences	6506574.0	5776152.2	653272.7	1000.0	–	76149.1
Russian Academy of Architecture and Civil Engineering	394408.2	275867.6	117177.1	15.8	–	1347.7
Russian Academy of Education	636459.6	627959.6	–	–	–	8500.0
Russian Academy of Fine Arts	471070.5	471070.5	–	–	–	–
2013						
Total	96334004.7	84962921.8	9729227.2	136154.6	27020.0	1478681.1
Russian Academy of Sciences	77899785.1	68358846.3	8059760.2	133920.1	25049.6	1322208.9
Russian Academy of Agricultural Sciences	10042225.3	8929842.6	1046814.4	909.5	1970.4	62688.4
Russian Academy of Medical Sciences	7006422.2	6447632.2	463821.9	1325.0	–	93643.1
Russian Academy of Architecture and Civil Engineering	420734.7	266054.0	154680.7	–	–	–
Russian Academy of Education	676252.3	671961.6	4150.0	–	–	140.7
Russian Academy of Fine Arts	...*	...*	...*	...*	...*	...*

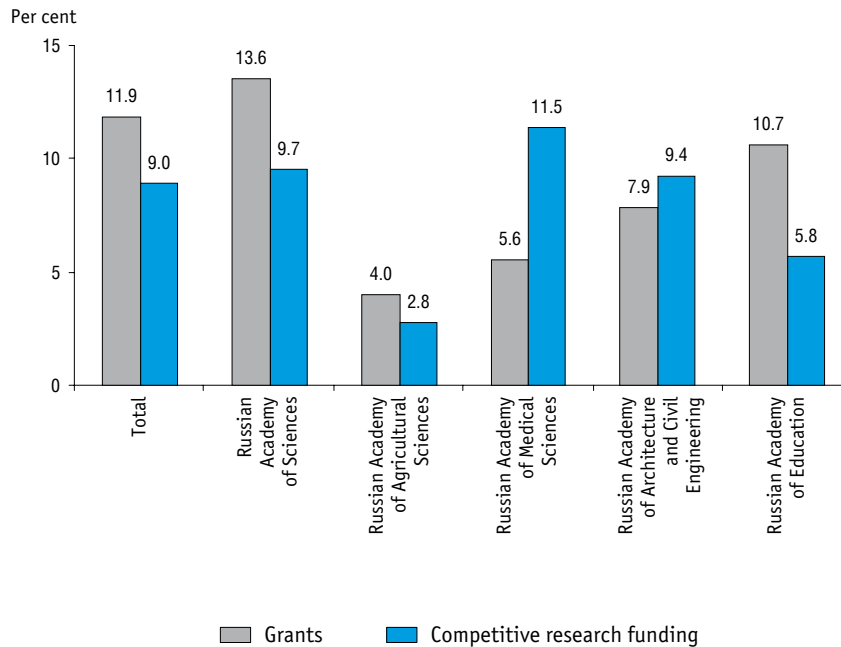
* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

5.2.31. GROSS DOMESTIC EXPENDITURE ON GRANTS AND COMPETITIVE RESEARCH FUNDING IN STATE ACADEMIES OF SCIENCES

	Grants			Competitive research funding		
	2011	2012	2013	2011	2012	2013
Total	4313410.5	7114753.3	11508566.3	10578551.8	9341312.9	8704020.7
Russian Academy of Sciences	4025456.8	6799668.2	10605423.9	8939587.6	8718536.1	7532954.4
Russian Academy of Agricultural Sciences	53864.0	72663.8	404906.2	184902.9	194786.4	283750.9
Russian Academy of Medical Sciences	223855.7	191880.8	391539.7	1398392.2	340025.1	808832.5
Russian Academy of Architecture and Civil Engineering	1860.7	32480.9	33050.4	700.0	71120.4	39402.9
Russian Academy of Education	8203.7	17709.6	72546.1	54969.1	16844.9	39080.0
Russian Academy of Fine Arts	169.6	350.0	...*	–	–	...*
		Per cent				
Total	100	100	100	100	100	100
Russian Academy of Sciences	93.3	95.6	92.2	84.5	93.3	86.5
Russian Academy of Agricultural Sciences	1.2	1.0	3.5	1.7	2.1	3.3
Russian Academy of Medical Sciences	5.2	2.7	3.4	13.2	3.6	9.3
Russian Academy of Architecture and Civil Engineering	0.04	0.5	0.3	0.0	0.8	0.5
Russian Academy of Education	0.2	0.2	0.6	0.5	0.2	0.4
Russian Academy of Fine Arts	0.0	0.0	...*	–	–	...*

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

5.2.32. SHARE OF GRANTS AND COMPETITIVE RESEARCH FUNDING WITHIN DOMESTIC EXPENDITURE ON R&D IN STATE ACADEMIES OF SCIENCES: 2013



5.2.33. INTRAMURAL CURRENT EXPENDITURE ON R&D IN STATE ACADEMIES OF SCIENCES
BY TYPE OF ACTIVITY AND FIELD OF SCIENCE AND TECHNOLOGY
(thousand roubles)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
2005							
Total	29777478.1	18396766.8	3775012.8	2020462.4	2951709.2	1372350.1	1261176.8
Basic research	22450265.3	15034789.2	1927581.8	1408254.7	1836684.2	1091798.9	1151156.5
Applied research	4684246.1	1900244.9	1203638.6	563651.8	722305.7	198138.7	96266.4
Development	2642966.7	1461732.7	643792.4	48555.9	392719.3	82412.5	13753.9
Russian Academy of Sciences	23557587.3	17820136.5	3264013.9	47892.7	44178.1	1153846.0	1227520.1
Basic research	18378054.4	14533327.6	1703406.3	35192.4	41527.0	946190.9	1118410.2
Applied research	3189013.1	1839125.4	1049372.4	12311.2	2327.3	190520.8	95356.0
Development	1990519.8	1447683.5	511235.2	389.1	323.8	17134.3	13753.9
Russian Academy of Agricultural Sciences	3436402.9	106420.4	419417.8	1730.0	2907531.1	1303.6	–
Basic research	2035377.8	71301.6	167578.4	1250.0	1795157.2	90.6	–
Applied research	871853.0	29707.4	120474.2	480.0	719978.4	1213.0	–
Development	529172.1	5411.4	131365.2	–	392395.5	–	–
Russian Academy of Medical Sciences	2408455.9	436190.0	–	1970839.7	–	1426.2	–
Basic research	1769378.6	396140.1	–	1371812.3	–	1426.2	–
Applied research	582272.7	31412.1	–	550860.6	–	–	–
Development	56804.6	8637.8	–	48166.8	–	–	–

(continued)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
Russian Academy of Architecture and Civil Engineering	177296.8	–	91418.1	–	–	77481.1	8397.6
Basic research	77034.6	–	56434.1	–	–	12202.9	8397.6
Applied research	33792.0	–	33792.0	–	–	–	–
Development	66470.2	–	1192.0	–	–	65278.2	–
Russian Academy of Education	184875.6	34019.9	163.0	–	–	138293.2	12399.5
Basic research	177560.3	34019.9	163.0	–	–	131888.3	11489.1
Applied research	7315.3	–	–	–	–	6404.9	910.4
Development	–	–	–	–	–	–	–
Russian Academy of Fine Arts	12859.6	–	–	–	–	–	12859.6
Basic research	12859.6	–	–	–	–	–	12859.6
Applied research	–	–	–	–	–	–	–
Development	–	–	–	–	–	–	–

(continued)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
2010							
Total	75567075.3	46641824.7	9151937.5	5287947.4	6874515.6	3762206.3	3848643.8
Basic research	58463215.8	37672321.3	5723699.7	3697076.7	4463165.3	3297631.8	3609321.0
Applied research	11703343.1	5850061.3	2139160.2	1419197.8	1606420.9	454879.8	233623.1
Development	5400516.4	3119442.1	1289077.6	171672.9	804929.4	9694.7	5699.7
Russian Academy of Sciences	60061026.4	45208595.2	7859430.1	178674.8	112792.9	3109326.9	3592206.5
Basic research	48106251.7	36707923.6	5070955.9	144313.2	96417.7	2733202.6	3353438.7
Applied research	7844789.1	5397720.1	1828517.0	15577.7	3476.6	366429.6	233068.1
Development	4109985.6	3102951.5	959957.2	18783.9	12898.6	9694.7	5699.7
Russian Academy of Agricultural Sciences	8511755.9	696803.8	1018426.0	10471.7	6761722.7	22477.7	1854.0
Basic research	5331254.1	463607.9	475500.7	6440.0	4366747.6	17658.9	1299.0
Applied research	2110516.6	222416.8	275750.0	4031.7	1602944.3	4818.8	555.0
Development	1069985.2	10779.1	267175.3	–	792030.8	–	–
Russian Academy of Medical Sciences	5815021.4	713434.9	–	5098800.9	–	2785.6	–
Basic research	4026908.1	477799.0	–	3546323.5	–	2785.6	–
Applied research	1629512.8	229924.4	–	1399588.4	–	–	–
Development	158600.5	5711.5	–	152889.0	–	–	–

(continued)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
Russian Academy of Architecture and Civil Engineering	382164.7	–	274081.4	–	–	74461.0	33622.3
Basic research	222641.4	–	177243.1	–	–	11776.0	33622.3
Applied research	97578.2	–	34893.2	–	–	62685.0	–
Development	61945.1	–	61945.1	–	–	–	–
Russian Academy of Education	577367.6	22990.8	–	–	–	553155.1	1221.7
Basic research	556421.2	22990.8	–	–	–	532208.7	1221.7
Applied research	20946.4	–	–	–	–	20946.4	–
Development	–	–	–	–	–	–	–
Russian Academy of Fine Arts	219739.3	–	–	–	–	–	219739.3
Basic research	219739.3	–	–	–	–	–	219739.3
Applied research	–	–	–	–	–	–	–
Development	–	–	–	–	–	–	–

(continued)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
2013							
Total	93490382.6	56875009.3	12964094.3	5597499.9	8307956.9	4818360.1	4927462.1
Basic research	72340716.5	48206181.0	7062414.4	4132096.6	4495728.4	4037537.8	4406758.3
Applied research	13073307.0	4782412.8	2991026.0	1411814.4	2826441.9	580733.7	480878.2
Development	8076359.1	3886415.5	2910653.9	53588.9	985786.6	200088.6	39825.6
Russian Academy of Sciences	75514874.8	54853345.0	11303487.2	252173.6	595653.6	3969481.7	4540733.7
Basic research	60422820.1	46411503.9	6170489.3	209231.0	230343.5	3343037.9	4058214.5
Applied research	8357928.8	4587188.0	2494100.4	32382.5	296624.5	467969.2	479664.2
Development	6734125.9	3854653.1	2638897.5	10560.1	68685.6	158474.6	2855.0
Russian Academy of Agricultural Sciences	9835416.6	571337.0	1359846.4	10600.0	7678782.8	211560.0	3290.4
Basic research	5472508.2	402149.6	702113.9	5800.0	4249853.7	110514.6	2076.4
Applied research	3228072.7	149253.9	460704.8	4800.0	2511828.1	100271.9	1214.0
Development	1134835.7	19933.5	197027.7	–	917101.0	773.5	–
Russian Academy of Medical Sciences	6757241.6	1420450.7	–	5334726.3	–	2064.6	–
Basic research	5281781.1	1362650.9	–	3917065.6	–	2064.6	–
Applied research	1420602.8	45970.9	–	1374631.9	–	–	–
Development	54857.7	11828.9	–	43028.8	–	–	–

(continued)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
Russian Academy of Architecture and Civil Engineering	419462.0	–	300760.7	–	1100.0	34605.7	82995.6
Basic research	241095.6	–	189811.2	–	1100.0	4159.4	46025.0
Applied research	36220.8	–	36220.8	–	–	–	–
Development	142145.6	–	74728.7	–	–	30446.3	36970.6
Russian Academy of Education	674802.5	29876.6	–	–	32420.5	600648.1	11857.3
Basic research	633926.4	29876.6	–	–	14431.2	577761.3	11857.3
Applied research	30481.9	–	–	–	17989.3	12492.6	–
Development	10394.2	–	–	–	–	10394.2	–
Russian Academy of Fine Arts	...*	–	–	–	–	–	...*
Basic research	...*	–	–	–	–	–	...*
Applied research	–	–	–	–	–	–	–
Development	–	–	–	–	–	–	–

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

5.3. Business Enterprise Sector

5.3.1. R&D INSTITUTIONS IN THE BUSINESS ENTERPRISE SECTOR BY TYPE

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	2345	2278	1990	1851	1703	1682	1742	1540	1446	1405	1450	1362	1269
Research institutes	1089	1062	956	888	855	805	765	699	659	634	598	567	514
Design organisations	615	564	487	451	410	398	391	334	306	290	287	262	265
Construction project and exploration organisations	204	94	71	60	55	51	45	37	31	31	32	27	26
Industrial enterprises	286	276	240	238	231	255	265	239	228	238	280	274	266
Experimental enterprises	31	32	30	25	16	15	19	20	21	16	14	19	9
Others	120	250	206	189	136	158	257	211	201	196	239	213	189

5.3.2. R&D PERSONNEL IN THE BUSINESS ENTERPRISE SECTOR BY TYPE OF INSTITUTIONS

(headcount)

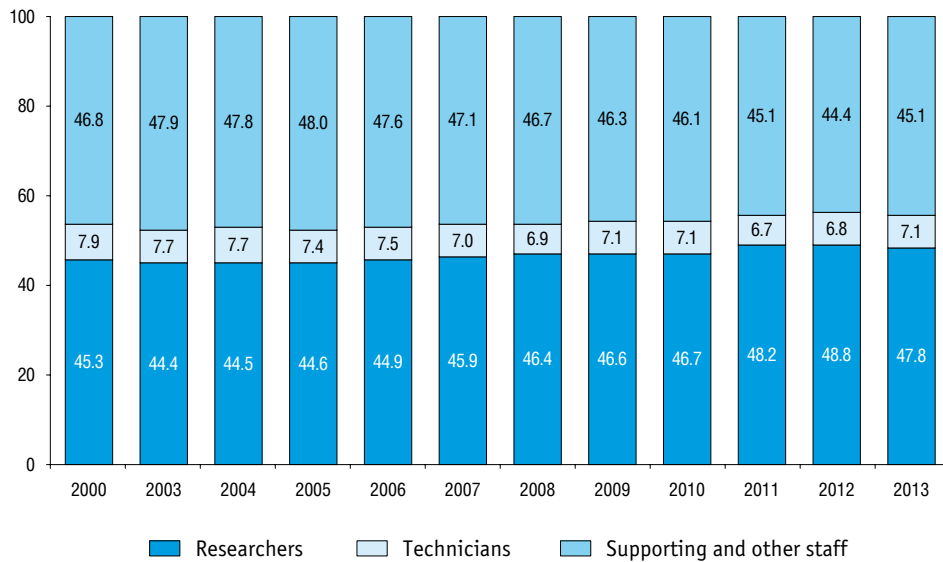
	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	726568	590646	558668	537473	496706	486613	478401	451532	432415	423112	419752	394182	405268
Research institutes	438599	349242	302617	286133	255233	243004	234808	225430	214050	207166	196235	194274	205511
Design organisations	174523	151705	170095	170323	161295	153259	148294	138713	135811	129281	135133	110381	112617
Construction project and exploration organisations	20844	8177	6391	5707	5284	5839	7001	6004	5320	4905	5076	5402	3751
Industrial enterprises	73410	52598	46575	47892	43524	59856	56759	52042	49042	51807	52004	52071	52232
Experimental enterprises	9998	3945	9311	5570	865	5736	2653	849	938	925	852	946	705
Others	9194	24979	23679	21848	30505	18919	28886	28494	27254	29028	30452	31108	30536

5.3.3. R&D PERSONNEL IN THE BUSINESS ENTERPRISE SECTOR BY OCCUPATION

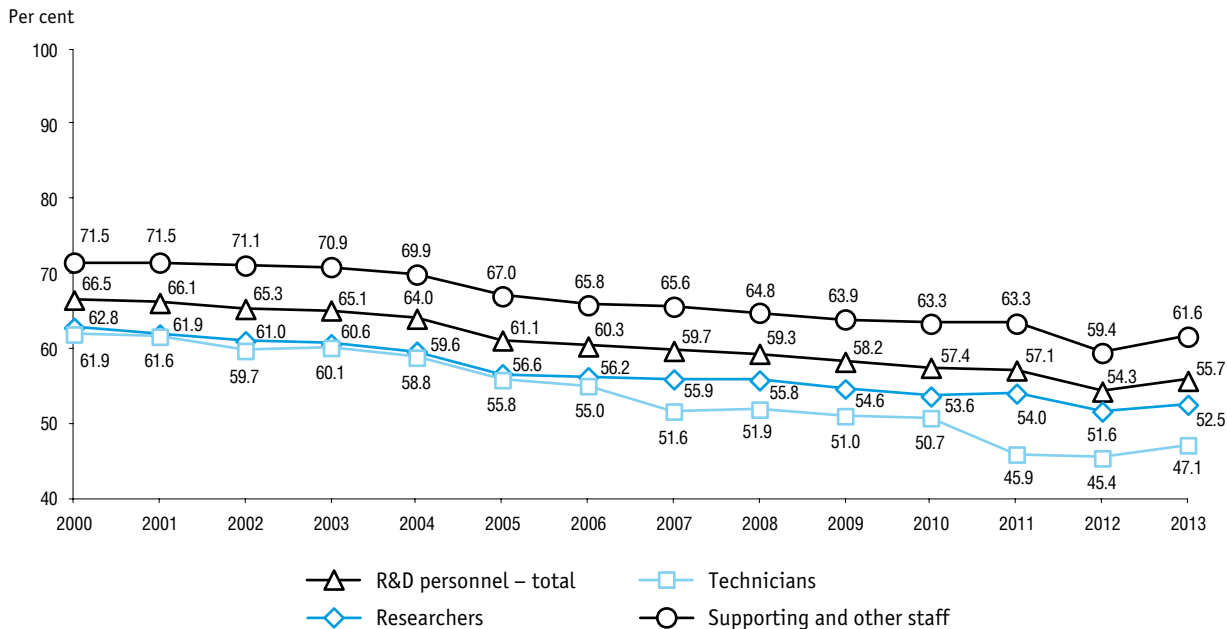
(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	726568	590646	558668	537473	496706	486613	478401	451532	432415	423112	419752	394182	405268
Researchers	336671	267640	248232	239172	221445	218702	219632	209579	201668	197785	202185	192285	193736
Technicians	70180	46535	43137	41171	38837	36315	33340	31230	30613	30063	28235	26720	28920
Supporting staff	201122	175261	166620	159650	147980	144966	140507	129496	123814	120485	116829	106306	109691
Others	118595	101210	100679	97480	90444	86630	84922	81227	76320	74779	72503	68871	72921

5.3.4. PERCENTAGE DISTRIBUTION OF R&D PERSONNEL IN THE BUSINESS ENTERPRISE SECTOR BY OCCUPATION



5.3.5. SHARE OF THE BUSINESS ENTERPRISE SECTOR IN TOTAL R&D PERSONNEL BY OCCUPATION



5.3.6. R&D PERSONNEL IN THE BUSINESS ENTERPRISE SECTOR BY EDUCATIONAL ATTAINMENT (headcount)

	Total	University degrees	Other post-secondary degrees	Other degrees
R&D personnel				
2005	496706	288649	89265	118792
2009	432415	270449	73054	88912
2010	423112	268821	69552	84739
2011	419752	275431	66267	78054
2012	394182	263555	60764	69863
2013	405268	271434	61575	72259
Researchers				
2005	221445	221445	–	–
2009	201668	201668	–	–
2010	197785	197785	–	–
2011	202185	202185	–	–
2012	192285	192285	–	–
2013	193736	193736	–	–
Technicians				
2005	36837	6274	21435	9130
2009	30613	7261	15924	7428
2010	30063	7842	15051	7170
2011	28235	7882	13972	6381
2012	26720	7547	13096	6077
2013	28920	9428	12887	6605

(continued)

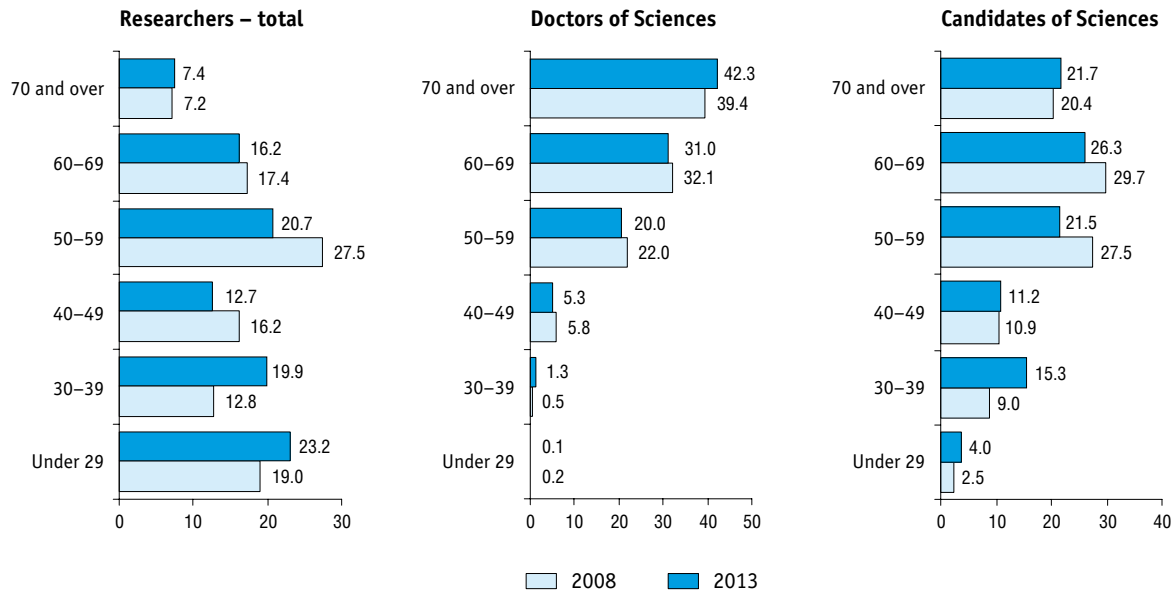
	Total	University degrees	Other post-secondary degrees	Other degrees
Supporting staff				
2005	147980	37101	42099	68780
2009	123814	38134	35605	50075
2010	120485	38988	33362	48135
2011	116829	39771	32170	44888
2012	106306	37181	29116	40009
2013	109691	39124	29508	41059
Others				
2005	90444	23829	25733	40882
2009	76320	23386	21525	31409
2010	74779	24206	21139	29434
2011	72503	25593	20125	26785
2012	68871	26542	18552	23777
2013	72921	29146	19180	24595

5.3.7. RESEARCHERS IN THE BUSINESS ENTERPRISE SECTOR BY GENDER AND AGE GROUP

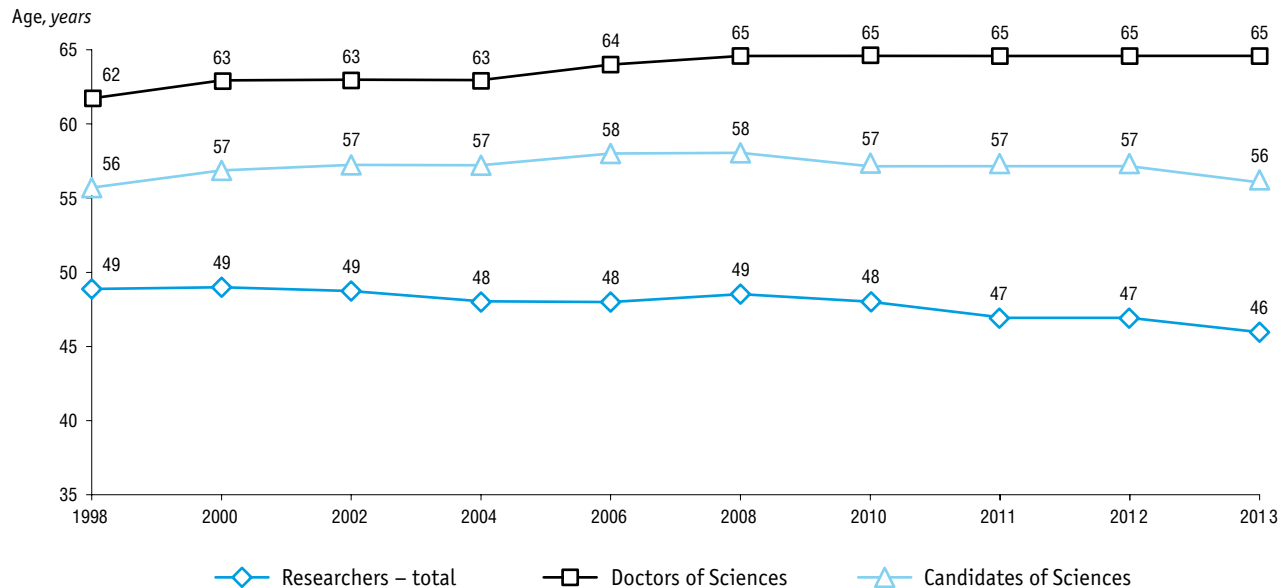
(headcount)

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Total	209579	4284	20560	193736	3622	17333
Age, years:						
under 29	39743	8	522	44885	5	688
30–39	26840	21	1845	38503	48	2658
40–49	33992	250	2234	24598	191	1949
50–54	28373	369	2334	19077	285	1587
55–59	29208	572	3324	21015	439	2131
60–69	36400	1375	6113	31323	1122	4556
70 and over	15023	1689	4188	14335	1532	3764
Male	125997	3905	16502	121192	3335	14053
Age, years:						
under 29	25365	7	397	29199	5	503
30–39	16324	17	1303	25210	37	1976
40–49	17239	220	1676	13866	170	1472
50–54	15126	317	1817	10204	255	1296
55–59	16262	509	2667	11841	394	1749
60–69	23519	1276	5109	19612	1038	3877
70 and over	12162	1559	3533	11260	1436	3180
Female	83582	379	4058	72544	287	3280
Age, years:						
under 29	14378	1	125	15686	–	185
30–39	10516	4	542	13293	11	682
40–49	16753	30	558	10732	21	477
50–54	13247	52	517	8873	30	291
55–59	12946	63	657	9174	45	382
60–69	12881	99	1004	11711	84	679
70 and over	2861	130	655	3075	96	584

5.3.8. PERCENTAGE DISTRIBUTION OF RESEARCHERS IN THE BUSINESS ENTERPRISE SECTOR BY AGE GROUP



5.3.9. AVERAGE AGE OF RESEARCHERS IN THE BUSINESS ENTERPRISE SECTOR

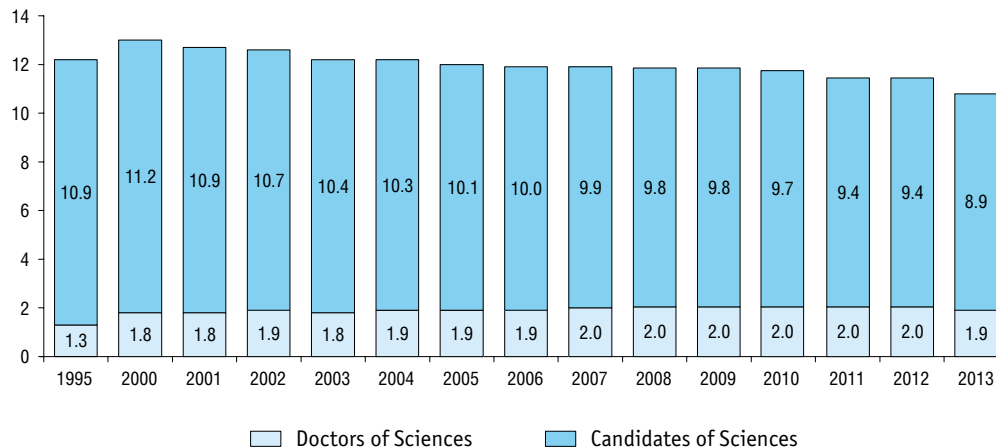


5.3.10. RESEARCHERS WITH SCIENTIFIC DEGREES IN THE BUSINESS ENTERPRISE SECTOR

(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Researchers with scientific degrees	41207	34775	30507	29048	26661	25958	26257	24844	23861	23169	23045	21758	20955
Doctors of Sciences	4348	4806	4583	4511	4222	4108	4446	4284	4093	3987	4018	3767	3622
Candidates of Sciences	36859	29969	25924	24537	22439	21850	21811	20560	19768	19182	19027	17991	17333

5.3.11. RESEARCHERS WITH SCIENTIFIC DEGREES AS A PERCENTAGE OF THE TOTAL NUMBER OF RESEARCHERS IN THE BUSINESS ENTERPRISE SECTOR



5.3.12. RESEARCHERS IN THE BUSINESS ENTERPRISE SECTOR BY FIELD OF SCIENCE AND TECHNOLOGY

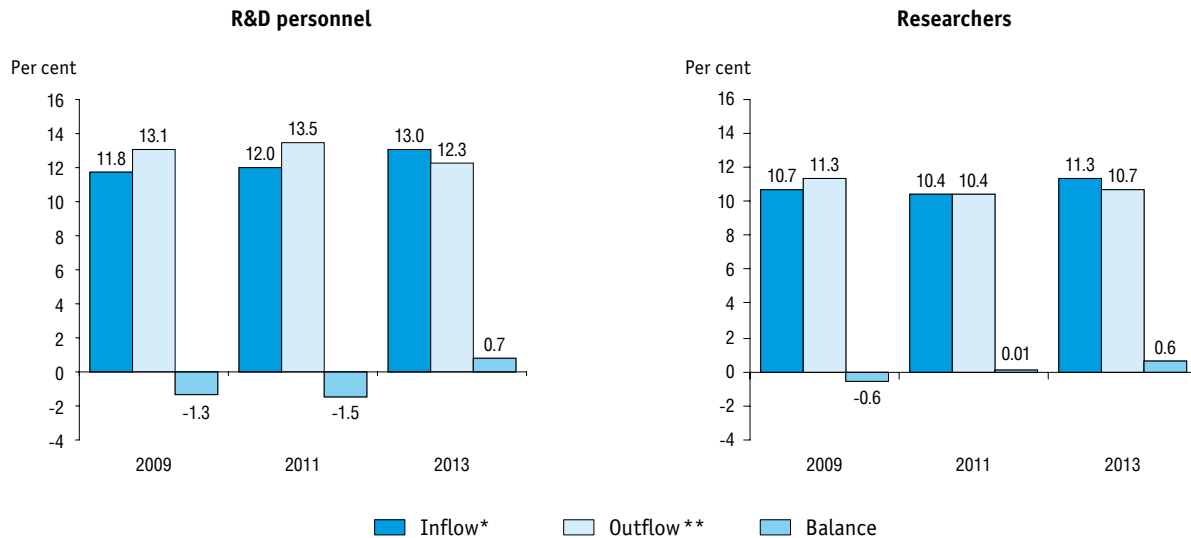
(headcount)

	2008			2011			2012			2013		
	Researchers	Of whom		Researchers	Of whom		Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Total	209579	4284	20560	202185	4018	19027	192285	3767	17991	193736	3622	17333
Natural sciences	25014	1301	5106	22434	1262	4786	20312	1135	4488	19327	1059	4006
Engineering	177503	2478	13712	173916	2334	12729	166841	2271	12084	170013	2306	12311
Medical sciences	1353	139	413	1354	131	376	1146	117	319	933	65	192
Agricultural sciences	2401	185	685	1539	141	561	1334	106	469	690	38	234
Social sciences	3109	161	587	2730	128	522	2465	128	602	2670	150	578
Humanities	199	20	57	212	22	53	187	10	29	103	4	12

5.3.13. FLOWS OF R&D PERSONNEL IN THE BUSINESS ENTERPRISE SECTOR BY OCCUPATION (headcount)

	Number at the beginning of the reference year	Inflow				Outflow				Number at the end of the reference year
		Total	Of whom			Total	Of which			
			graduates from higher education institutions	from other research institutes	others		voluntary turnover	due to staff reduction	for other reasons	
Total										
2005	508840	68528	8027	8756	51745	80662	52534	5722	22406	496706
2009	438982	50863	7550	7328	35985	57430	34540	3916	18974	432415
2011	427274	50218	7976	6092	36150	57740	36033	1794	19913	419752
2013	401809	52700	6758	7632	38310	49241	32584	1159	15498	405268
Researchers										
2005	227397	22807	6529	5028	11250	28822	19496	2053	7273	221445
2009	202994	21522	5776	4501	11245	22979	14360	1615	7004	201668
2011	202213	21121	5890	3770	11461	21109	14428	696	5985	202185
2013	192306	21908	4703	4471	12734	20499	13769	380	6350	193736
Technicians										
2005	38078	5739	301	729	4709	6965	4347	388	2230	36837
2009	31615	4586	319	612	3655	5511	3243	365	1903	30613
2011	29057	4500	358	524	3618	5365	3378	124	1863	28235
2013	28318	5409	506	665	4238	4779	2829	75	1875	28920
Supporting and other staff										
2005	243365	39982	1197	2999	35786	44875	28691	3281	12903	238424
2009	204373	24755	1455	2215	21085	28940	16937	1936	10067	200134
2011	196004	24597	1728	1798	21071	31266	18227	974	12065	189332
2013	181185	25383	1549	2496	21338	23963	15986	704	7273	182612

5.3.14. INFLOW AND OUTFLOW OF R&D PERSONNEL IN THE BUSINESS ENTERPRISE SECTOR

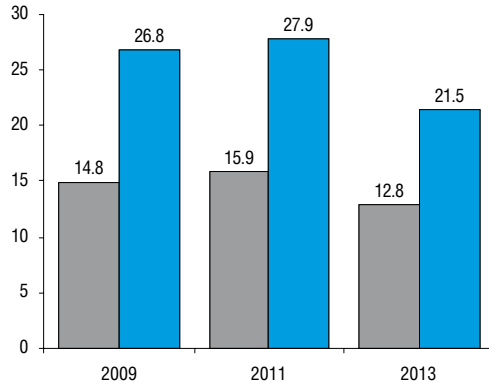


* The ratio of the R&D personnel admitted during the year to the number of employees at the end of the year.

** The ratio of the R&D personnel having resigned during the year to the number of employees at the beginning of the year.

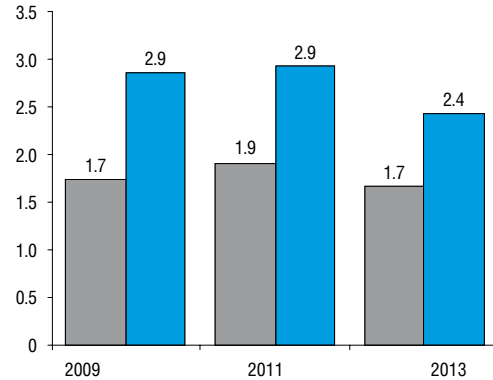
5.3.15. INFLOW OF HIGHER EDUCATION GRADUATES TO R&D INSTITUTIONS IN THE BUSINESS ENTERPRISE SECTOR

Higher education graduates as a percentage of the inflow to R&D institutions



■ R&D personnel – total

Higher education graduates as a percentage of R&D personnel*



■ Researchers

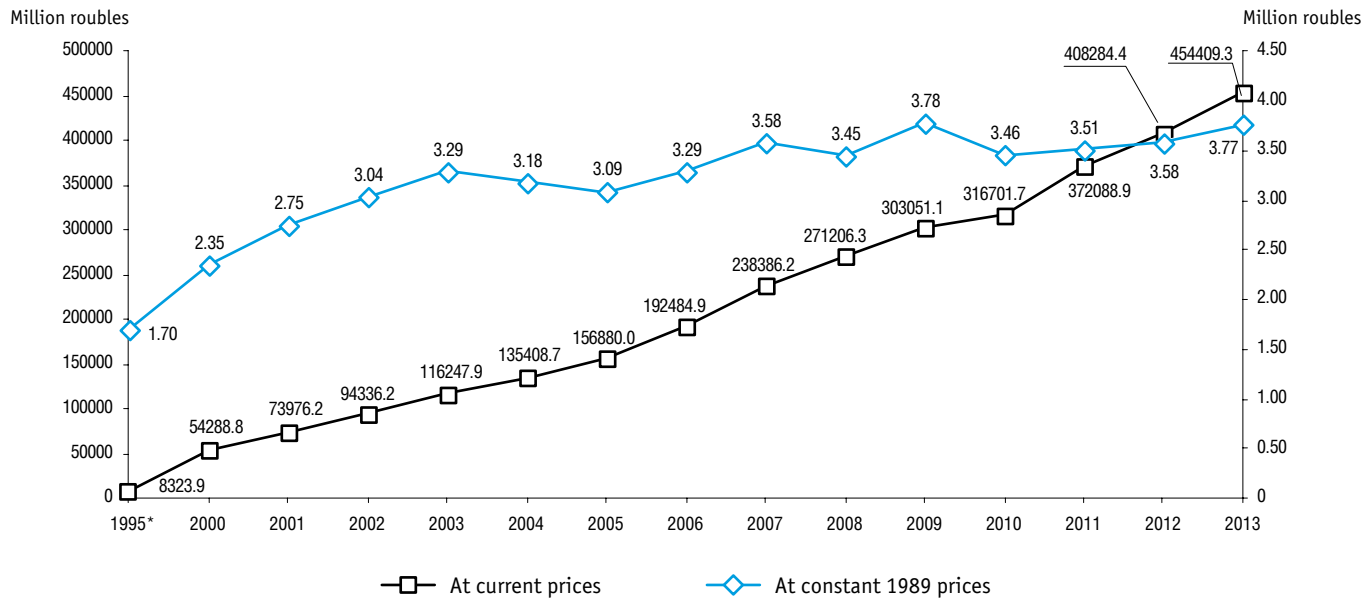
* The ratio of the higher education graduates admitted during the year to the number of employees at the end of the year.

5.3.16. GROSS DOMESTIC EXPENDITURE ON R&D IN THE BUSINESS ENTERPRISE SECTOR BY TYPE OF INSTITUTIONS

(thousand roubles)

	2000	2005	2007	2008	2009	2010	2011	2012	2013
Total	54288781.4	156880029.0	238386207.4	271206280.5	303051131.5	316701679.9	372088873.4	408284378.5	454409251.0
Research institutes	31145022.1	79303185.8	104244210.6	126680440.5	135958941.4	149370680.2	169714137.6	200622676.3	223137546.4
Design organisations	13115444.7	51857668.0	82256666.5	91233658.1	109741372.9	99778643.7	117208342.7	104269890.1	118708123.0
Construction project and exploration organisations	539721.1	1604470.7	3639681.6	4511306.2	4491565.7	3690958.0	4688711.6	5827594.8	3579155.2
Industrial enterprises	4726082.4	12633435.9	25337067.8	23918615.0	26940377.2	32838780.9	41251710.9	49952762.8	59346858.0
Experimental enterprises	294581.2	150835.5	851914.6	331824.8	392760.1	398159.1	372177.7	746678.7	808351.2
Others	4467929.9	11330433.1	22056666.3	24530435.9	25526114.2	30624458.0	38853792.9	46864775.8	48829217.2

5.3.17. GROSS DOMESTIC EXPENDITURE ON R&D IN THE BUSINESS ENTERPRISE SECTOR



* Billion roubles.

5.3.18. GROSS DOMESTIC EXPENDITURE ON R&D IN THE BUSINESS ENTERPRISE SECTOR BY SOURCE OF FUNDS

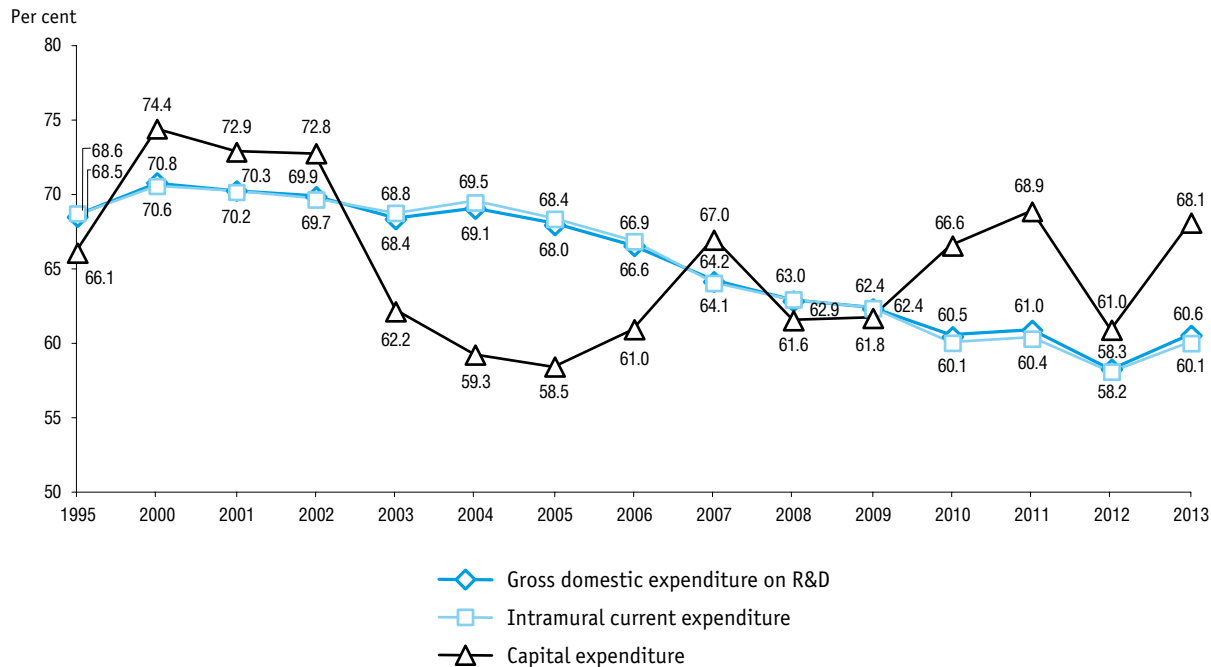
	Total	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
<i>At current prices, thousand roubles, 1995 – million roubles</i>						
1995	8323907.6	4256825.1	3639140.1	822.4	486.8	426633.2
2000	54288781.4	24674880.5	22199361.6	23662.7	18968.0	7371908.6
2001	73976244.8	36274467.0	30729121.5	46348.3	149323.7	6776984.3
2002	94336248.9	47710158.8	38602812.7	28047.5	63017.2	7932212.7
2003	116247853.0	59896801.9	44401742.9	77901.7	204665.7	11666740.8
2004	135408690.9	71716243.4	51502628.6	46246.5	71105.3	12072467.1
2005	156880029.0	84032725.4	58460580.8	46809.5	14570.8	14325342.5
2006	192484851.0	100122872.7	68769254.4	34681.0	160678.6	23397364.3
2007	238386207.4	131768069.7	87352197.2	616853.5	163906.9	18485180.1
2008	271206280.5	151975682.0	99123835.8	43931.1	468252.7	19594578.9
2009	303051131.5	173872629.4	104955691.5	60958.8	238908.1	23922943.7
2010	316701679.9	203267110.6	101760706.5	75409.3	427247.1	11171206.4
2011	372088873.4	218291814.8	134043614.4	376915.9	806970.4	18569557.9
2012	408284378.5	246761318.2	143181603.7	240986.2	152505.3	17947965.1
2013	454409251.0	279358934.6	161100909.7	515567.0	88727.4	13345112.3

(continued)

	Total	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
	Per cent					
1995	100	51.1	43.7	0.01	0.01	5.1
2000	100	45.5	40.9	0.04	0.03	13.6
2001	100	49.0	41.5	0.06	0.2	9.2
2002	100	50.6	40.9	0.03	0.07	8.4
2003	100	51.5	38.2	0.07	0.2	10.0
2004	100	53.0	38.0	0.03	0.05	8.9
2005	100	53.6	37.3	0.03	0.01	9.1
2006	100	52.0	35.7	0.02	0.08	12.2
2007	100	55.3	36.6	0.3	0.07	7.8
2008	100	56.0	36.5	0.02	0.2	7.2
2009	100	57.4	34.6	0.02	0.08	7.9
2010	100	64.2	32.1	0.02	0.1	3.5
2011	100	58.7	36.0	0.1	0.2	5.0
2012	100	60.4	35.1	0.06	0.04	4.4
2013	100	61.5	35.5	0.1	0.02	2.9

* Including federal budget appropriations and funds of government sector institutions.

5.3.19. SHARE OF THE BUSINESS ENTERPRISE SECTOR IN GROSS DOMESTIC EXPENDITURE ON R&D BY TYPE OF COSTS



5.3.20. GROSS DOMESTIC EXPENDITURE ON R&D IN THE BUSINESS ENTERPRISE SECTOR BY TYPE OF COSTS

(thousand roubles)

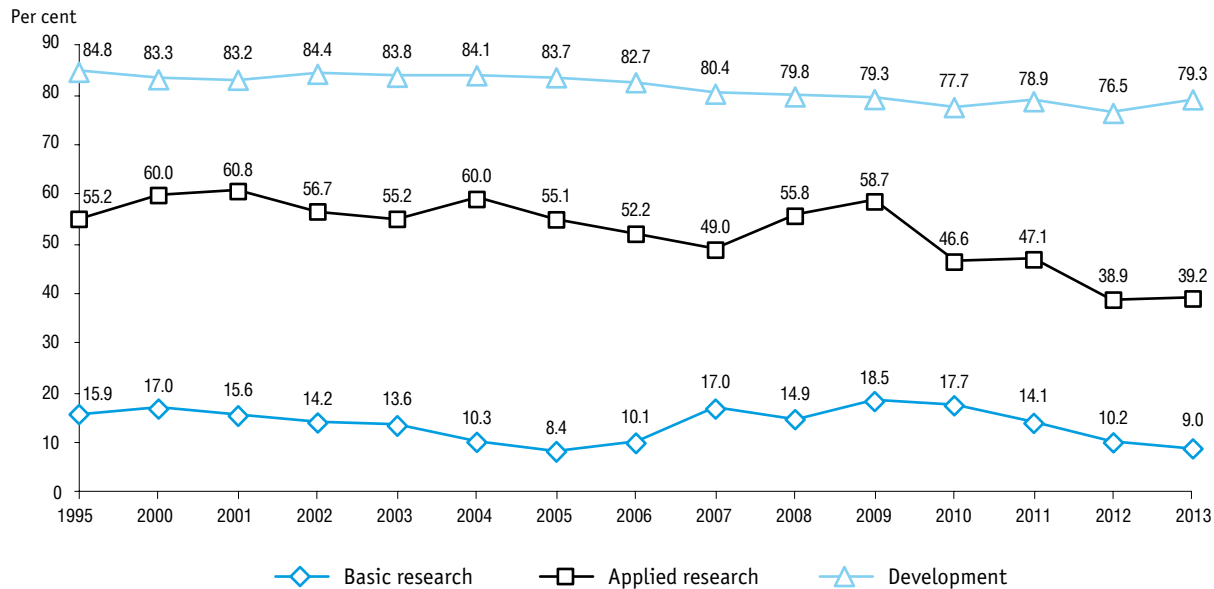
	2005	2008	2009	2010	2011	2012	2013
Gross domestic expenditure on R&D	156880029.0	271206280.5	303051131.5	316701679.9	372088873.4	408284378.5	454409251.0
Intramural current expenditure	151228693.6	258764246.7	287718749.5	294103827.7	343121369.6	380968190.9	420438999.3
Salaries	61762384.5	111090128.0	121823001.2	134771346.7	154670826.0	163680881.0	184301583.4
Of which for R&D personnel*	56579998.4	101472026.7	108594895.7	123576290.3	141005622.8	149328527.6	168490249.3
Social security payments	14652167.0	22451593.2	23934238.6	26089246.1	37534823.2	39738423.4	44519677.6
Equipment	5919453.8	7747615.5	7583666.7	9955224.5	11788168.9	13822393.6	13592306.5
Of which fixed assets	1630251.3	2159968.1	1799862.2	1879198.4	3304130.3	1866673.0	2215154.0
Other material costs	39963918.4	52972903.9	67227503.5	63367540.7	72417381.8	85310764.1	96060693.9
Other current costs	28930769.9	64502006.1	67150339.5	59920469.7	66710169.7	78415728.8	81964737.9
Capital expenditure	5651335.4	12442033.8	15332382.0	22597852.2	28967503.8	27316187.6	33970251.7
Land and buildings	1208092.5	4802602.2	3483317.9	4950198.0	6068422.7	9006103.9	6020259.0
Equipment	3228403.1	5483899.3	9546423.9	14167838.2	16379917.3	13818410.4	17818744.0
Other capital expenditure	1214839.8	2155532.3	2302640.2	3479816.0	6519163.8	4491673.3	10131248.7

* Excluding those employed on a plural basis and on contracts.

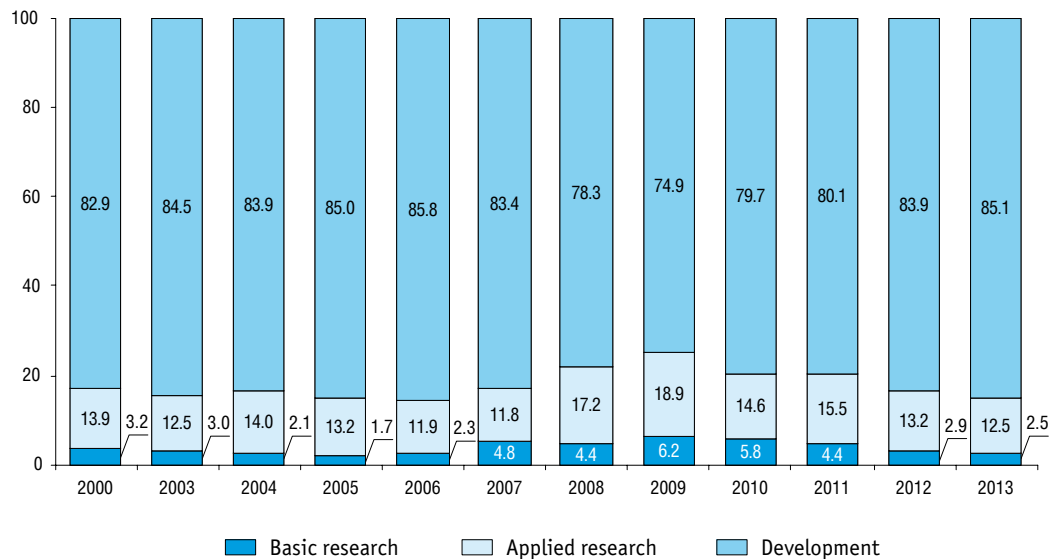
**5.3.21. INTRAMURAL CURRENT EXPENDITURE ON R&D IN THE BUSINESS ENTERPRISE SECTOR
BY TYPE OF ACTIVITY AND FIELD OF SCIENCE AND TECHNOLOGY**
(thousand roubles)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
2005							
Intramural current expenditure on R&D	151228693.6	10041430.0	138455122.3	450558.6	1020195.6	1212995.6	48391.5
Basic research	2591506.7	1025517.8	1205156.9	53282.5	236864.8	47440.2	23244.5
Applied research	20026408.8	5053993.0	13842212.4	184566.8	446665.3	489579.6	9391.7
Development	128610778.1	3961919.2	123407753.0	212709.3	336665.5	675975.8	15755.3
2010							
Intramural current expenditure on R&D	294103827.7	26739368.2	261926531.0	1507276.1	1288239.2	2550402.8	92010.4
Basic research	16935403.4	3875649.0	11521941.3	565100.5	441953.0	467877.0	62882.6
Applied research	42872394.0	10638493.8	29871209.5	595697.1	321868.8	1436993.9	8130.9
Development	234296030.3	12225225.4	220533380.2	346478.5	524417.4	645531.9	20996.9
2011							
Intramural current expenditure on R&D	343121369.6	27124981.9	308923155.3	1872537.9	1304510.0	3743135.2	153049.3
Basic research	15100475.9	3774239.8	9650966.9	615417.0	431079.6	551669.9	77102.7
Applied research	53220149.5	12693760.4	37294694.2	882555.2	311324.7	2011003.0	26812.0
Development	274800744.2	10656981.7	261977494.2	374565.7	562105.7	1180462.3	49134.6
2012							
Intramural current expenditure on R&D	380968190.9	27243077.6	347059349.6	1992378.4	1492477.6	2959975.4	220932.3
Basic research	11034975.2	2857779.7	6972175.3	601995.0	201513.8	371427.0	30084.4
Applied research	50351025.6	10971542.8	35740717.8	1045163.7	684025.7	1855202.6	54373.0
Development	319582190.1	13413755.1	304346456.5	345219.7	606938.1	733345.8	136474.9
2013							
Intramural current expenditure on R&D	420438999.3	27242178.5	387371546.1	1725365.5	695005.3	3272145.6	132758.3
Basic research	10319086.1	2228394.9	6697821.2	570043.5	214.9	817156.1	5455.5
Applied research	52414718.7	11542963.9	37944237.8	910860.1	297745.9	1694730.7	24180.3
Development	357705194.5	13470819.7	342729487.1	244461.9	397044.5	760258.8	103122.5

5.3.22. SHARE OF THE BUSINESS ENTERPRISE SECTOR IN INTRAMURAL CURRENT EXPENDITURE ON R&D BY TYPE OF ACTIVITY



5.3.23. PERCENTAGE DISTRIBUTION OF INTRAMURAL CURRENT EXPENDITURE ON R&D IN THE BUSINESS ENTERPRISE SECTOR BY TYPE OF ACTIVITY



5.3.24. AVERAGE MONTHLY SALARY OF R&D PERSONNEL IN THE BUSINESS ENTERPRISE SECTOR

	1995	2000	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Average monthly salary, <i>roubles, 1995 – thousand roubles</i>	297.6	2519.9	7525.0	9599.6	11744.8	15203.6	19345.3	21674.1	25359.7	29174.9	33165.2	36540.8
As a percentage of that:												
in the national economy (=100%)	63.0	113.3	111.7	112.2	110.4	111.8	111.9	116.3	121.0	124.8	124.5	122.7
in manufacturing (=100%)	64.9	106.5	109.9	114.0	115.2	118.1	120.5	130.7	132.9	133.9	135.3	135.1
in construction (=100%)	50.6	95.5	103.0	106.2	108.1	106.1	104.2	119.6	119.8	123.2	127.8	131.9

5.4. Higher Education Sector

5.4.1. R&D INSTITUTIONS IN THE HIGHER EDUCATION SECTOR BY TYPE

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	511	526	526	533	539	540	616	603	603	617	696	662	762
Universities and other higher education institutions	395	390	393	402	406	417	500	503	506	517	581	562	673
Research institutes	88	107	108	106	109	106	95	80	78	71	67	54	51
Design and construction project organisations	18	19	17	17	17	14	12	11	11	11	12	12	10
Experimental enterprises	1	2	–	1	–	–	1	1	1	1	2	4	1
Others	9	8	8	7	7	3	8	8	7	17	34	30	27

5.4.2. R&D PERSONNEL IN THE HIGHER EDUCATION SECTOR BY TYPE OF INSTITUTIONS

(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	52065	40787	43120	43414	43500	44473	49059	47595	48498	53290	59454	59469	59247
Universities and other higher education institutions	40015	31110	31774	32105	33942	35179	40440	40003	41767	46776	53944	53699	54092
Research institutes	9458	7254	8550	8565	7021	7294	6609	5522	4995	4796	3904	3070	2864
Design and construction project organisations	2170	2198	2306	2189	1991	1878	1843	1783	1446	1392	1197	1830	1502
Experimental enterprises	23	4	–	15	–	–	2	1	2	2	8	9	...*
Others	399	221	490	540	546	122	165	286	288	324	401	861	775

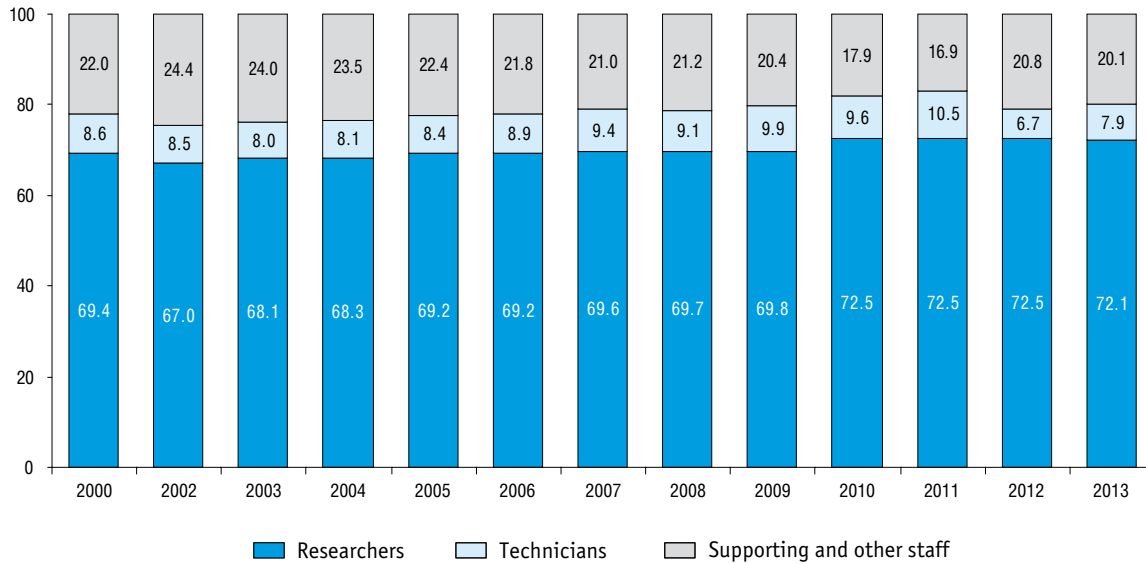
* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

5.4.3. R&D PERSONNEL IN THE HIGHER EDUCATION SECTOR BY OCCUPATION

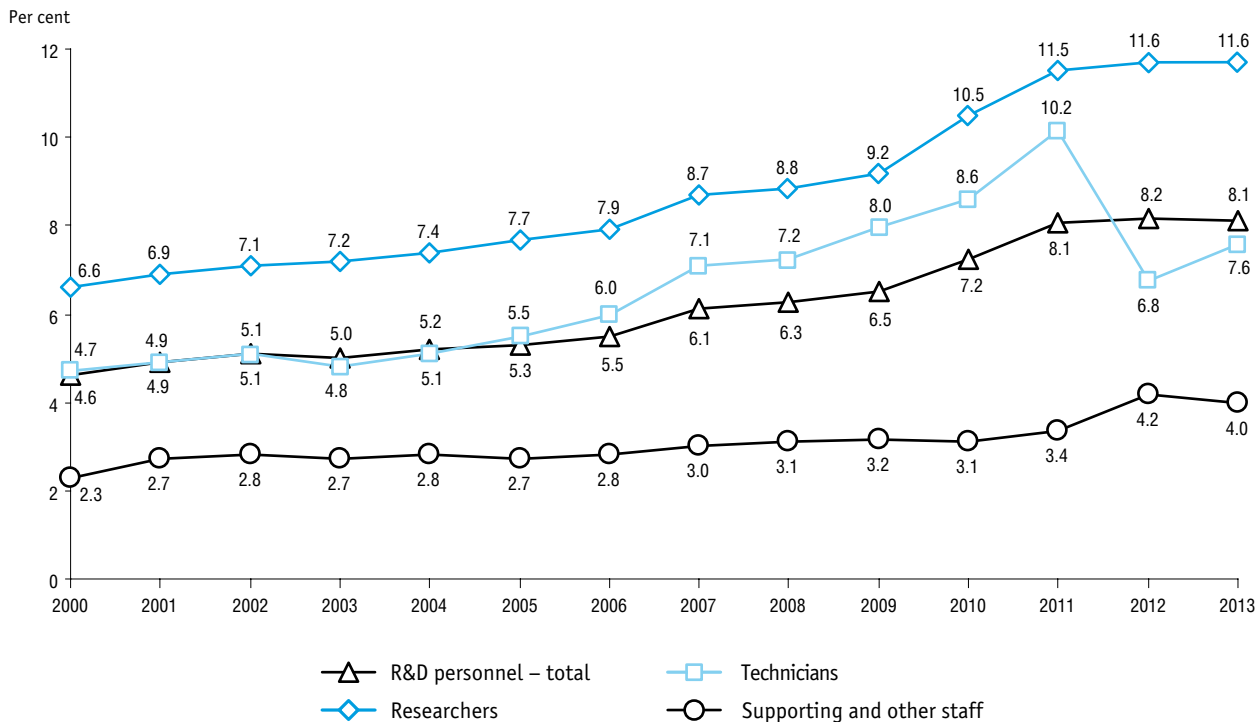
(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	52065	40787	43120	43414	43500	44473	49059	47595	48498	53290	59454	59469	59247
Researchers	35508	28325	29346	29670	30111	30793	34162	33160	33847	38640	43121	43103	42692
Technicians	4010	3509	3434	3534	3658	3972	4606	4349	4778	5095	6256	3998	4670
Supporting staff	7520	5463	6695	6607	6098	5945	6282	6520	6198	6564	7345	9264	8828
Others	5027	3490	3645	3603	3633	3763	4009	3566	3675	2991	2732	3104	3057

5.4.4. PERCENTAGE DISTRIBUTION OF R&D PERSONNEL IN THE HIGHER EDUCATION SECTOR BY OCCUPATION



5.4.5. SHARE OF THE HIGHER EDUCATION SECTOR IN TOTAL R&D PERSONNEL BY OCCUPATION



5.4.6. R&D PERSONNEL IN THE HIGHER EDUCATION SECTOR BY EDUCATIONAL ATTAINMENT (headcount)

	Total	University degrees	Other post-secondary degrees	Other degrees
R&D personnel				
2005	43500	35159	4430	3911
2009	48498	40456	4424	3618
2010	53290	46112	3394	3784
2011	59454	52965	2811	3678
2012	59469	52334	2673	4462
2013	59247	52927	2625	3695
Researchers				
2005	30111	30111	–	–
2009	33847	33847	–	–
2010	38640	38640	–	–
2011	43121	43121	–	–
2012	43103	43103	–	–
2013	42692	42692	–	–
Technicians				
2005	3658	1079	2082	497
2009	4778	1861	2125	792
2010	5095	2460	1526	1109
2011	6256	3896	1270	1090
2012	3998	1755	987	1256
2013	4670	2570	919	1181

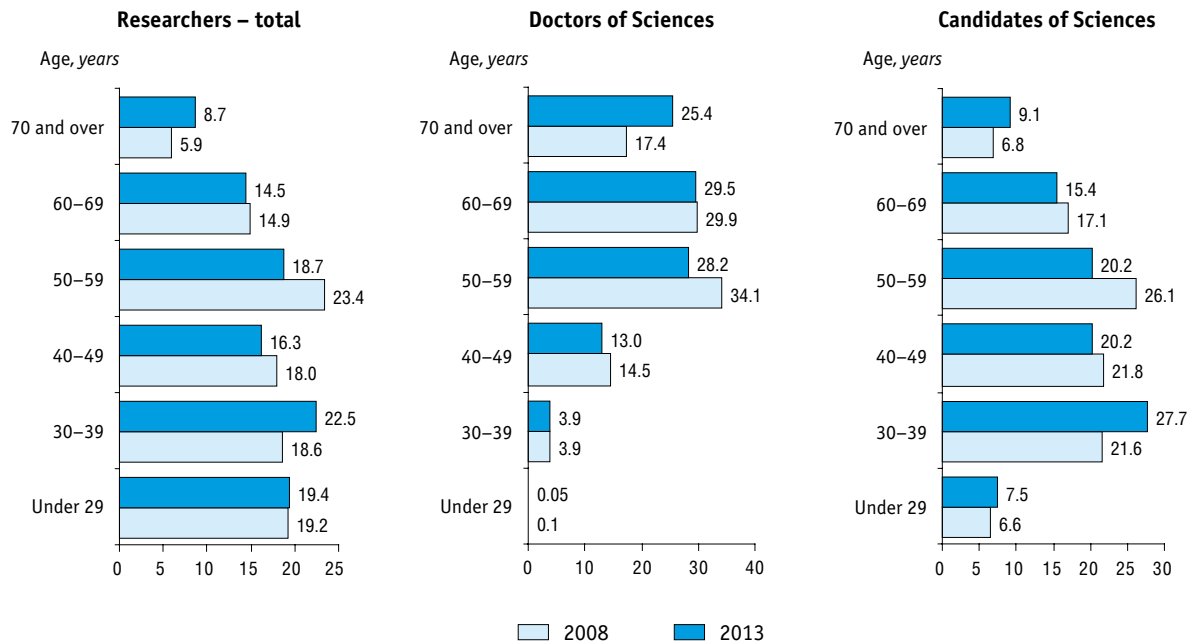
(continued)

	Total	University degrees	Other post-secondary degrees	Other degrees
Supporting staff				
2005	6098	2758	1465	1875
2009	6198	3337	1357	1504
2010	6564	3695	1190	1679
2011	7345	4438	1126	1781
2012	9264	5950	1093	2221
2013	8828	5917	1129	1782
Others				
2005	3633	1211	883	1539
2009	3675	1411	942	1322
2010	2991	1317	678	996
2011	2732	1510	415	807
2012	3104	1526	593	985
2013	3057	1748	577	732

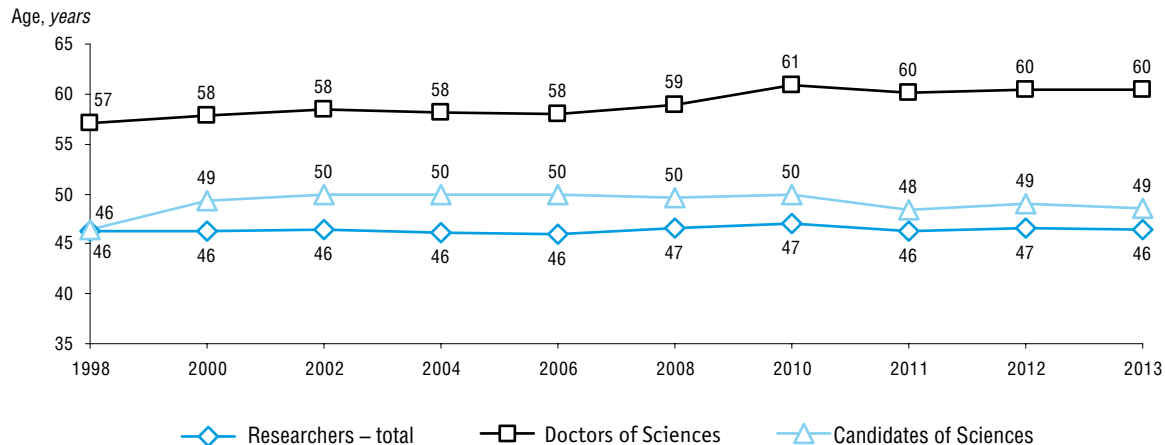
5.4.7. RESEARCHERS IN THE HIGHER EDUCATION SECTOR BY GENDER AND AGE GROUP

	2008			2013		
	Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Total	33160	3439	12040	42692	5638	18668
<i>Age, years:</i>						
under 29	6379	4	792	8285	3	1399
30–39	6164	133	2606	9616	222	5164
40–49	5964	499	2619	6939	733	3770
50–54	3999	547	1603	4039	730	1929
55–59	3760	627	1544	3929	858	1833
60–69	4937	1029	2055	6181	1662	2877
70 and over	1957	600	821	3703	1430	1696
Male	19506	2538	6770	23017	3921	9308
<i>Age, years:</i>						
under 29	4055	3	448	4853	3	767
30–39	3284	94	1353	4769	133	2446
40–49	3298	349	1412	3301	450	1721
50–54	2951	384	909	1993	477	851
55–59	2224	450	928	2110	563	941
60–69	3063	791	1205	3683	1223	1668
70 and over	1231	467	515	2308	1072	914
Female	13654	901	5270	19675	1717	9360
<i>Age, years:</i>						
under 29	2324	1	344	3432	–	632
30–39	2880	39	1253	4847	89	2718
40–49	2666	150	1207	3638	283	2049
50–54	1648	163	694	2046	253	1078
55–59	1536	177	616	1819	295	892
60–69	1874	238	850	2498	439	1209
70 and over	726	133	306	1395	358	782

5.4.8. PERCENTAGE DISTRIBUTION OF RESEARCHERS IN THE HIGHER EDUCATION SECTOR BY AGE GROUP



5.4.9. AVERAGE AGE OF RESEARCHERS IN THE HIGHER EDUCATION SECTOR

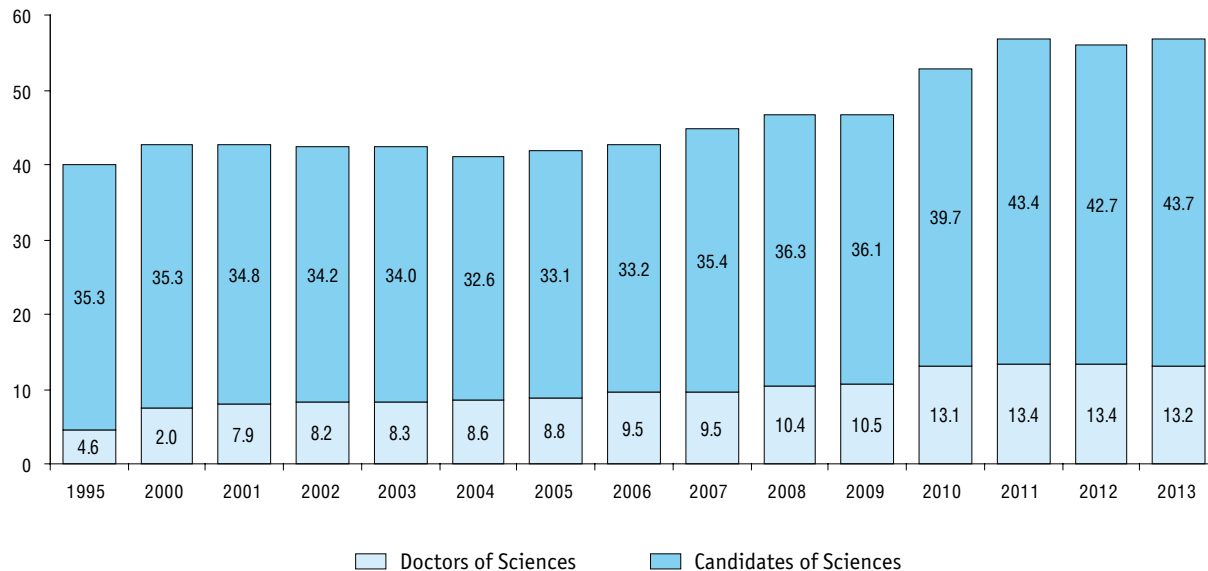


5.4.10. RESEARCHERS WITH SCIENTIFIC DEGREES IN THE HIGHER EDUCATION SECTOR

(headcount)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Researchers with scientific degrees	14162	12113	12432	12212	12618	13153	15330	15479	15774	20423	24502	24144	24306
Doctors of Sciences	1617	2120	2447	2538	2654	2924	3252	3439	3568	5068	5774	5753	5638
Candidates of Sciences	12545	9993	9985	9674	9964	10229	12078	12040	12206	15355	18728	18391	18668

5.4.11. RESEARCHERS WITH SCIENTIFIC DEGREES AS A PERCENTAGE OF THE TOTAL NUMBER OF RESEARCHERS IN THE HIGHER EDUCATION SECTOR



5.4.12. RESEARCHERS IN THE HIGHER EDUCATION SECTOR BY FIELD OF SCIENCE AND TECHNOLOGY (headcount)

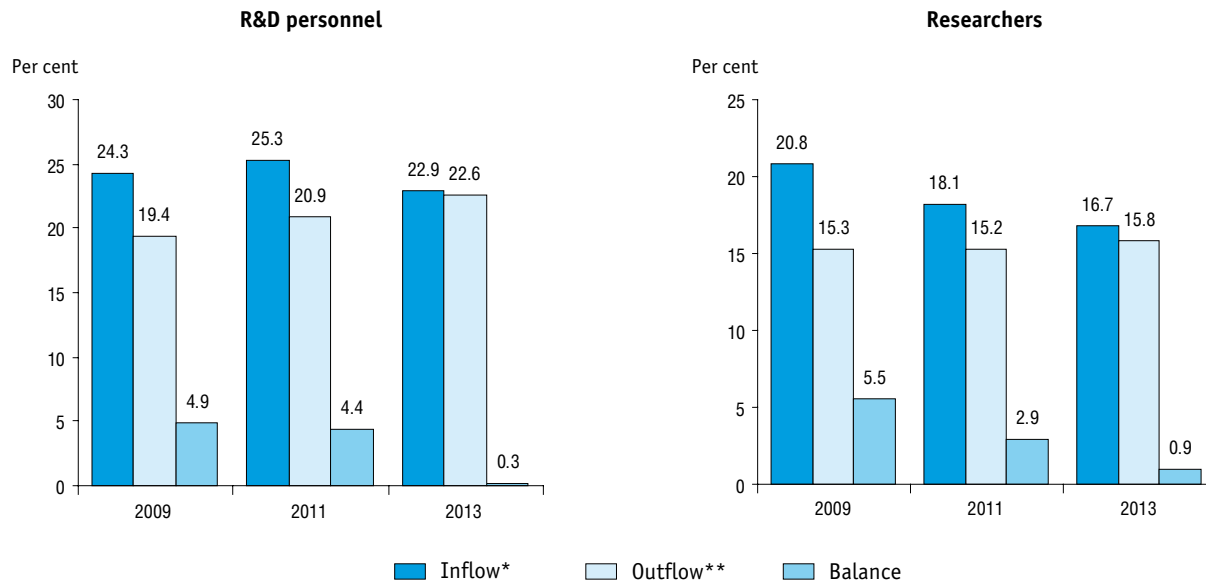
	2008			2011			2012			2013		
	Researchers	Of whom		Researchers	Of whom		Researchers	Of whom		Researchers	Of whom	
		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences		Doctors of Sciences	Candidates of Sciences
Total	33160	3439	12040	43121	5774	18728	43103	5753	18391	42692	5638	18668
Natural sciences	13111	1535	5244	13897	2198	6770	13495	2216	6344	13004	2177	6341
Engineering	10524	484	2352	12515	737	3121	12130	753	3099	11989	716	3088
Medical sciences	2403	441	1142	2419	504	1219	2613	453	1074	2032	458	999
Agricultural sciences	933	116	416	1730	320	908	1153	241	621	1275	235	653
Social sciences	4309	512	1818	7878	1168	4271	8395	1206	4430	9367	1280	5052
Humanities	1880	351	1068	4682	847	2439	5317	884	2823	5025	772	2535

5.4.13. FLOWS OF R&D PERSONNEL IN THE HIGHER EDUCATION SECTOR BY OCCUPATION

(headcount)

	Number at the beginning of the reference year	Inflow				Outflow				Number at the end of the reference year
		Total	Of whom			Total	Of which			
			graduates from higher education institutions	from other research institutes	others		voluntary turnover	due to staff reduction	for other reasons	
Total										
2005	41601	8770	1475	1388	5907	6871	4096	25	2750	43500
2009	45565	11766	2005	1583	8178	8833	4805	160	3868	48498
2011	56117	15068	2579	1578	10911	11731	6151	64	5516	59454
2013	59043	13561	1648	2104	9809	13357	6381	212	6764	59247
Reseachers										
2005	28951	5219	1229	1058	2932	4062	2470	16	1576	30111
2009	31619	7055	1465	1218	4372	4823	2614	80	2129	33847
2011	41648	7823	1707	1156	4960	6347	3639	42	2666	43121
2013	42229	7140	903	1604	4633	6663	3584	134	2945	42692
Technicians										
2005	3451	1030	114	115	801	820	467	1	352	3658
2009	4352	1960	324	198	1438	1535	823	29	683	4778
2011	4713	3267	398	136	2733	1723	924	8	791	6256
2013	4490	2260	277	187	1796	2081	870	37	1174	4670
Supporting and other staff										
2005	9199	2521	132	215	2174	1989	1159	8	822	9731
2009	9594	2751	216	167	2368	2475	1368	51	1056	9873
2011	9756	3978	474	286	3218	3661	1588	14	2059	10077
2013	12324	4161	468	313	3380	4613	1927	41	2645	11885

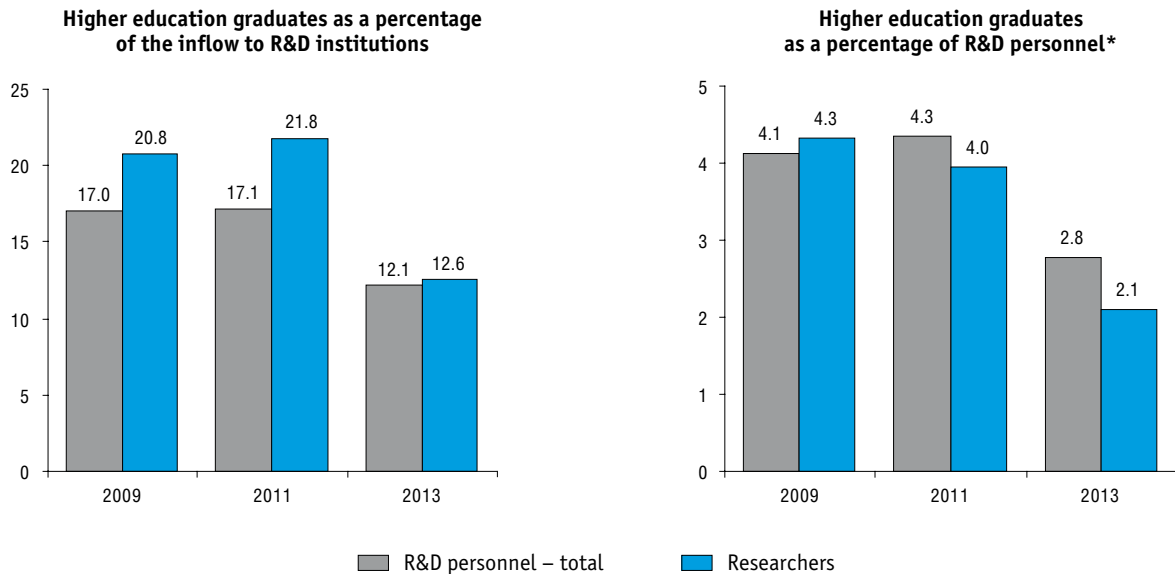
5.4.14. INFLOW AND OUTFLOW OF R&D PERSONNEL IN THE HIGHER EDUCATION SECTOR



* The ratio of the R&D personnel admitted during the year to the number of employees at the end of the year.

** The ratio of the R&D personnel having resigned during the year to the number of employees at the beginning of the year.

5.4.15. INFLOW OF HIGHER EDUCATION GRADUATES TO R&D INSTITUTIONS IN THE HIGHER EDUCATION SECTOR



* The ratio of the higher education graduates admitted during the year to the number of employees at the end of the year.

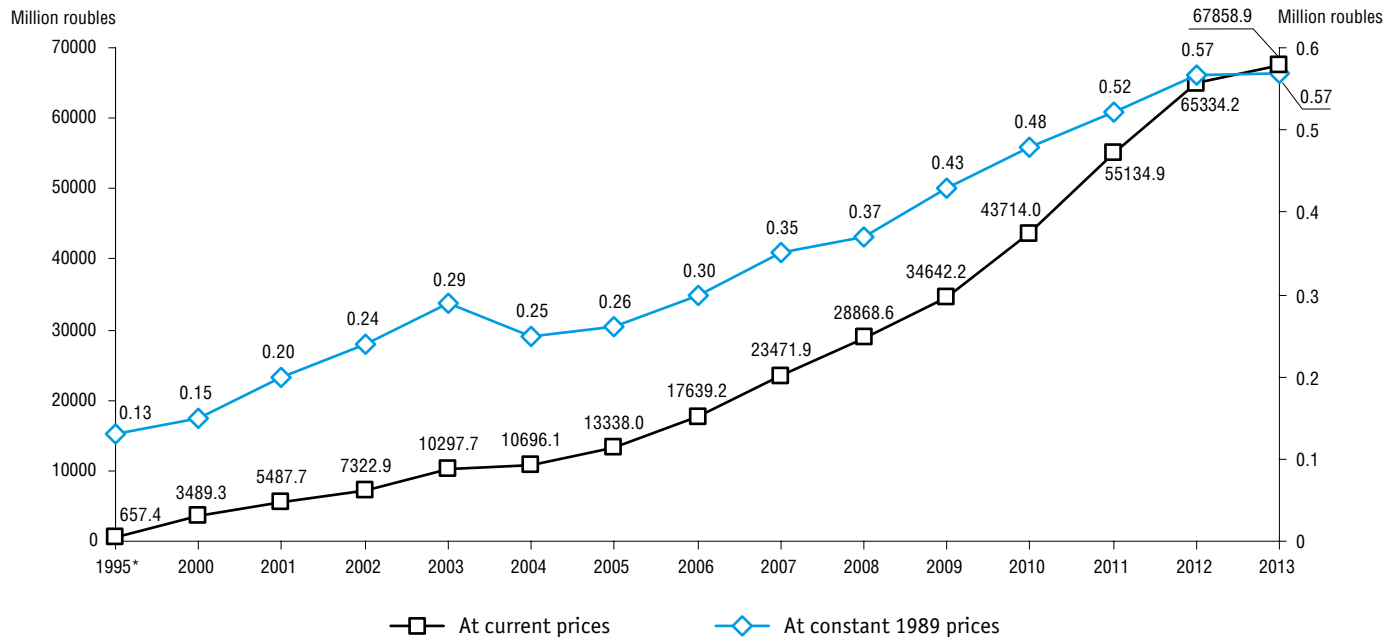
5.4.16. GROSS DOMESTIC EXPENDITURE ON R&D IN THE HIGHER EDUCATION SECTOR BY TYPE OF INSTITUTIONS

(thousand roubles)

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	3489342.2	13337987.1	17639173.8	23471870.9	28868566.7	34642216.7	43714007.3	55134893.9	65334232.1	67858855.1
Universities and other higher education institutions	2777397.1	10963094.5	14672493.3	20110291.8	25254713.6	30815022.6	38787366.4	51055347.1	59717923.7	63138131.0
Research institutes	528449.7	1596818.1	2362999.9	2444732.5	2552781.1	2874500.2	3429235.6	2935458.1	3571846.1	3022702.5
Design and construction project organisations	157818.5	519987.1	600446.4	875313.6	869259.6	758521.1	984428.5	809586.0	1344028.6	1090711.3
Experimental enterprises	78.5	–	–	14145.0	24376.0	22657.0	26584.0	12042.6	14652.7	...*
Others	25598.4	258087.4	3234.2	27388.0	167436.4	171515.8	486392.8	322460.1	685781.0	596309.4

* The data are not published in order to ensure the confidentiality of the primary statistics received from organisations, in accordance with the Federal Law of 29.11.2007 № 282-FZ "On the official statistical accounting and state statistics system in the Russian Federation" (Art. 4, par. 5; Art. 9, par. 1).

5.4.17. GROSS DOMESTIC EXPENDITURE ON R&D IN THE HIGHER EDUCATION SECTOR



* Billion roubles.

5.4.18. GROSS DOMESTIC EXPENDITURE ON R&D IN THE HIGHER EDUCATION SECTOR BY SOURCE OF FUNDS

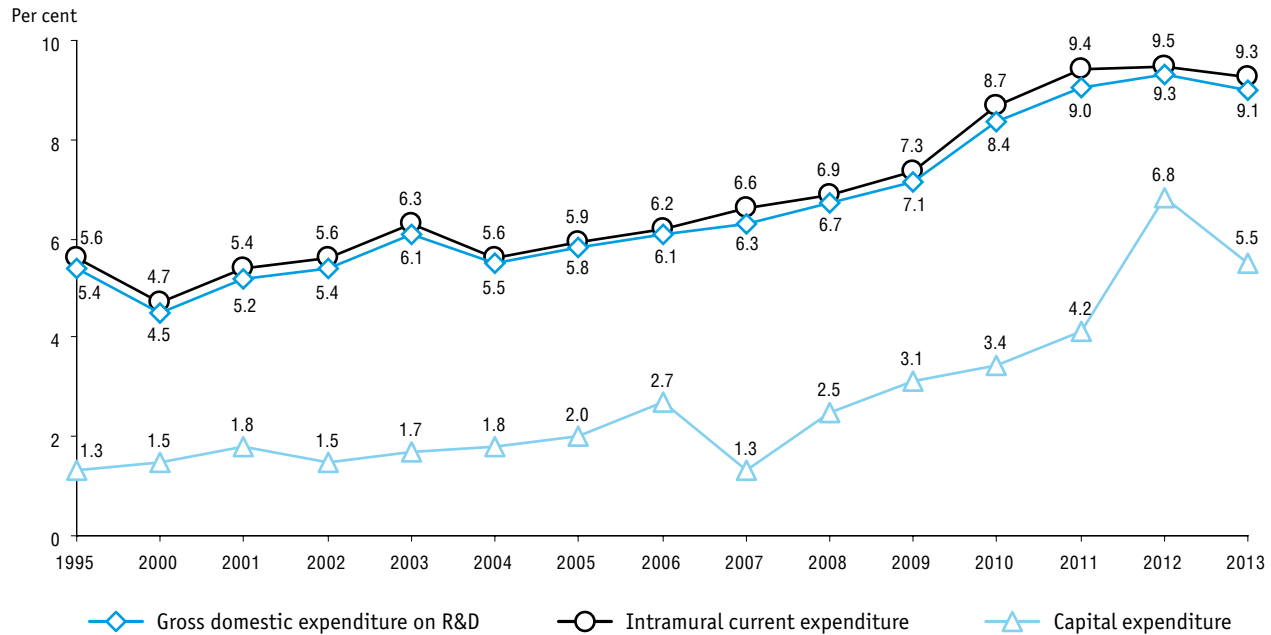
	Total	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
At current prices, thousand roubles, 1995 – million roubles						
1995	657374.0	440429.9	181015.3	27407.6	1279.1	7242.1
2000	3489342.2	2220574.3	951898.2	178004.2	6651.5	132214.0
2001	5487653.7	3443940.3	1454005.4	297109.0	8069.0	284530.0
2002	7322943.2	4458540.7	1989239.9	382058.3	12154.0	480950.3
2003	10297745.0	6294220.6	2870119.3	704239.2	12759.1	416406.8
2004	10696125.8	6269141.4	3488281.5	597899.1	8162.1	332641.7
2005	13337987.1	7982229.6	3911201.8	889069.7	20503.0	534983.0
2006	17639173.8	10350996.7	5169607.6	1505274.5	26181.7	587113.3
2007	23471870.9	13931491.1	7267861.9	1573278.8	64898.0	634341.1
2008	28868566.7	18003735.9	8244450.2	1758509.8	84419.2	777451.6
2009	34642216.7	24181368.4	7769897.9	1741764.5	95595.8	853590.1
2010	43714007.3	30017817.7	10724045.9	2154774.3	55055.8	762313.6
2011	55134893.9	37047554.1	13224580.6	4030900.0	93584.3	738274.9
2012	65334232.1	40803297.5	17709405.2	5441235.5	371292.2	1009001.7
2013	67858855.1	40378679.8	18663427.9	7080091.0	448892.7	1287763.7

* Including federal budget appropriations, general university funds and funds of government sector institutions.

(continued)

	Total	Government*	Business enterprise sector	Higher education sector	Private non-profit sector	Funds from abroad
	Per cent					
1995	100	67.0	27.5	4.2	0.2	1.1
2000	100	63.6	27.3	5.1	0.2	3.8
2001	100	62.8	26.5	5.4	0.1	5.2
2002	100	60.9	27.2	5.2	0.2	6.6
2003	100	61.1	27.9	6.8	0.1	4.0
2004	100	58.6	32.6	5.6	0.08	3.1
2005	100	59.8	29.3	6.7	0.2	4.0
2006	100	58.7	29.3	8.5	0.1	3.3
2007	100	59.4	31.0	6.7	0.3	2.7
2008	100	62.4	28.6	6.1	0.3	2.7
2009	100	69.8	22.4	5.0	0.3	2.5
2010	100	68.7	24.5	4.9	0.1	1.7
2011	100	67.2	24.0	7.3	0.2	1.3
2012	100	62.5	27.1	8.3	0.6	1.5
2013	100	59.5	27.5	10.4	0.7	1.9

5.4.19. SHARE OF THE HIGHER EDUCATION SECTOR IN GROSS DOMESTIC EXPENDITURE ON R&D BY TYPE OF COSTS



5.4.20. GROSS DOMESTIC EXPENDITURE ON R&D IN THE HIGHER EDUCATION SECTOR BY TYPE OF COSTS
(thousand roubles)

	2005	2008	2009	2010	2011	2012	2013
Gross domestic expenditure on R&D	13337987.1	28868566.7	34642216.7	43714007.3	55134893.9	65334232.1	67858855.1
Intramural current expenditure	13144292.5	28355126.5	33871885.4	42552245.4	53389079.3	62268471.4	65103832.7
Salaries	6952057.5	16969730.8	20240278.6	25267352.4	31150804.4	35432527.8	37483889.6
Of which for R&D personnel*	3552276.8	9350228.8	11592673.2	14033490.5	16496816.3	19671272.1	21683297.6
Social security payments	1654258.7	3734321.1	4387314.1	5260709.4	7630274.5	8475705.7	8920077.8
Equipment	917350.6	1642182.0	2733966.8	2639343.7	2969583.7	3336796.8	3288338.4
Of which fixed assets	640478.5	940687.6	2321870.7	1713278.2	1510968.8	1845767.0	1601355.0
Other material costs	1501392.4	2284544.3	2358266.0	3344896.4	3695390.0	5072129.7	5585226.3
Other current costs	2119233.3	3724348.3	4152059.9	6039943.5	7943026.7	9951311.4	9826300.6
Capital expenditure	193694.6	513440.2	770331.3	1161761.9	1745814.6	3065760.7	2755022.4
Land and buildings	39711.4	1571.3	12677.4	14186.1	67000.0	106798.5	233349.2
Equipment	104359.6	480070.1	724609.8	1068873.2	1622614.3	2688993.0	2133749.9
Other capital expenditure	49623.6	31798.8	33044.1	78702.6	56200.3	269969.2	387923.3

* Excluding those employed on a plural basis and on contracts.

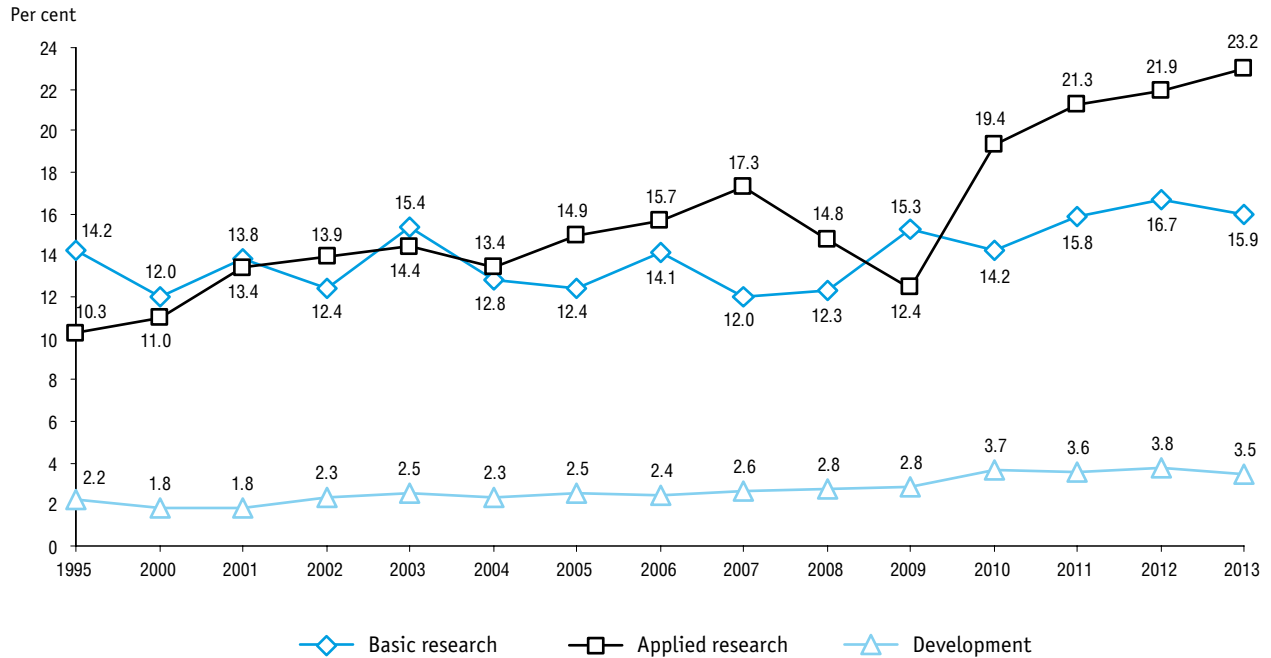
**5.4.21. INTRAMURAL CURRENT EXPENDITURE ON R&D IN THE HIGHER EDUCATION SECTOR BY TYPE OF ACTIVITY
AND FIELD OF SCIENCE AND TECHNOLOGY**
(thousand roubles)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
2005							
Intramural current expenditure on R&D	13144292.5	3896908.4	6853399.7	378448.2	200121.3	1419552.8	395862.1
Basic research	3841327.6	2342791.4	751584.6	147772.6	31818.6	342156.9	225203.5
Applied research	5405410.3	1112036.2	2918946.4	161855.9	121828.4	949311.8	141431.6
Development	3897554.6	442080.8	3182868.7	68819.7	46474.3	128084.1	29227.0
2010							
Intramural current expenditure on R&D	42552245.4	12076614.1	20864675.6	1309942.7	730315.2	6137791.2	1432906.6
Basic research	13647906.8	7585787.8	2819934.7	472436.1	145701.5	1919937.8	704108.9
Applied research	17804762.0	3177035.8	9056919.5	680400.6	486773.7	3723764.3	679868.1
Development	11099576.6	1313790.5	8987821.4	157106.0	97840.0	494089.1	48929.6
2011							
Intramural current expenditure on R&D	53389079.3	15437217.8	24872185.8	1998847.3	1205802.3	7979786.2	1895239.9
Basic research	16943421.4	9245084.1	3405025.7	796436.8	179798.8	2145551.0	1171525.0
Applied research	24053848.5	4636085.0	11696505.8	982826.2	797822.7	5297493.2	643115.6
Development	12391809.4	1556048.7	9770654.3	219584.3	228180.8	536742.0	80599.3

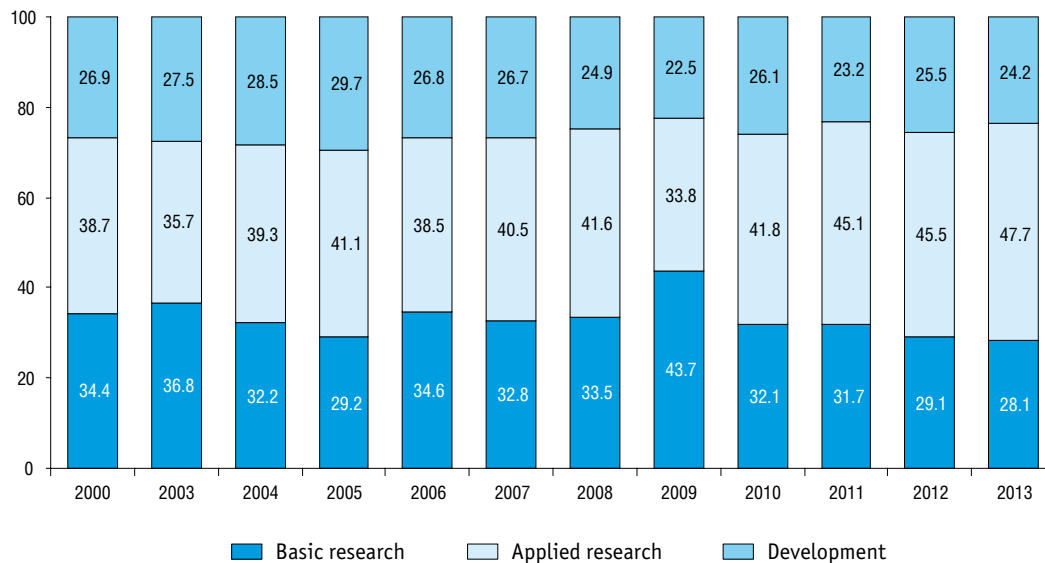
(continued)

	Total	Natural sciences	Engineering	Medical sciences	Agricultural sciences	Social sciences	Humanities
2012							
Intramural current expenditure on R&D	62268471.4	16680876.1	29103142.6	2423858.7	1335727.7	9954116.6	2770749.7
Basic research	18092897.7	9987728.3	2764446.8	790365.8	228012.1	2720694.0	1601650.5
Applied research	28324950.6	4983014.1	14319866.5	1283660.8	903775.9	5941367.0	8932666.3
Development	15850623.1	1710133.7	12018829.3	349832.1	203939.7	1292055.4	275832.9
2013							
Intramural current expenditure on R&D	65103832.7	17390347.8	29875049.0	2969687.3	1342285.6	10615711.4	2910751.6
Basic research	18292483.8	9321872.1	3188442.9	899868.3	184993.8	3200249.8	1497056.9
Applied research	31034270.9	6043026.6	15030689.6	1593736.0	898069.9	6307037.3	1161711.5
Development	15777078.0	2025449.1	11655916.5	476083.0	259221.9	1108424.3	251983.2

5.4.22. SHARE OF THE HIGHER EDUCATION SECTOR IN INTRAMURAL CURRENT EXPENDITURE ON R&D BY TYPE OF ACTIVITY



5.4.23. PERCENTAGE DISTRIBUTION OF INTRAMURAL CURRENT EXPENDITURE ON R&D IN THE HIGHER EDUCATION SECTOR BY TYPE OF ACTIVITY



5.4.24. AVERAGE MONTHLY SALARY OF R&D PERSONNEL IN THE HIGHER EDUCATION SECTOR

	1995	2000	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Average monthly salary, roubles, 1995 – thousand roubles	280.1	1400.3	5088.8	7042.0	8348.7	12233.1	16812.7	21191.5	23716.4	24963.9	30915.1	34101.0
As a percentage of that:												
in the national economy (=100%)	59.3	63.0	75.5	82.3	78.5	90.0	97.2	113.7	113.2	106.8	115.3	114.6
in manufacturing (=100%)	61.1	59.2	74.3	83.6	81.9	95.0	104.8	127.8	124.3	114.6	125.3	126.2
in construction (=100%)	47.7	53.0	69.7	77.9	76.8	85.3	90.5	116.9	112.0	105.4	118.4	123.3



6. R&D Output

6.1. PUBLICATIONS OF RUSSIAN AUTHORS IN SCIENTIFIC JOURNALS INDEXED IN SCOPUS BY DOCUMENT TYPE

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Publications – total	31 474	32 519	32 742	33 560	36 324	38 770	34 850	35 414	36 544	38 035	39 213	42 575	44 059	45 965
Articles	28 458	28 701	26 888	27 278	28 417	28 918	26 292	27 836	29 569	31 059	31 274	33 525	32 552	36 699
Conference papers	2 210	3 015	4 754	4 774	6 397	8 022	7 009	6 325	5 563	5 484	6 284	6 479	7 507	6 812
Reviews	639	576	793	1 121	1 150	1 426	1 038	698	680	675	787	1 173	1 377	1 184
Other	167	227	307	387	360	404	511	555	732	817	868	1 398	2 623	1 270

6.2. PUBLICATIONS OF RUSSIAN AUTHORS IN SCIENTIFIC JOURNALS INDEXED IN WEB OF SCIENCE BY DOCUMENT TYPE*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Publications – total	32 677	29 839	31 271	29 889	30 701	30 542	29 635	31 200	33 414	33 679	32 312	33 881	33 907	35 436
Articles	27 016	25 206	25 606	24 966	24 765	24 382	23 775	25 068	26 917	27 599	26 838	28 465	27 674	28 923
Conference papers	7 287	6 354	7 081	6 719	6 797	6 443	5 789	5 901	5 070	4 568	3 296	2 856	3 163	2 829
Reviews	632	591	613	673	712	681	749	773	865	878	771	728	799	851
Other	1 361	1 122	1 618	1 165	1 825	2 132	2 127	2 232	2 610	2 483	2 690	2 740	2 753	3 328

* Some publications can be classified both as articles and conference papers.

6.3. PUBLICATIONS OF RUSSIAN AUTHORS IN SCIENTIFIC JOURNALS INDEXED IN SCOPUS*

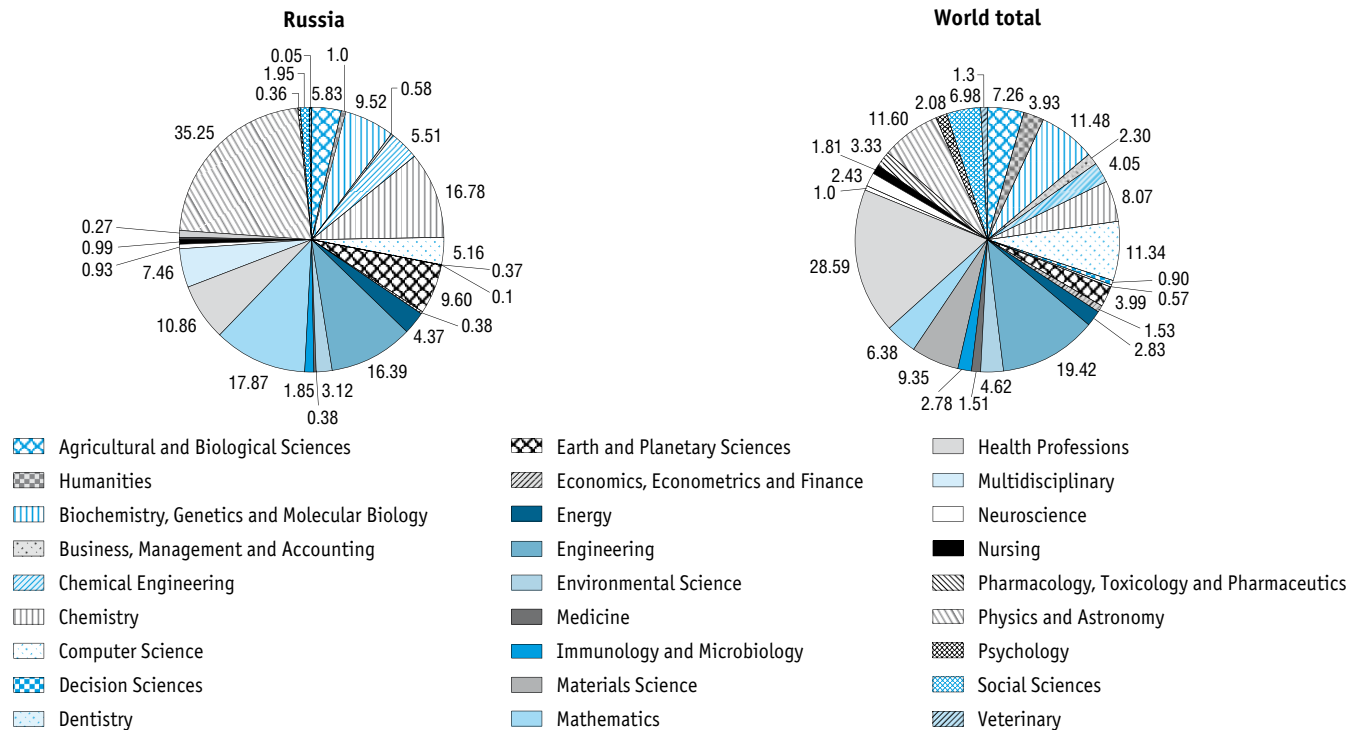


* The term 'publication' refers to 3 types of documents (articles, reviews, and reports).

6.4. PUBLICATIONS OF RUSSIAN AUTHORS IN SCIENTIFIC JOURNALS INDEXED IN WEB OF SCIENCE

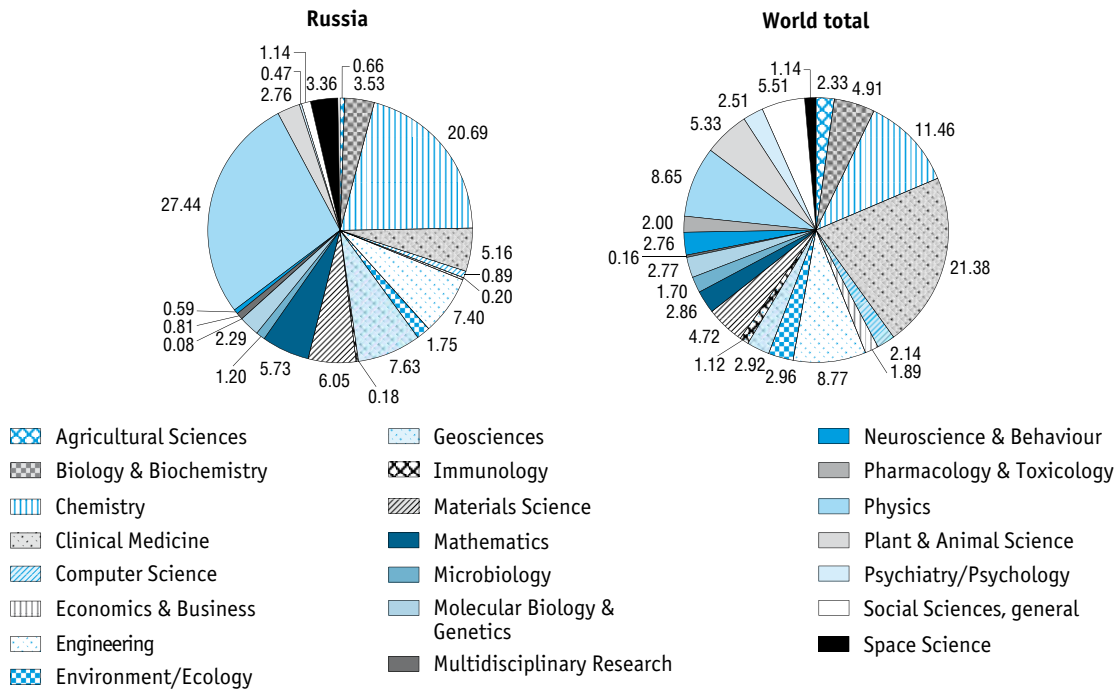


6.5. PERCENTAGE DISTRIBUTION OF PUBLICATIONS OF RUSSIAN AUTHORS IN SCIENTIFIC JOURNALS INDEXED IN SCOPUS BY FIELD OF SCIENCE: 2009–2013*



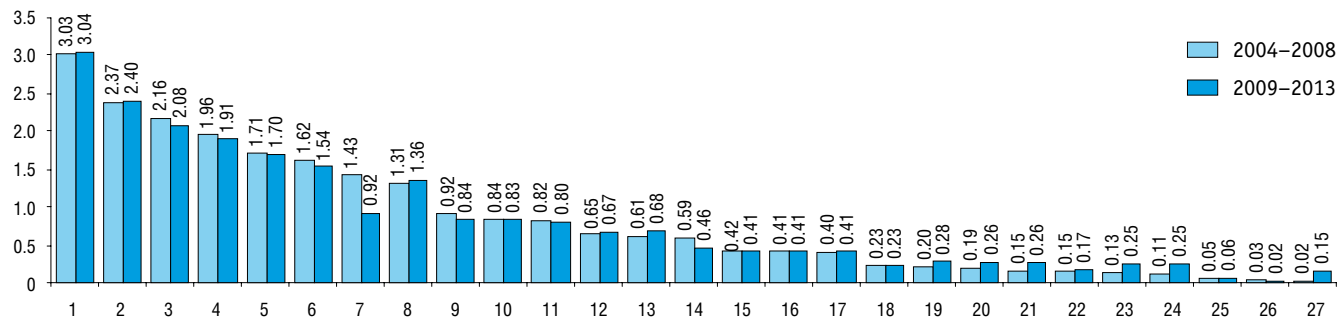
* Source: SCImago Journal & Country Rank.

6.6. PERCENTAGE DISTRIBUTION OF PUBLICATIONS OF RUSSIAN AUTHORS IN SCIENTIFIC JOURNALS INDEXED IN WEB OF SCIENCE BY FIELD OF SCIENCE: 2009–2013 *



* Source: Essential Science Indicators (ESI) by Thomson Reuters.

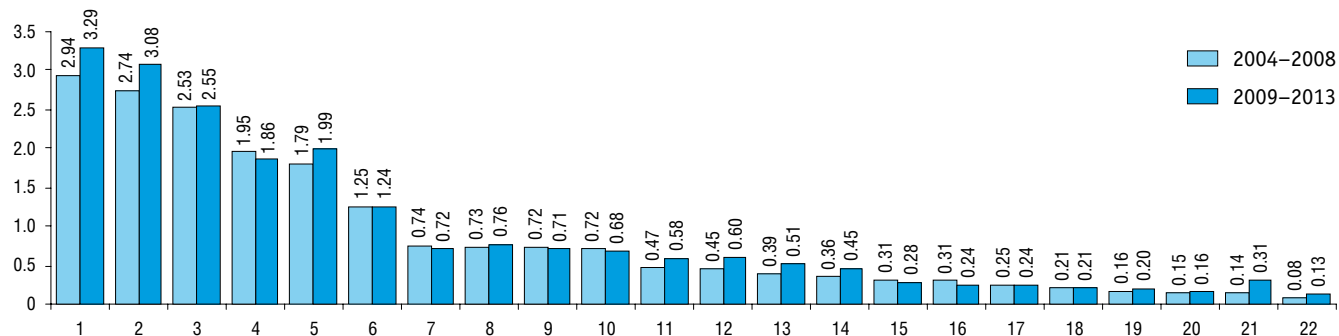
6.7. RUSSIA'S SCIENTIFIC SPECIALISATION INDICES BY PUBLICATIONS IN SCIENTIFIC JOURNALS INDEXED IN SCOPUS BY FIELD OF SCIENCE: 2004–2008 AND 2009–2013



- | | |
|---|---|
| 1 – Physics and Astronomy | 15 – Neuroscience |
| 2 – Earth and Planetary Sciences | 16 – Decision Sciences |
| 3 – Chemistry | 17 – Pharmacology, Toxicology and Pharmaceutics |
| 4 – Materials Science | 18 – Medicine |
| 5 – Mathematics | 19 – Social Sciences |
| 6 – Energy | 20 – Health Professions |
| 7 – Multidisciplinary | 21 – Humanities |
| 8 – Chemical Engineering | 22 – Psychology |
| 9 – Engineering | 23 – Business, Management and Accounting |
| 10 – Biochemistry, Genetics and Molecular Biology | 24 – Economy, Econometrics and Finance |
| 11 – Agricultural and Biological Sciences | 25 – Veterinary |
| 12 – Immunology and Microbiology | 26 – Dentistry |
| 13 – Environmental Science | 27 – Nursing |
| 14 – Computer Science | |

* Source: SCImago Journal & Country Rank.

6.8. RUSSIA'S SCIENTIFIC SPECIALISATION INDICES BY PUBLICATIONS IN SCIENTIFIC JOURNALS INDEXED IN WEB OF SCIENCE BY FIELD OF SCIENCE: 2004–2008 AND 2009–2013*



1 – Physics

2 – Space Science

3 – Geosciences

4 – Chemistry

5 – Mathematics

6 – Materials Science

7 – Biology & Biochemistry

8 – Molecular Biology & Genetics

9 – Engineering

10 – Microbiology

11 – Plant & Animal Science

12 – Environment/Ecology

13 – Neuroscience & Behaviour

14 – Computer Science

15 – Multidisciplinary Research

16 – Agricultural Sciences

17 – Clinical Medicine

18 – Social Sciences, General

19 – Psychiatry/Psychology

20 – Immunology

21 – Pharmacology & Toxicology

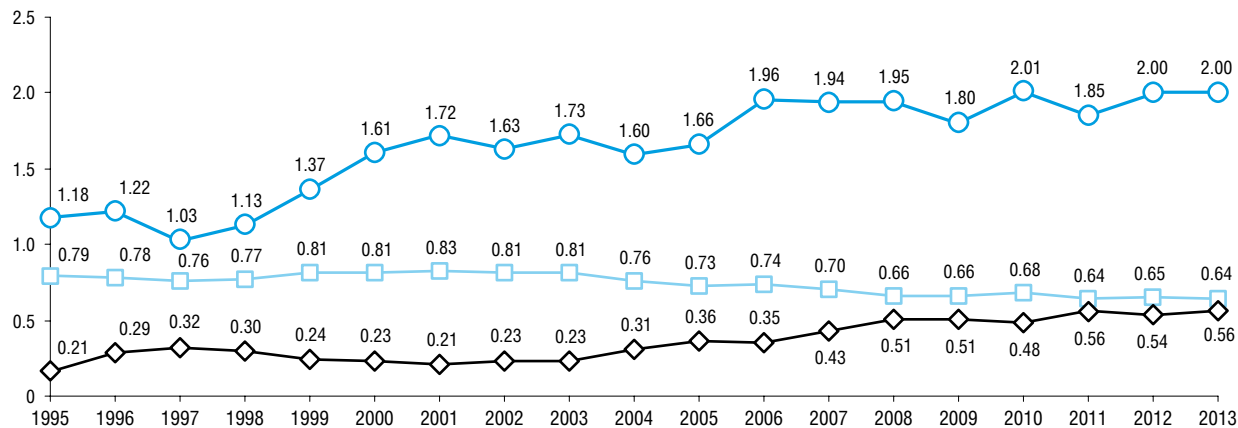
22 – Economics & Business

* Source: Essential Science Indicators (ESI) by Thomson Reuters.

6.9. PATENT APPLICATIONS AND PATENTS GRANTED

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
Patent applications filed in the Russian Federation	22202	28688	32254	37691	39439	41849	38564	42500	41414	44211	44914
By residents	17551	23377	23644	27884	27505	27712	25598	28722	26495	28701	28765
By non-residents	4651	5311	8610	9807	11934	14137	12966	13778	14919	15510	16149
Patents granted in the Russian Federation	31556	17592	23390	23299	23028	28808	34824	30322	29999	32880	31638
To residents	20861	14444	19447	19138	18431	22260	26294	21627	20339	22481	21378
To non-residents	4772	3148	3943	4161	4597	6548	8530	8695	9660	10399	10260
Patents valid with the indication of the Russian Federation	76186	144325	123089	123882	129910	147067	170264	181904	168558	181515	194248

6.10. INDICATORS OF PATENT ACTIVITY



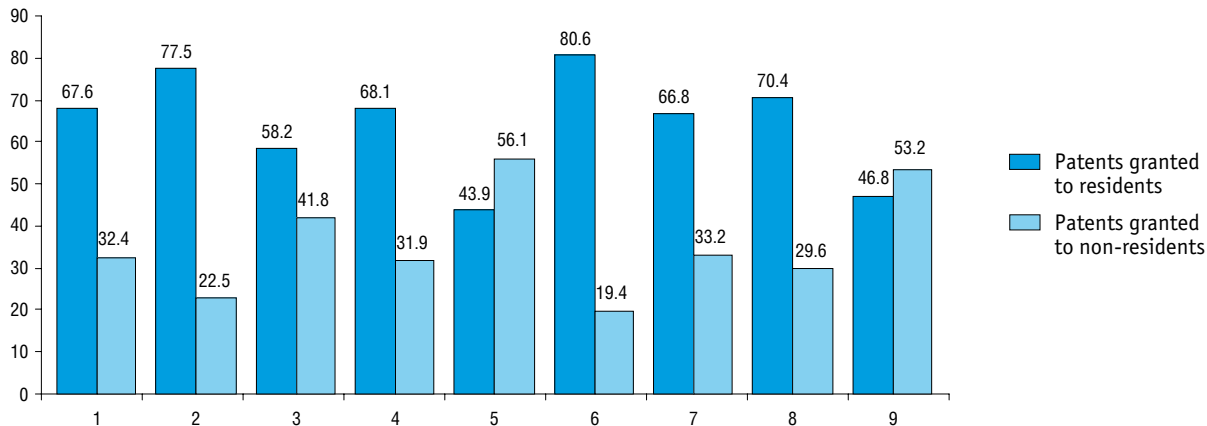
- Country inventiveness ratio – resident patent applications filed in the Russian Federation per 10 000 population
- Country self-sufficiency ratio – resident/total patent applications filed in the Russian Federation
- ◇ Country dependency ratio – non-resident/resident patent applications filed in the Russian Federation

6.11. PATENTS GRANTED IN THE RUSSIAN FEDERATION BY SECTION OF THE INTERNATIONAL PATENT CLASSIFICATION*

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	25633	17592	23390	23299	23028	28808	34824	30322	29999	32880	31638
A. Human Necessities	4207	4347	6703	6738	6360	8025	11043	8468	8907	9506	8042
B. Performing Operations; Transporting	6129	2905	3669	3897	3584	4298	5427	4711	4412	4969	4965
C. Chemistry; Metallurgy	4529	3332	3645	3557	3702	5416	5508	5167	5512	5524	5779
D. Textiles; Paper	437	197	216	183	221	259	310	320	301	274	271
E. Fixed Constructions	2042	1156	1659	1626	1536	1689	2086	1977	1603	1898	1807
F. Mechanical Engineering; Lighting; Heating; Weapons; Blasting	3033	2144	2634	2706	2679	2928	3537	3062	2761	3246	3453
G. Physics	3083	2172	3068	2911	3048	3632	4160	3734	3881	4381	4285
H. Electricity	2173	1339	1796	1681	1898	2561	2753	2883	2622	3082	3036

* Patents granted to residents and non-residents.

6.12. PERCENTAGE DISTRIBUTION OF PATENTS GRANTED IN THE RUSSIAN FEDERATION BY ASSIGNEE AND SECTION OF THE INTERNATIONAL PATENT CLASSIFICATION: 2013



1 – Total

2 – Human Necessities

3 – Performing Operations; Transporting

4 – Chemistry; Metallurgy

5 – Textiles; Paper

6 – Fixed Constructions

7 – Mechanical Engineering; Lighting; Heating;
Weapons

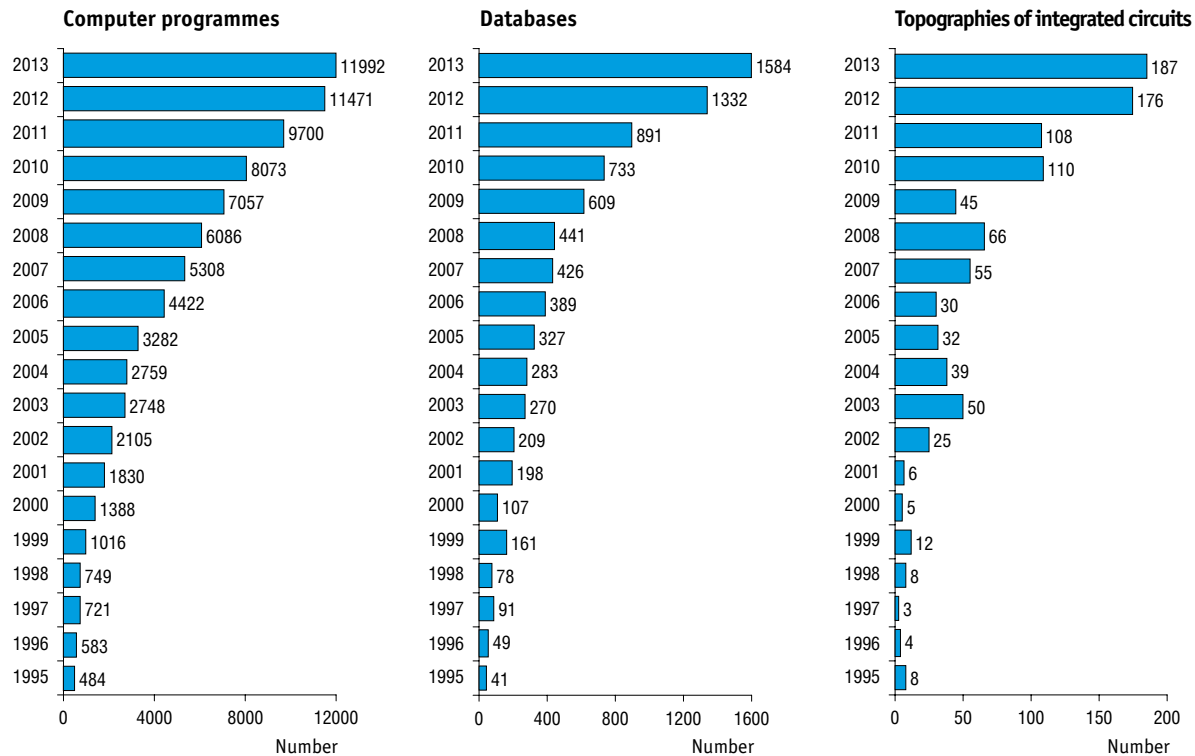
8 – Physics

9 – Electricity

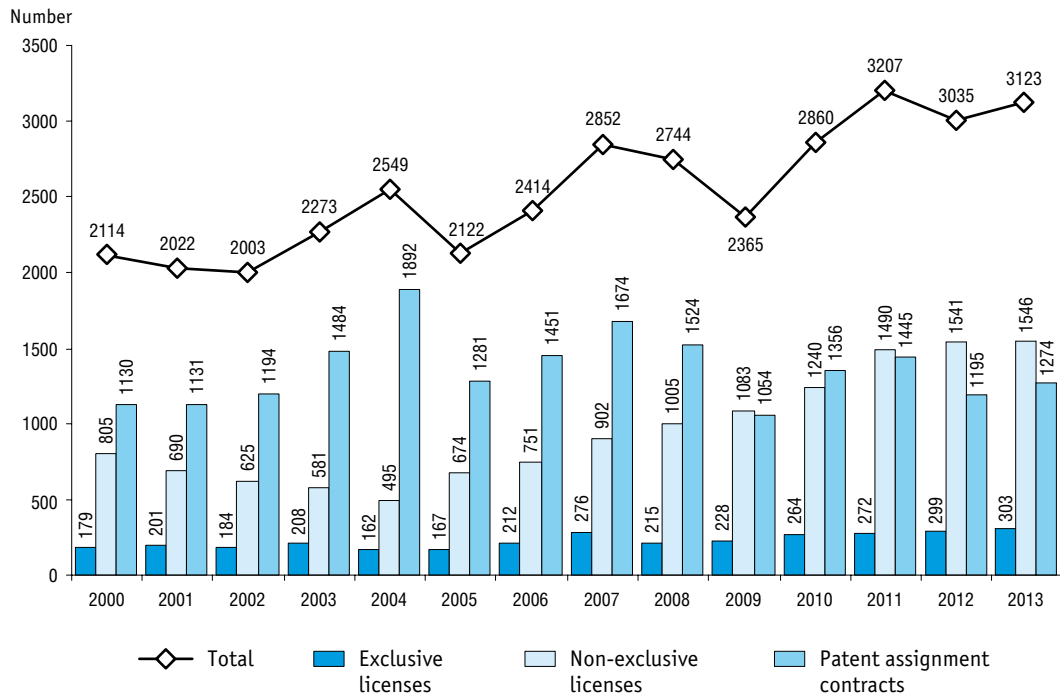
6.13. UTILITY MODEL PATENT APPLICATIONS AND PATENTS GRANTED

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
Patent applications filed in the Russian Federation	2039	4631	9473	9699	10075	10995	11153	12262	13241	14069	14358
By residents	1997	4549	9082	9265	9588	10483	10728	11757	12584	13479	13589
By non-residents	42	82	391	434	487	512	425	505	657	590	769
Patents granted in the Russian Federation	1207	4098	7242	9568	9757	9673	10919	10581	11079	11671	12653
To residents	1195	4041	6958	9195	9311	9250	10500	10187	10571	11152	12154
To non-residents	12	57	284	373	446	423	419	394	508	519	499
Patents valid with the indication of the Russian Federation	2971	15498	28364	33033	35082	41092	48170	54848	46876	50746	54420

6.14. REGISTRATION OF INTELLECTUAL PROPERTY IN THE FIELD OF INFORMATION TECHNOLOGY



6.15. REGISTRATION OF INTERNAL LICENSE AGREEMENTS AND PATENT ASSIGNMENT CONTRACTS*

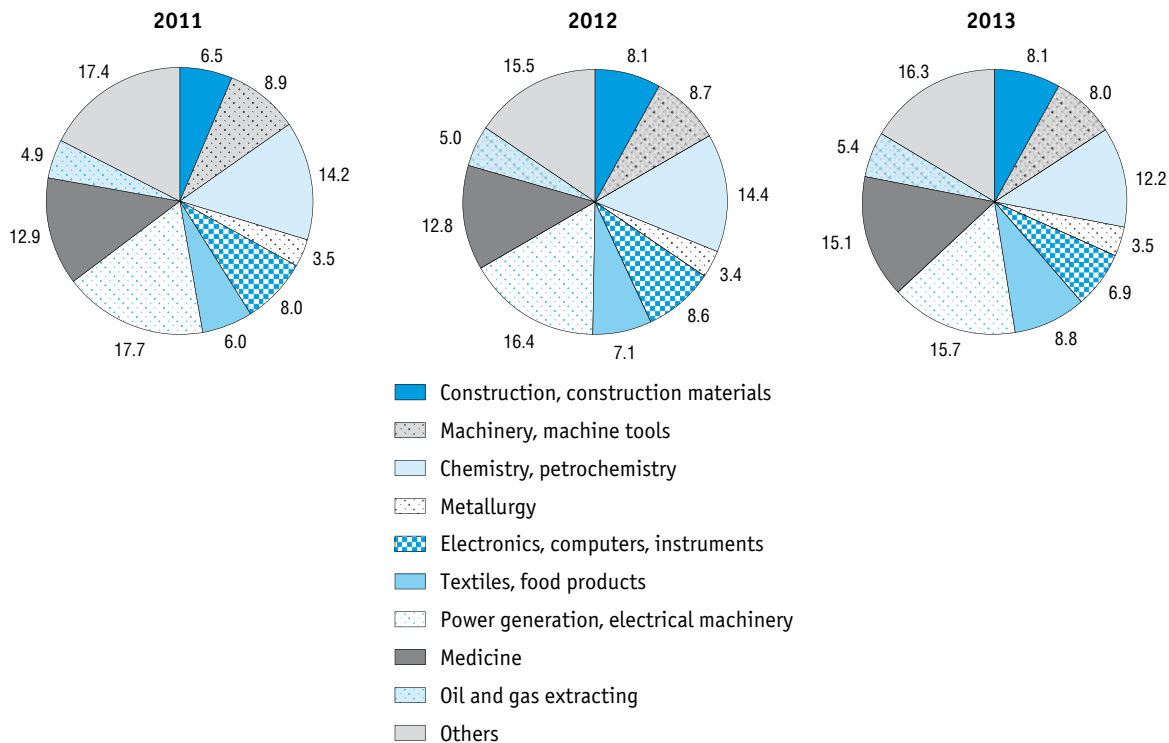


* Including patents on inventions, utility models, and industrial designs. Until 2008 – patent assignment contracts.

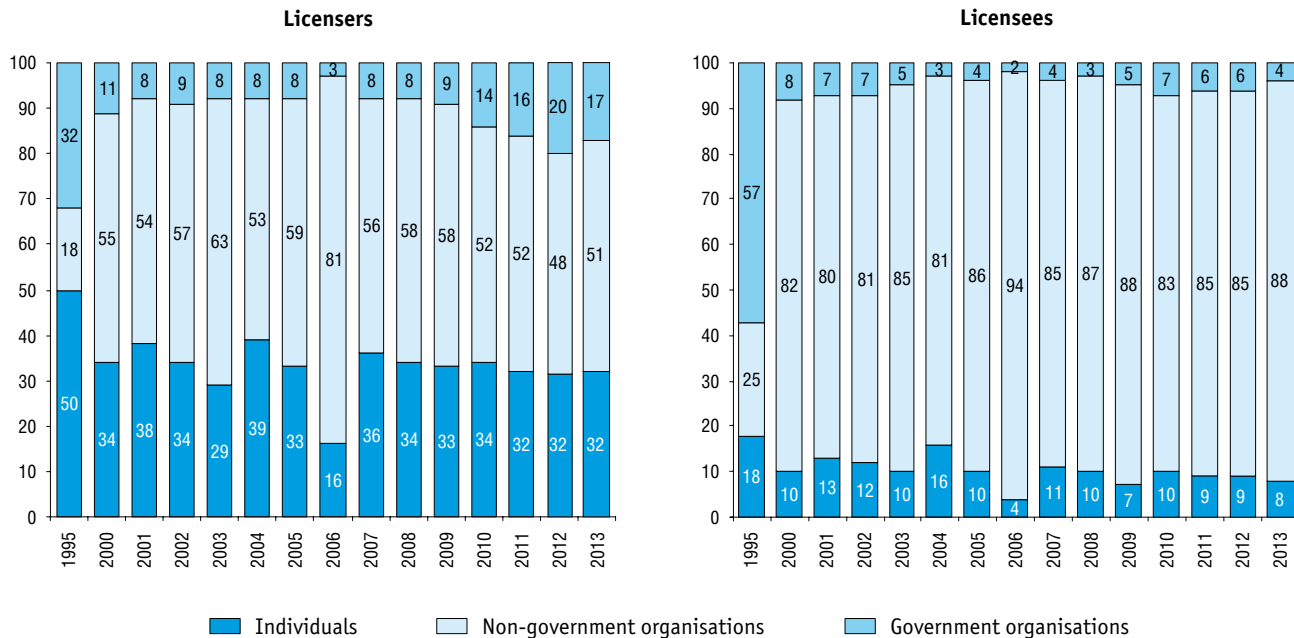
6.16. REGISTRATION OF INTERNAL LICENSE AGREEMENTS AND PATENT ASSIGNMENT CONTRACTS BY TECHNOLOGY FIELD

	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total	1095	2114	2122	2414	2852	2744	2365	2860	3207	3035	3123
I. Construction, construction materials	104	89	108	160	423	272	266	135	207	246	252
II. Machinery, machine tools	102	345	417	414	366	250	373	118	285	264	248
III. Chemistry, petrochemistry	150	203	268	500	120	94	94	286	454	438	382
IV. Metallurgy	55	85	69	181	245	133	186	86	113	103	108
V. Electronics, computers, instruments	87	78	165	157	137	73	101	311	257	260	216
VI. Textiles, food products	166	323	105	160	211	173	186	163	194	215	276
VII. Power generation, electrical machinery	55	150	223	220	390	247	364	421	567	499	490
VIII. Medicine	230	264	249	295	120	76	140	294	414	388	473
IX. Oil and gas extraction	49	224	136	100	434	338	449	162	158	152	168
X. Other	97	353	382	227	406	709	585	884	558	470	510

6.17. PERCENTAGE DISTRIBUTION OF INTERNAL LICENSE AGREEMENTS AND PATENT ASSIGNMENT CONTRACTS BY TECHNOLOGY FIELD



6.18. PERCENTAGE DISTRIBUTION OF INTERNAL LICENSE AGREEMENTS AND PATENT ASSIGNMENT CONTRACTS BY CATEGORY OF PARTNERS



6.19. TECHNOLOGY BALANCE OF PAYMENTS BY CATEGORY OF CONTRACTS

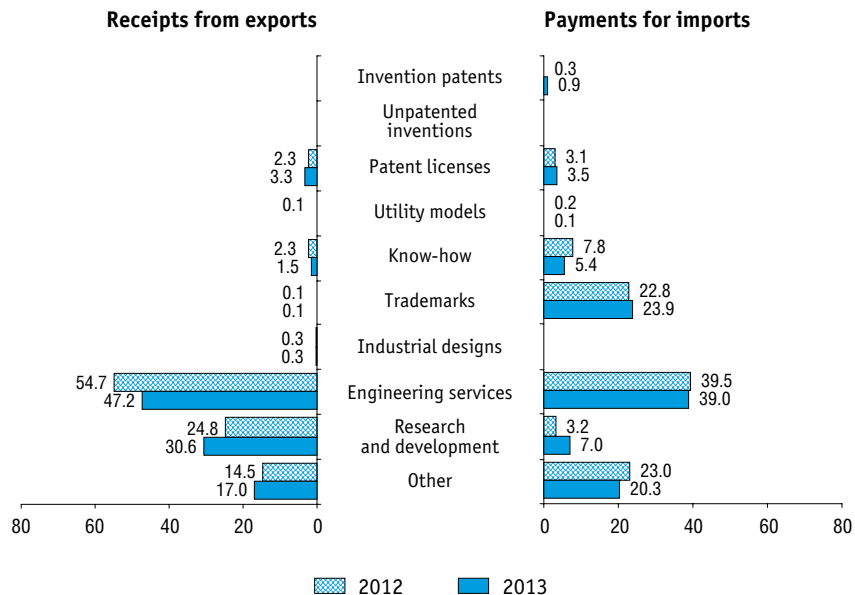
(thousand US dollars)

	Total	Invention patents	Unpatented inventions	Patent licenses	Utility models	Know-how	Trademarks	Industrial designs	Engineering services	Research and development	Other
Receipts from exports											
2000	203493.5	65.8	14.8	421.9	...	2333.5	11497.0	284.2	139307.1	23880.2	25689.0
2002	211478.4	214.5	–	210.0	...	1909.3	1446.9	84.9	143764.1	20812.0	43036.7
2003	237403.9	147.3	0.9	4000.6	...	1292.0	1185.5	2.0	166376.7	25974.2	38424.7
2004	383985.2	767.3	370.0	980.6	...	2933.9	1539.3	2.0	177335.0	63671.3	136385.8
2005	389396.4	926.3	467.0	1788.0	...	517.9	5583.5	1017.3	150858.8	83214.4	145023.2
2006	533385.9	100.8	4284.7	2576.1	...	398.0	6191.6	219.8	166911.1	89260.1	263443.7
2007	630391.6	347.2	–	5215.8	0.5	1985.1	7550.3	2457.0	267561.2	101170.3	244104.2
2008	833164.4	112.8	–	5183.8	3765.0	9709.5	17685.4	3752.3	491665.1	151463.4	149827.1
2009	618184.5	191.8	10.8	12825.7	936.2	10980.9	431.9	3554	410907.2	120877.9	57468.1
2010	627887.5	582.6	1987.0	11821.3	1718.9	13778.5	759.1	2531.0	368971.3	138356.8	87381.0
2011	584656.9	98.9	212.0	20334.7	688.0	4886.2	1251.7	2304.0	382161.5	111499.3	61220.6
2012	688469.9	21.0	–	21850.1	898.7	15653.4	999.4	2291.0	376428.2	170752.9	99575.2
2013	770584.8	81.0	110.0	25409.6	75.4	11798.9	388.2	2452.2	364000.7	235654.9	130613.9
Payments for imports											
2000	182908.0	255.5	792.0	2530.2	...	11122.0	31122.4	1044.2	110171.3	2268.3	23602.1
2002	572488.8	403.2	–	3873.6	...	16042.0	83127.7	508.0	180620.6	182662.7	105251.0
2003	666114.1	675.9	1095.3	18375.9	...	20265.2	141515.7	533.5	413643.7	17953.6	52055.3
2004	823030.1	1164.3	531.6	19910.5	...	28024.4	215034.5	644.7	497121.0	9612.8	50986.3
2005	954199.2	8730.3	2983.5	19315.4	...	9489.7	191045.0	1519.5	582813.8	16512.8	121789.2
2006	1128425.8	3201.3	–	21402.1	101.2	49705.7	160720.2	217.9	658016.9	38631.3	196429.2
2007	1426387.6	14408.5	–	68538.3	959.1	70461.1	222142.6	559.3	754249.4	32476.3	262593.0

(continued)

	Total	Invention patents	Unpatented inventions	Patent licenses	Utility models	Know-how	Trademarks	Industrial designs	Engineering services	Research and development	Other
2008	2087067.4	10716.8	16.5	63042.7	690.3	43270.8	408349.1	0.0	1156815.3	31030.0	373135.9
2009	1619031.6	1109.4	–	74956.9	253.3	61944.4	392697.1	1.0	879212.9	19857.7	188998.9
2010	1425983.3	4024.2	–	82853.9	3665.6	62117.0	419009.3	2.2	526913.5	49631.8	277765.8
2011	1862566.6	3531.0	–	71764.2	2264.3	92153.1	406684.6	26.2	692495.2	72676.4	520971.6
2012	2043187.9	6970.5	14.0	64208.4	5138.4	158428.1	465370.3	997.0	806467.1	66295.4	469298.7
2013	2463626.3	22600.3	–	85973.2	1998.2	133742.2	587894.4	704.3	959742.4	171256.5	499714.8
Balance of payments											
2000	20585.5	-189.7	-777.2	-2108.3	...	-8788.5	-19625.4	-760.0	29135.8	21611.9	2086.9
2002	-361010.4	-188.7	–	-3663.6	...	-14132.7	-81680.8	-423.1	-36856.5	-161850.7	-62214.3
2003	-428710.2	-528.6	-1094.4	-14375.3	...	-18973.2	-140330.2	-531.5	-247267.0	8 020.6	-13630.6
2004	-439044.9	-397.0	-161.6	-18929.9	...	-25090.5	-213495.2	-642.7	-319786.0	54058.5	85399.5
2005	-564802.8	-7804.0	-2516.5	-17527.4	...	-8971.8	-185461.5	-502.2	-431955.0	66701.6	23234.0
2006	-595039.9	-3100.5	4284.7	-18826.0	-101.2	-49307.7	-154528.6	1.9	-491105.8	50628.8	67014.5
2007	-795996.0	-14061.3	–	-63322.5	-958.6	-68476.0	-214592.3	1897.7	-486688.2	68694.0	-18488.8
2008	-1253903.0	-10604.0	-16.5	-57858.9	3074.7	-33561.3	-390663.7	3752.3	-665150.2	120433.4	-223308.8
2009	-1000847.1	-917.6	10.8	-62131.2	682.9	-50963.5	-392265.2	3553.0	-468305.7	101020.2	-131530.8
2010	-798095.8	-3441.6	1987.0	-71032.6	-1946.7	-48338.5	-418250.2	2528.8	-157942.2	88725.0	-190384.8
2011	-1277909.7	-3432.1	212.0	-51429.5	-1576.3	-87266.9	-405432.9	2277.8	-310333.7	38822.9	-459751.0
2012	-1354718.0	-6949.5	-14.0	-42358.3	-4239.7	-142774.7	-464370.9	1294.0	-430038.9	104457.5	-369723.5
2013	-1693041.5	-22519.3	110.0	-60563.6	-1922.8	-121943.3	-587506.2	1747.9	-595741.7	64398.4	-369100.9

6.20. PERCENTAGE DISTRIBUTION OF TECHNOLOGY EXPORTS AND IMPORTS BY CATEGORY OF CONTRACTS



6.21. TECHNOLOGY BALANCE OF PAYMENTS BY COUNTRY

(thousand US dollars)

	Receipts from exports			Payments for imports			Balance of payments		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Total	584656.9	688469.9	770584.8	1862566.6	2043187.9	2463626.3	-1277909.7	-1354718.0	-1693041.5
CIS countries	92601.3	152718.3	75303.4	47160.7	100179.7	88131.0	45440.6	52538.6	-12827.6
Armenia	748.7	1129.0	18.0	2642.7	1220.7	296.0	-1894.0	-91.7	-278.0
Azerbaijan	4550.8	5316.9	5599.7	46.2	568.5	836.5	4504.6	4748.4	4763.2
Belarus	24268.7	70684.6	27224.3	7749.3	11570.7	11221.3	16519.4	59113.9	16003.0
Kazakhstan	31330.0	34723.8	19849.1	5156.9	5888.8	6815.1	26173.1	28835.0	13034.0
Kyrgyzstan	2931.5	2134.0	1359.6	-	-	37.9	2931.5	2134.0	1321.7
Republic of Moldova	468.4	379.4	644.6	10.4	517.7	123.0	458.0	-138.3	521.6
Tajikistan	3635.7	12329.6	5248.6	3.9	367.0	17.6	3631.8	11962.6	5231.0
Turkmenistan	14.3	1.6	113.5	43.4	32.9	-	-29.1	-31.3	113.5
Ukraine	19104.2	21184.1	14002.3	31430.4	79982.7	68597.0	-12326.2	-58798.6	-54594.7
Uzbekistan	5549.0	4835.3	1243.7	77.5	30.7	186.6	5471.5	4804.6	1057.1
OECD countries	222006.2	280743.7	409978.9	1657411.6	1814405.8	2275154.4	-1435405.4	-1533662.1	-1865175.5
Australia	54.3	10.6	116.6	782.7	1514.2	568.7	-728.4	-1503.6	-452.1
Austria	795.5	925.2	5113.6	46866.7	46760.0	35294.4	-46071.2	-45834.8	-40860.1
Belgium	804.0	2854.0	4824.6	78698.9	37670.9	29924.5	-77894.9	-34816.9	-25099.9
Canada	2086.6	1849.4	3460.2	131427.2	106066.8	121197.8	-129340.6	-104217.4	-117737.6
Chile	-	-	-	9.2	-	-	-9.2	-	-
Czech Republic	1905.7	470.8	1551.6	18520.3	40261.5	31940.7	-16614.6	-39790.7	-30389.1
Denmark	801.2	1308.5	6598.2	29990.0	34475.3	31823.8	-29188.8	-33166.8	-25225.6
Estonia	1723.5	347.6	214.2	33938.8	10758.5	4598.6	-32215.3	-10410.9	-4384.4
Finland	7782.7	15324.0	19074.8	30225.2	31352.7	42057	-22442.5	-16028.7	-22982.2
France	7345.4	11014.3	31118.4	150322.8	62183.8	184481.0	-142977.4	-51169.5	-153362.8

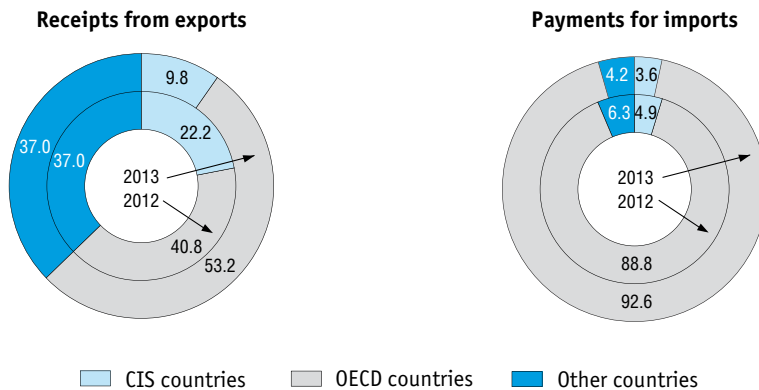
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	Receipts from exports			Payments for imports			Balance of payments		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Germany	30810.9	30815.6	37631.0	229712.4	283846.3	223429.3	-198901.5	-253030.7	-185798.3
Greece	61.4	93.4	3.3	7748.7	7195.1	4058.4	-7687.3	-7101.7	-4055.1
Hungary	573.2	459.1	1469.3	154.0	2593.9	1791.0	419.2	-2134.8	321.7
Iceland	-	-	-	-	-	-	-	-	-
Ireland	753.2	1601.8	1637.5	4706.3	4802.1	5556.6	-3953.1	-3200.3	-3919.1
Israel	100.1	461.5	5351.9	221.5	33.7	542.1	-121.4	427.8	4809.8
Italy	7570.3	8349.8	5833.1	25062.6	122269.5	166347.5	-17492.3	-113919.7	-160514.4
Japan	5576.3	14308.5	6406.3	27133.4	54302.9	66490.6	-21557.1	-39994.4	-60084.3
Luxembourg	69.3	0.8	157.8	11739.3	6488.1	7293.4	-11670.0	-6487.3	-7135.6
Mexico	15.8	34.3	218.5	-	-	4.4	15.8	34.3	214.1
Netherlands	24141.8	46941.4	44681.2	118137.3	160170.9	140125.3	-93995.5	-113229.5	-95444.1
New Zealand	-	-	5.0	20.5	0.5	215.7	-20.5	-0.5	-210.7
Norway	12688.7	22575.4	14001.2	6687.0	3327.9	14690.3	6001.7	19247.5	-689.1
Poland	235.3	341.9	353.5	9953.1	24074.0	28667.3	-9717.8	-23732.1	-28313.8
Portugal	-	233.0	286.1	4.3	-	72.8	-4.3	233.0	213.3
Republic of Korea	24978.9	2508.9	20555.9	15766.6	33149.1	57535.6	9212.3	-30640.2	-36979.7
Slovakia	294.1	122.0	421.4	2699.6	225.7	886.4	-2405.5	-103.7	-465.0
Slovenia	867.9	418.4	915.0	2821.8	615.4	1592.3	-1953.9	-197.0	-677.3
Spain	64.3	188.0	6702.0	8289.6	47781.3	121445.8	-8225.3	-47593.3	-114743.8
Sweden	364.4	7385.3	7912.1	57405.1	77655.3	36267.2	-57040.7	-70270.0	-28355.1
Switzerland	9947.0	7981.2	18658.2	126158.5	114195.5	169351.5	-116211.5	-106214.3	-150693.3
Turkey	427.4	608.2	798.2	4179.2	3102.4	24584.6	-3751.8	-2494.2	-23786.4
United Kingdom	17303.4	48308.5	29474.7	110648.4	126391.4	200226.5	-93345.0	-78082.9	-170751.8
USA	61863.6	52902.3	134433.2	367380.6	371141.1	522093.1	-305517.0	-318238.8	-387659.9

(continued)

	Receipts from exports			Payments for imports			Balance of payments		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Other countries	270049.4	255007.9	285302.5	157994.3	128602.4	100340.9	112055.1	126405.5	184961.6
Brazil	879.9	493.4	1299.7	-	-	-	879.9	493.4	1299.7
Bulgaria	28342.9	20273.4	20097.4	7347.2	1147.1	1087.8	20995.7	19126.3	19009.6
China	61736.2	58825.9	75034.8	970.9	3681.9	7265.1	60765.3	55144.0	67769.7
Cyprus	7094.2	10375.4	7826.2	65658.8	63485.2	36803.2	-58564.6	-53109.8	-28977.0
Georgia	875.9	490.0	421.8	24.0	27.4	-	851.9	462.6	421.8
Hong Kong	3997.4	4217.8	5899.4	-	2766.0	2186.3	3997.4	1451.8	3713.1
India	43475.8	25326.8	49675.2	229.3	4903.6	3329.6	43246.5	20423.2	46345.6
Iran	15232.8	40692.2	54242.7	666.0	-	313.0	14566.8	40692.2	53929.7
Romania	514.6	467.6	211.4	136.3	3.4	908.6	378.3	464.2	-697.2
Singapore	10513.0	7963.4	5430.8	-	1739.1	6289.0	10513.0	6224.3	-858.2
South Africa	35932.7	7187.4	3607.9	20960.5	866.8	1061.8	14972.2	6320.6	2546.1
Taiwan	-	15.2	34.2	-	-	116.5	-	15.2	-82.3
Other	61454.0	78679.4	61431.0	62001.3	49981.9	40980.0	-547.3	28697.5	20451.0

6.22. PERCENTAGE DISTRIBUTION OF TECHNOLOGY EXPORTS AND IMPORTS BY COUNTRY GROUPS



6.23. TECHNOLOGY BALANCE OF PAYMENTS BY SECTOR OF PERFORMANCE

(thousand US dollars)

	Receipts from exports			Payments for imports			Balance of payments		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Total	584656.9	688469.9	770584.8	1862566.6	2043187.9	2463626.3	-1277909.7	-1354718.0	-1693041.5
Sectors of performance:									
government	154869.6	115616.7	144036.8	38154.5	5309.3	53088.6	116715.1	110307.4	90948.2
business enterprise	426003.6	570500.2	622104.9	1824146.3	2037821.0	2410406.5	-1398142.7	-1467320.8	-1788301.6
higher education	1426.8	2313.0	4443.1	264.2	52.8	130.0	1162.6	2260.2	4313.1
private non-profit	2356.9	40.0	-	1.6	4.8	1.2	2355.3	35.2	-1.2

6.24. TECHNOLOGY BALANCE OF PAYMENTS BY ECONOMIC ACTIVITY

(thousand US dollars)

	Receipts from exports			Payments for imports			Balance of payments		
	2011	2012	2013	2011	2012	2013	2011	2012	2013
Total	584656.9	688469.9	770584.8	1862566.6	2043187.9	2463626.3	-1277909.7	-1354718.0	-1693041.5
Agriculture, hunting and forestry	-	898.7	-	1718.2	7813.0	180.4	-1718.2	-6914.3	-180.4
Fishing, aquaculture and service activities in these fields	688.0	11921.6	75.4	-	-	29.5	688.0	11921.6	45.9
Mining and quarrying	18213.1	2985.0	1407.2	104635.6	133163.6	134826.8	-86422.5	-130178.6	-133419.6
Manufacturing	52826.6	49034.2	57440.7	1383378.1	1465294.1	1967032.1	-1330551.5	-1416259.9	-1909591.4
Electricity, gas and water supply	1163.7	1001.8	2070.0	2890.2	1311.5	1769.8	-1726.5	-309.7	300.2
Construction	86965.7	138959.0	563.6	103655.0	22281.4	9733.6	-16689.3	116677.6	-9170.0
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	6397.3	6517.9	127933.6	1734.0	84385.0	135345.9	4663.3	-77867.1	-7412.3
Transport and communications	24394.9	41191.9	38513.8	120688.4	182970.6	114174.2	-96293.5	-141778.7	-75660.4
Real estate, renting and business activities	391502.1	433640.0	538917.6	67489.1	138388.9	95201.7	324013.0	295251.1	443715.9
Of which:									
research and development	221063.2	178185.5	197102.9	10396.8	43427.2	35354.5	210666.4	134758.3	161748.4
other business activities	119859.6	181532.5	196546.3	54572.1	90191.1	49733.4	65287.5	91341.4	146812.9
Public administration and defence; compulsory social security	24.1	11.1	4.4	63.3	-	-	-39.2	11.1	4.4
Education	2481.4	2308.7	3577.7	473.9	583.5	376.1	2007.5	1725.2	3201.6
Health and social services	-	-	80.8	132.8	198.6	198.0	-132.8	-198.6	-117.2
Community, social and personal service activities	-	-	-	1399.7	6797.7	4758.2	-1399.7	-6797.7	-4758.2
Of which recreational, cultural and sporting activities	-	-	-	1399.7	6797.7	4758.2	-1399.7	-6797.7	-4758.2
Other	-	-	-	74308.3	-	-	-74308.3	-	-

6.25. DEVELOPMENT OF ADVANCED MANUFACTURING TECHNOLOGIES BY TYPE

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Advanced manufacturing technologies	688	637	727	821	676	637	735	780	854	897	864	1138	1323	1429
Design and engineering	165	158	155	148	111	138	148	177	173	196	216	316	305	426
Fabrication, processing, and assembling	281	245	333	390	342	291	362	365	369	328	383	405	548	517
Automated material handling	20	11	7	10	11	9	13	8	14	21	18	24	23	22
Automated inspection and/or testing equipment	76	71	63	87	90	91	97	110	99	102	116	128	121	137
Communications and control	90	102	113	116	49	57	56	67	68	67	70	154	204	206
Manufacturing information systems	18	16	14	18	23	21	24	14	23	26	20	51	60	68
Integrated management and control	38	34	42	52	50	30	35	39	41	49	41	60	62	53

6.26. DEVELOPMENT OF ADVANCED MANUFACTURING TECHNOLOGIES BY DEGREE OF NOVELTY AND TYPE

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Technologies new to the country	569	543	606	582	569	538	642	653	738	757	762	1028	1188	1276
Design and engineering	136	142	129	125	102	125	138	140	150	169	191	272	269	367
Fabrication, processing, and assembling	231	210	271	251	271	239	308	314	316	283	336	371	491	469
Automated material handling	19	8	6	8	11	8	11	8	12	17	16	23	21	21
Automated inspection and/or testing equipment	66	62	55	48	71	72	79	91	87	92	98	117	101	108
Communications and control	74	87	99	99	46	52	52	52	65	61	67	147	194	195
Manufacturing information systems	14	11	13	7	20	20	24	13	20	22	17	41	55	66
Integrated management and control	29	23	33	44	48	22	30	35	37	40	37	57	57	50
Radically new technologies	72	44	70	56	52	60	52	75	54	140	102	110	135	153
Design and engineering	12	4	16	13	4	12	7	17	7	27	25	44	36	59
Fabrication, processing, and assembling	32	18	41	29	33	30	25	30	24	45	47	34	57	48
Automated material handling	1	1	–	1	–	–	1	–	1	4	2	1	2	1
Automated inspection and/or testing equipment	6	5	5	5	9	12	14	14	8	10	18	11	20	29
Communications and control	9	4	2	5	2	4	3	12	1	6	3	7	10	11
Manufacturing information systems	4	3	–	1	2	1	–	1	1	4	3	10	5	2
Integrated management and control	8	9	6	2	2	1	2	1	3	9	4	3	5	3

6.27. DEVELOPMENT OF ADVANCED MANUFACTURING TECHNOLOGIES BY DEGREE OF NOVELTY AND ECONOMIC ACTIVITY

	Total			Of which technologies					
	2011	2012	2013	new to the country			radically new		
				2011	2012	2013	2011	2012	2013
Advanced manufacturing technologies	1138	1323	1429	1028	1188	1276	110	135	153
Mining and quarrying	10	14	15	7	12	12	3	2	3
Manufacturing	338	336	398	320	320	374	18	16	24
Electricity, gas and water supply	23	32	38	22	32	38	1	–	–
Transport and communications	3	12	10	3	12	10	–	–	–
Real estate, renting and business activities	24	616	680	502	542	588	64	74	92
Of which:									
research and development	531	562	619	471	493	536	60	69	83
other business activities	20	31	34	20	30	30	–	1	4
Education	198	313	288	174	270	254	24	43	34
Of which higher education	198	313	288	174	270	254	24	43	34

6.28. USE OF ADVANCED MANUFACTURING TECHNOLOGIES BY TYPE

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Advanced manufacturing technologies	70069	80012	93412	107015	119639	140983	168311	180324	184568	201850	203330	191650	191372	193830
Design and engineering	14385	18152	23135	29960	36826	43273	50653	54044	47116	54539	56130	41422	39664	38735
Fabrication, processing, and assembling	35408	37056	39113	40757	44066	42976	50290	48956	47235	52460	55438	53563	55579	55424
Automated material handling	685	667	707	934	829	970	1270	1420	1469	1668	1853	1649	1570	1823
Automated inspection and/or testing equipment	2409	2607	4335	4168	4071	4525	5941	6758	7531	8075	9106	9395	9519	11314
Communications and control	13713	18721	22975	27766	29923	44135	53971	62102	74468	77457	72798	77662	76479	78028
Manufacturing information systems	1823	1335	1563	1827	2085	3177	4092	4602	4175	4510	4848	4853	5171	5293
Integrated management and control	1646	1474	1584	1603	1839	1927	2094	2442	2380	2877	3157	3106	3390	3213

6.29. USE OF ADVANCED MANUFACTURING TECHNOLOGIES BY TYPE AND DURATION

	Total		Of which technologies used during the period of					
			less than 1 year		1 to 5 years		6 years and more	
	2012	2013	2012	2013	2012	2013	2012	2013
Advanced manufacturing technologies	191372	193830	17180	17689	85291	81562	88901	94579
Design and engineering	39664	38735	5329	3437	17537	17460	16798	17838
Fabrication, processing, and assembling	55579	55424	4827	5702	21763	19150	28989	30572
Automated material handling	1570	1823	157	245	649	709	764	869
Automated inspection and/or testing equipment	9519	11314	1033	1160	4875	5892	3611	4262
Communications and control	76479	78028	5024	6528	36498	34678	34957	36822
Manufacturing information systems	5171	5293	489	409	2562	2435	2120	2449
Integrated management and control	3390	3213	321	208	1407	1238	1662	1767

6.30. USE OF ADVANCED MANUFACTURING TECHNOLOGIES BY ECONOMIC ACTIVITY AND DURATION

	Total		Of which technologies used during the period of					
			less than 1 year		1 to 5 years		6 years and more	
	2012	2013	2012	2013	2012	2013	2012	2013
Advanced manufacturing technologies	191372	193830	17180	17689	85291	81562	88901	94579
Mining and quarrying	9527	9050	617	531	5658	5083	3252	3436
Manufacturing	119182	121103	10006	8800	49054	47913	60122	64390
Electricity, gas and water supply	14237	15959	1477	1728	7164	7246	5596	6985
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	409	409	22	8	276	276	111	125
Transport and communications	3007	3826	281	273	1216	1834	1510	1719
Real estate, renting and business activities	40467	38629	4343	5869	19959	17206	16165	15554
Of which research and development	30454	28765	3355	4784	14809	12576	12290	11045
Education	4443	4746	422	473	1929	1956	2092	2317
Of which higher education	4443	4746	422	473	1929	1956	2092	2317
Community, social and personal service activities	100	108	12	7	35	48	53	53

6.31. USE OF ADVANCED MANUFACTURING TECHNOLOGIES BY TYPE AND SOURCE OF ACQUISITION: 2013

	Total	Of which technologies		
		created in the reporting entity	acquired	
			in Russia	abroad
Advanced manufacturing technologies	193830	30992	109424	53414
Design and engineering	38735	9396	23143	6196
Fabrication, processing, and assembling	55424	17298	23268	19358
Automated material handling	1823	345	802	676
Automated inspection and/or testing equipment	11314	1248	6632	3434
Communications and control	78028	5647	50268	22113
Manufacturing information systems	5293	1104	3255	934
Integrated management and control	3213	454	2056	703

6.32. USE OF ADVANCED MANUFACTURING TECHNOLOGIES BY ECONOMIC ACTIVITY AND SOURCE OF ACQUISITION: 2013

	Total	Of which technologies		
		created in the reporting entity	acquired	
			in Russia	abroad
Advanced manufacturing technologies	193830	30992	109424	53414
Mining and quarrying	9050	453	6724	1873
Manufacturing	121103	17381	62265	41457
Electricity, gas and water supply	15959	1343	12238	2378
Transport and communications	3826	116	2854	856
Real estate, renting and business activities	38629	10435	22310	5884
Of which research and development	28765	9656	14339	4770
Education	4746	1237	2632	877
Of which higher education	4746	1237	2632	877

6.33. USE OF ADVANCED MANUFACTURING TECHNOLOGIES ON THE BASIS OF INVENTION PATENTS BY TYPE*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*	2012	2013
Advanced manufacturing technologies	2804	2881	2457	2638	3292	3072	2168	1373	2463	1344	1012	6566	6032	9099
Design and engineering	1115	1116	623	637	702	1055	814	499	223	244	274	1574	1582	2193
Fabrication, processing, and assembling	1231	1327	1371	1597	1648	1411	914	442	506	415	337	2523	2236	2670
Automated material handling	45	25	22	17	14	16	5	4	13	24	18	76	69	218
Automated inspection and/or testing equipment	171	234	216	158	236	262	142	115	725	114	116	661	739	726
Communications and control	182	117	164	190	620	258	213	238	885	426	209	1418	1138	2844
Manufacturing information systems	9	16	16	11	27	44	53	51	52	47	31	193	172	321
Integrated management and control	51	46	45	28	45	26	27	24	25	42	27	121	96	127

* Data for 2011–2012 are not comparable with data from 1999–2010 due to changes in methodology.

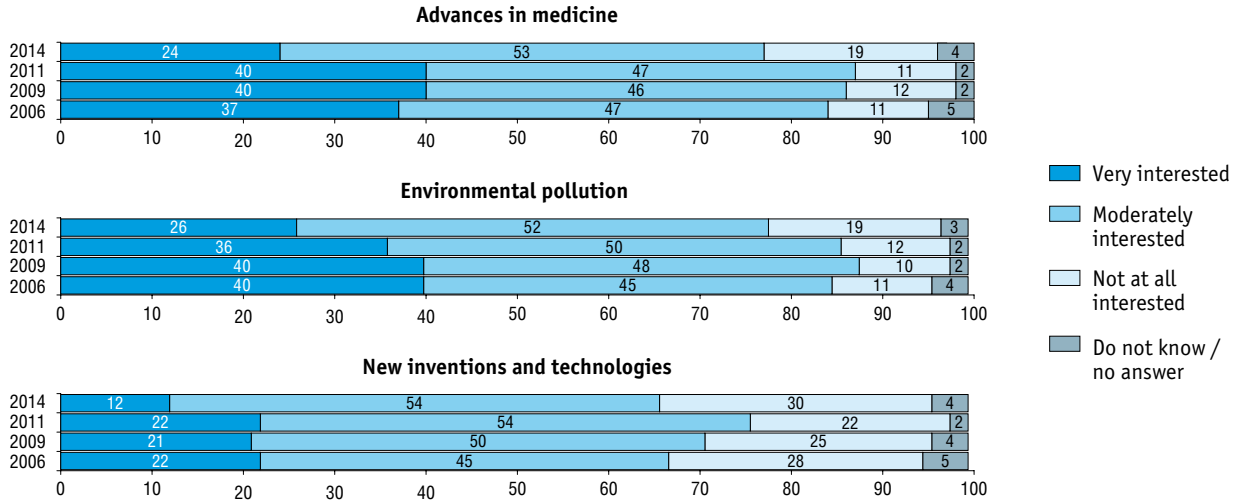


7. Public Attitudes towards Science and Technology

7.1. PUBLIC INTEREST IN SCIENTIFIC TOPICS: 2014*

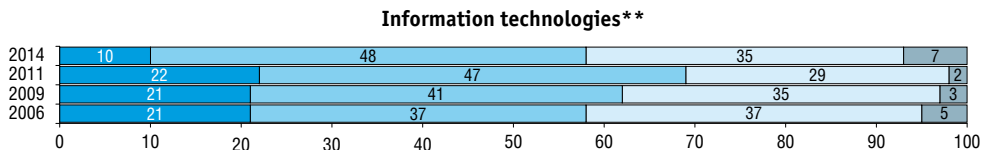
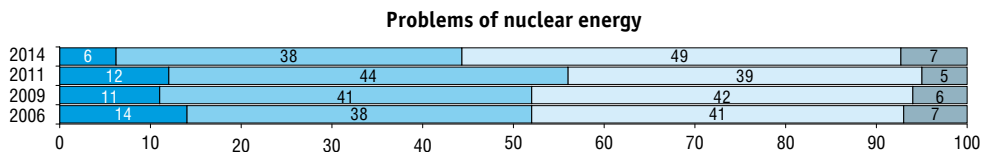
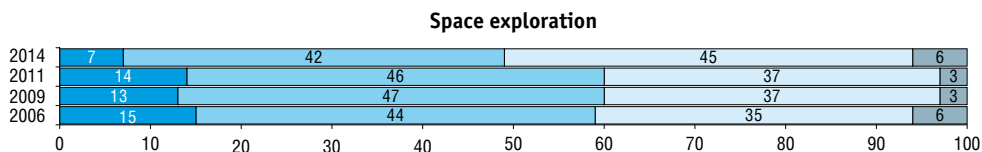
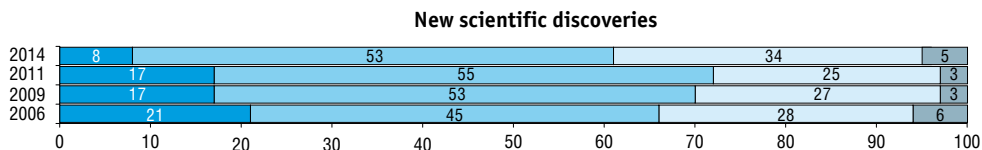
(as a percentage of all respondents)

To what extent are you interested in the following topics?



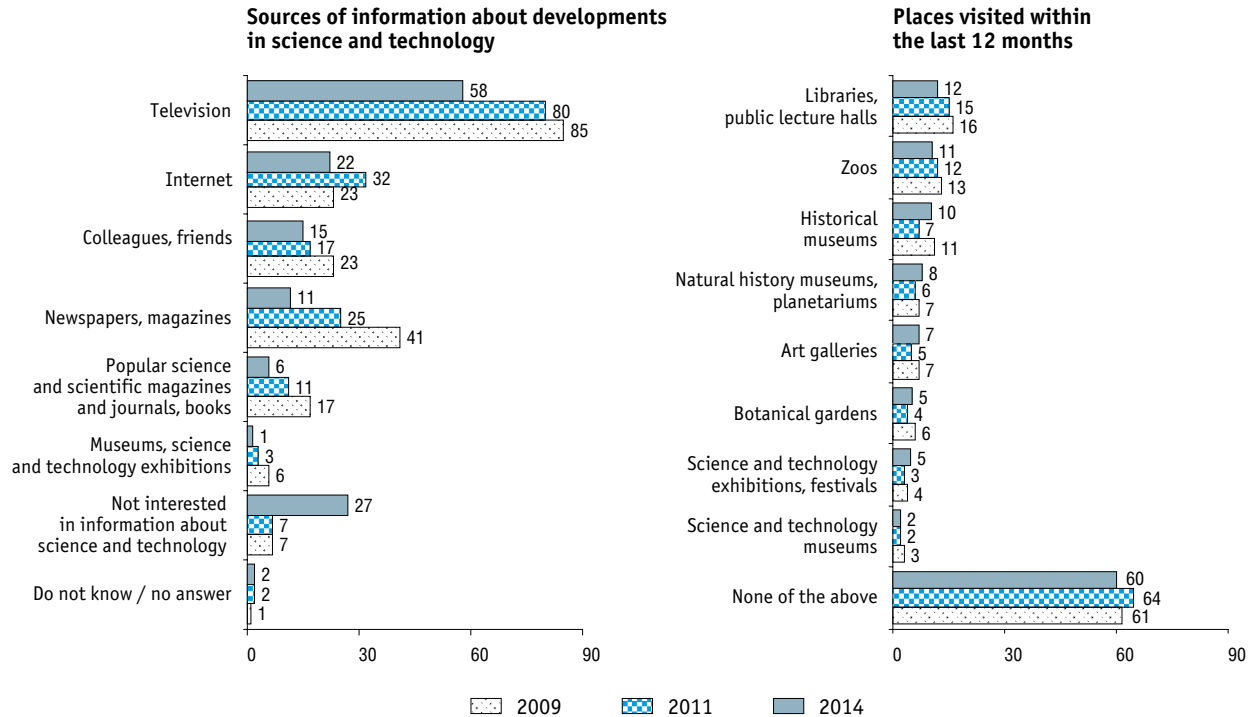
* In this and the following sections, the data for Russia are based on the results of the representative surveys of the adult population (aged 16 and over), organised by HSE Institute for Statistical Studies and Economics of Knowledge and conducted within the framework of HSE Basic Research Programme. The data sources for the European countries are: *Special Eurobarometer 401: Responsible Research and Innovation, Science and Technology*. European Commission, 2013; for the United States: *National Science Board. Science and Engineering Indicators – 2014*. Arlington, VA: National Science Foundation, 2014.

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** Before 2014 – Computerisation, Internet.

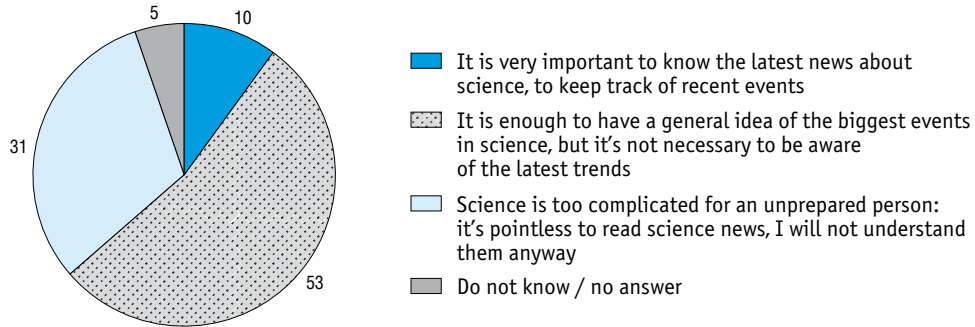
7.2. SOURCES OF INFORMATION ABOUT SCIENCE AND TECHNOLOGY

(as a percentage of all respondents)

7.3. AWARENESS ABOUT ADVANCES IN SCIENCE AND TECHNOLOGY: 2014

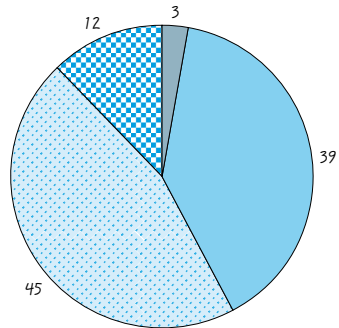
(as a percentage of all respondents)

Russia: The importance of science and technology for respondents in everyday life



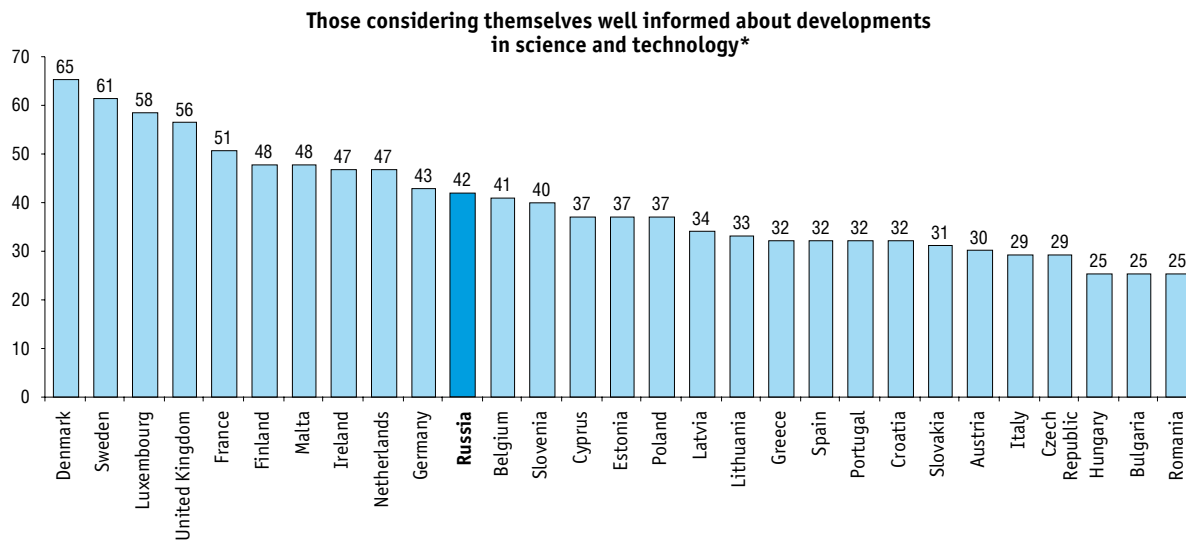
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Russia: How informed do respondents feel about developments in science and technology?



- Well informed
- Fairly informed
- Not informed at all
- Do not know / no answer

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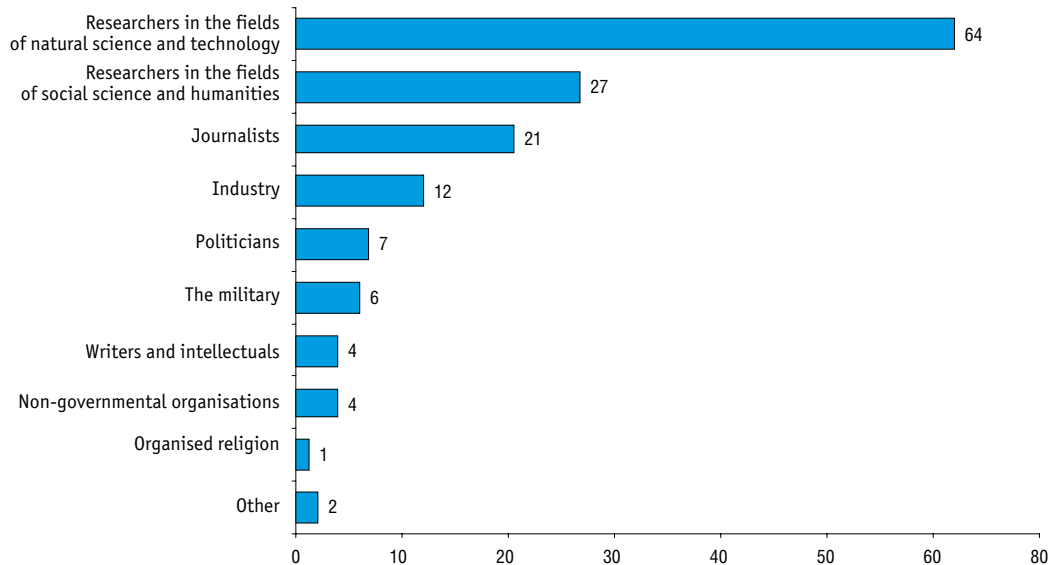


* Data for European countries refer to 2013.

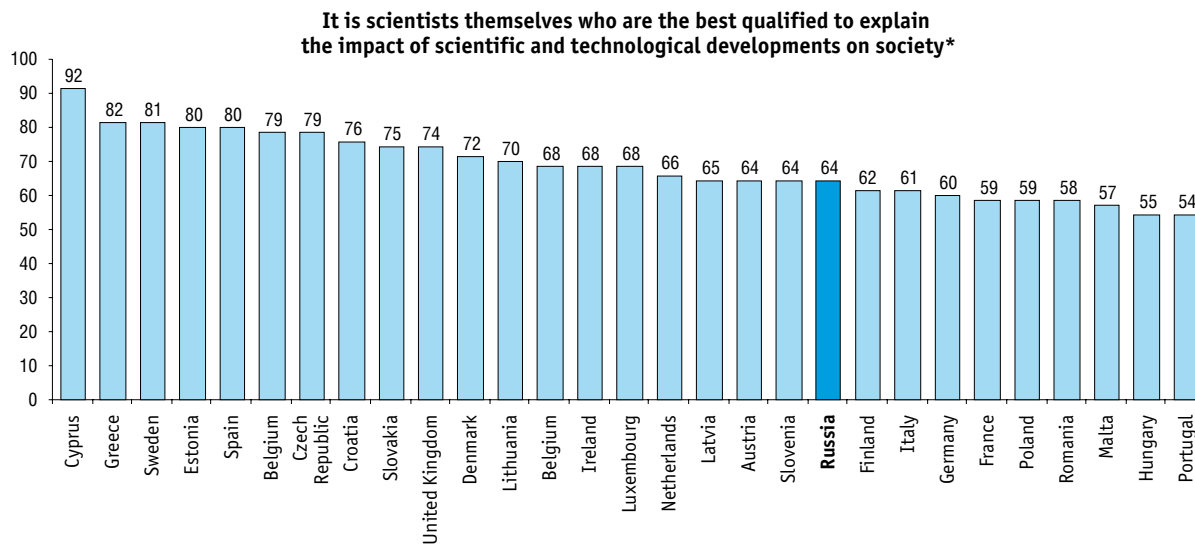
7.4. SOURCES OF INFORMATION ABOUT THE IMPACT OF SCIENCE AND TECHNOLOGY DEVELOPMENTS ON SOCIETY: 2014

(as a percentage of all respondents)

Russia: In your opinion, who among the following categories of institutional leaders are the best qualified to explain the impact of scientific and technological developments on society?

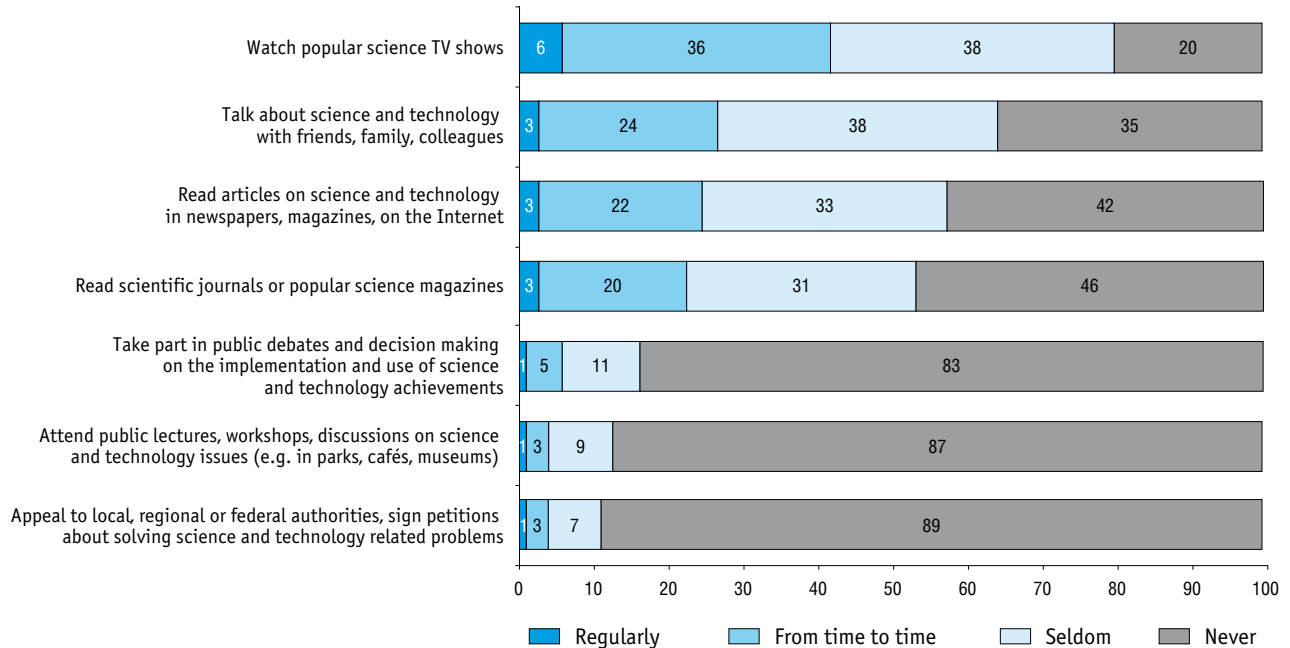


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* Data for European countries refer to 2013; in European countries, this answer implied scientists working at universities or government laboratories.

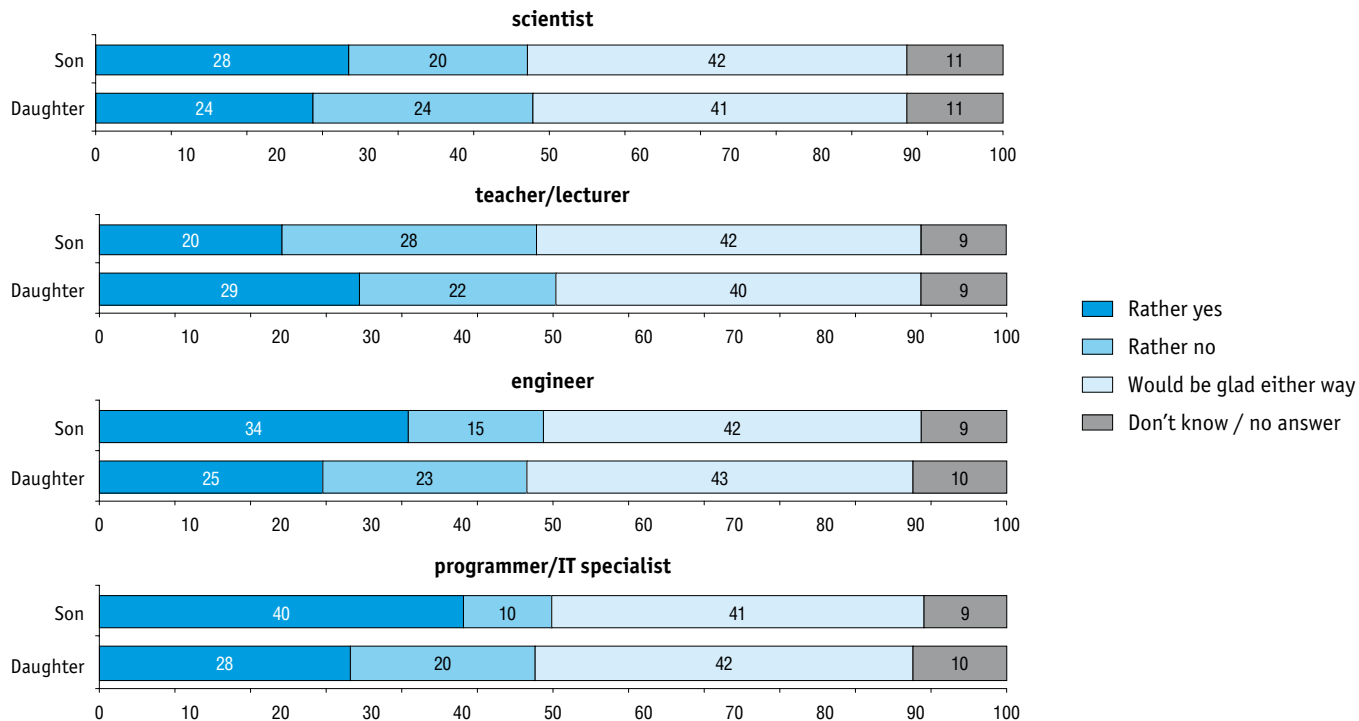
7.5. INVOLVEMENT OF THE POPULATION IN SCIENCE AND TECHNOLOGY ISSUES: 2014

(as a percentage of all respondents)

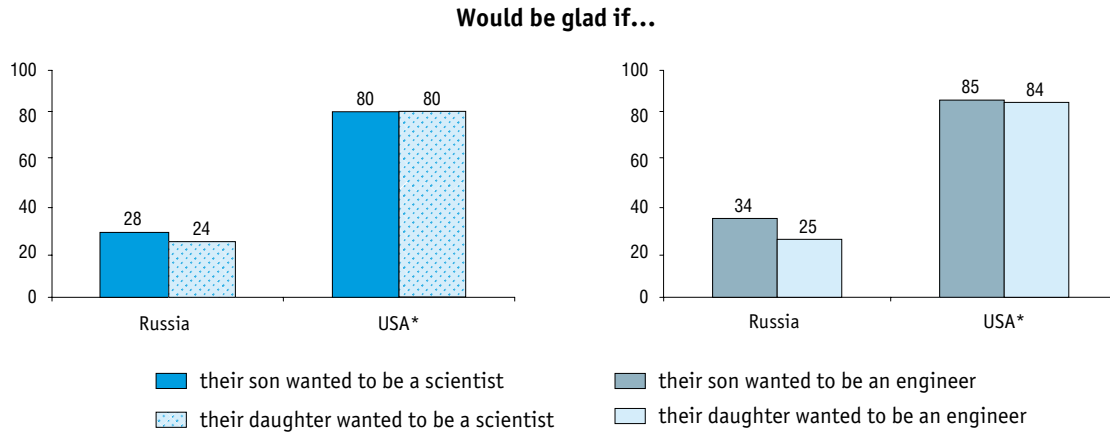
7.6. APPEAL OF PROFESSIONS IN THE FIELDS OF SCIENCE AND TECHNOLOGY AND GENDER STEREOTYPES: 2014

(as a percentage of all respondents)

Would you be glad if your child wanted to be a...



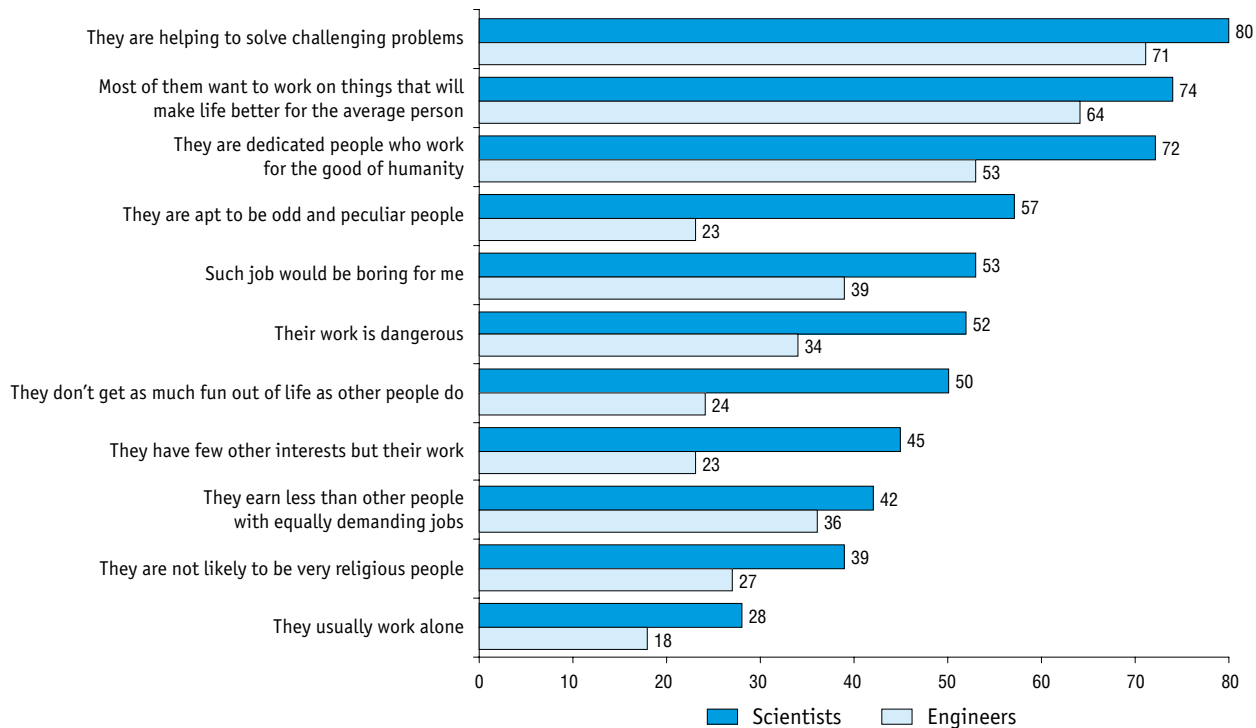
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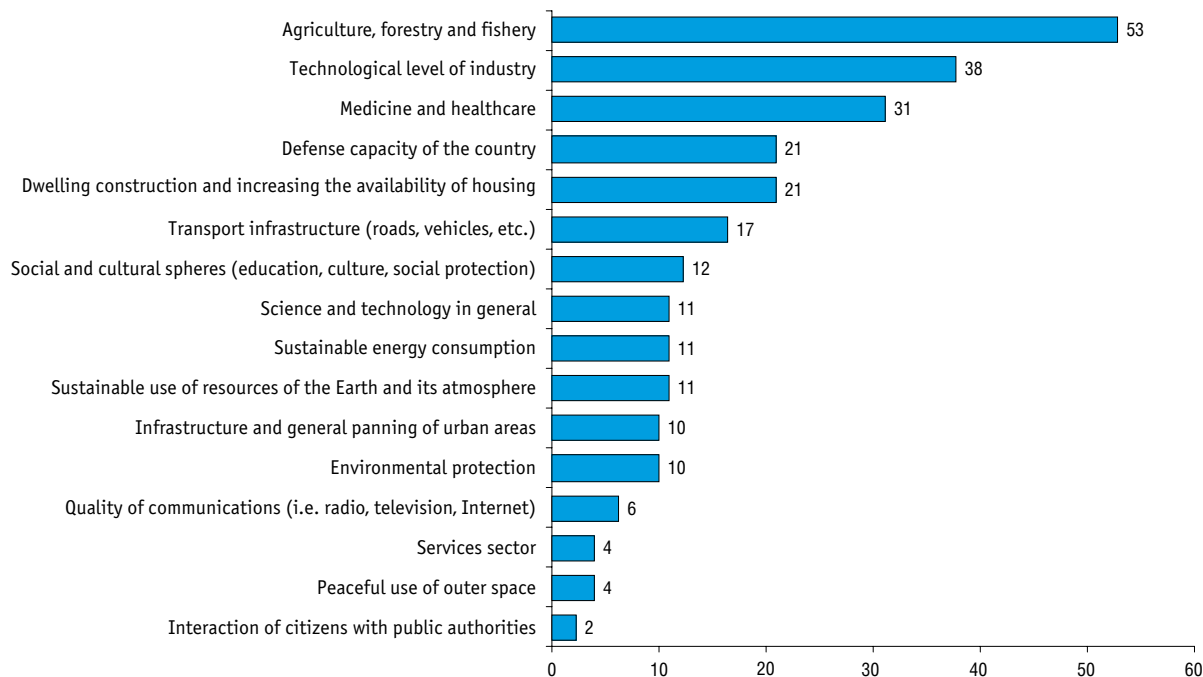


* Data for the USA refer to 2012.

7.7. PUBLIC PERCEPTIONS OF SCIENCE AND ENGINEERING OCCUPATIONS: 2014

(those who agreed with the statement as a percentage of all respondents)



7.8 PRIORITIES IN SOCIAL AND ECONOMIC DEVELOPMENT: 2014**(as a percentage of all respondents**)*

* The question was asked during the national public opinion poll conducted in the framework of the project led by the Russian Ministry of Education and Science, aimed at the formation of a research program in the field of social sciences, humanities and economics and providing assessments of the social effects of innovation (ID: RFMEFI60214X0003).

** The total exceeds 100% as the respondents could give multiple answers.



8. International Comparisons

8.1. GROSS DOMESTIC EXPENDITURE ON R&D (million current PPP \$)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Russia	8122.3	10726.9	16317.2	16487.8	18115.0	22902.9	26543.7	30060.9	34628.2	33062.4	35183.1	37851.3	38829.5
CIS countries													
Armenia	...	11.6	22.6	22.7	32.4	35.3	36.1	41.8	46.9	40.3	48.1	...	...
Azerbaijan	...	59.9	83.0	86.3	83.0	89.8	114.2	125.5	208.8	193.9	190.9	...	...
Belarus	...	373.7	394.7	463.9	566.5	625.4	1015.7	879.9	769.8	905.5	984.0	...	...
Kazakhstan	...	129.7	260.9	289.1	373.7	365.1	351.0	383.3	413.8	300.7	337.9	...	...
Kyrgyzstan	...	10.3	17.5	17.2	17.7	21.7	24.7	22.1	19.3	18.9	20.5	...	...
Republic of Moldova	...	...	22.5	26.7	33.9	37.3	52.9	57.0	53.1	48.2	48.1	...	...
Tajikistan	...	...	5.3	5.9	9.3	11.5	8.0	9.1	11.7	13.1	19.5	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...
Ukraine	...	1556.9	2395.3	2683.6	3074.4	2760.7	2748.9	2844.4	2470.9	2528.4	2404.1	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...
OECD countries													
Australia	...	7948.8	...	11680.9	...	15479.6	...	19133.0	...	20469.5	...	...	...
Austria	2887.1	4480.3	5701.0	6000.7	6802.5	7385.2	7910.4	8854.1	8893.8	9484.5	9971.2	10549.9	10817.2
Belgium	3795.9	5578.0	5894.6	6024.5	6171.1	6718.9	7162.1	7799.3	8075.1	8767.0	9739.4	10094.8	...
Canada	11332.7	16703.7	20141.2	21668.7	23090.0	24117.1	24778.3	24916.8	25051.8	24703.4	24756.8	24801.1	...
Chile	...	...	...	...	...	...	850.6	1016.6	951.4	1035.1	1172.8	1312.4	...
Czech Republic	1260.7	1865.8	2298.2	2453.8	2664.5	3085.7	3583.3	3496.9	3674.1	3796.8	4659.4	5442.9	...
Denmark	2184.7	...	4226.8	4333.2	4418.9	4860.1	5306.9	6235.8	6742.4	6812.5	6934.7	7137.5	...
Estonia	...	81.5	139.1	170.1	207.2	290.6	312.7	379.1	377.8	444.3	733.6	710.5	...
Finland	2169.5	4450.6	4954.1	5384.2	5601.2	6071.1	6631.2	7487.9	7543.0	7653.9	7897.7	7530.2	...

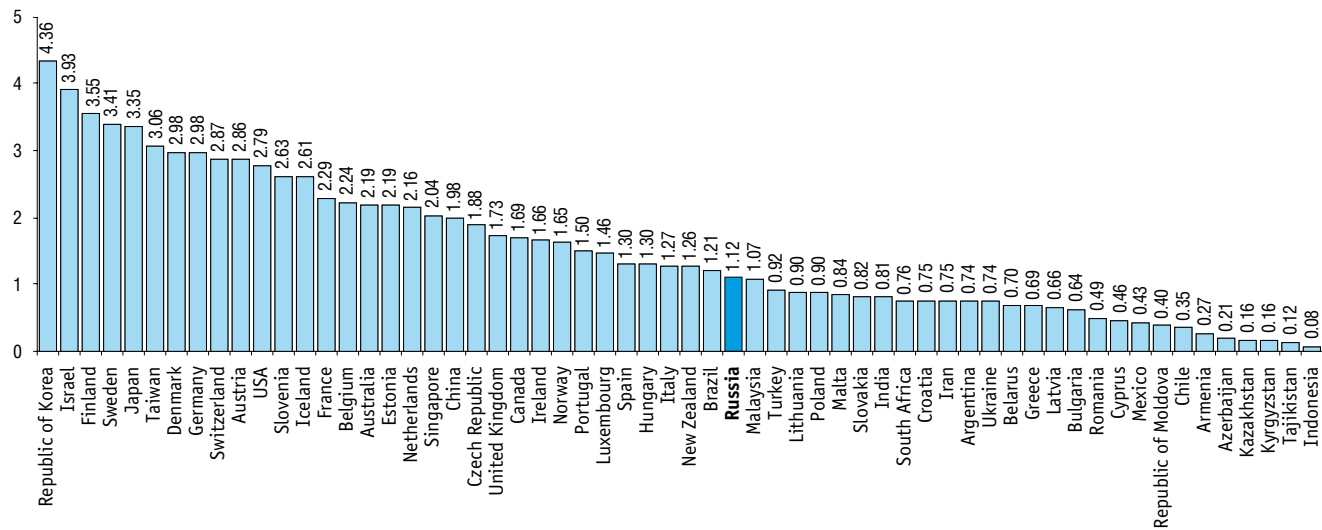
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	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
France	27431.0	33000.7	36869.9	37954.7	39235.7	42033.1	43976.3	46547.8	49944.2	50735.6	53310.7	55351.9	...
Germany	40160.4	52411.0	59456.8	61279.9	64298.8	70262.5	73956.6	81970.7	83133.7	87831.8	96971.5	102238.4	...
Greece	676.5	...	1420.0	1467.9	1615.5	1750.4	1865.3	...	...	...	2006.9	1994.3	...
Hungary	667.1	978.0	1458.8	1436.5	1615.7	1853.9	1869.2	2058.2	2391.7	2472.8	2721.7	2911.6	...
Iceland	95.0	216.7	251.1	...	287.1	326.6	310.3	333.6	339.2	...	317.6	...	...
Ireland	813.9	1223.9	1614.4	1828.6	2009.4	2254.9	2535.3	2738.3	3078.2	3166.8	3169.7	3340.1	...
Israel	2670.2	6170.1	6204.7	6651.8	6966.3	7422.0	8735.1	8706.4	8487.2	8641.7	9306.3	9735.3	...
Italy	11674.6	15266.7	17301.2	17468.4	17999.0	20216.9	22297.2	24076.1	24741.5	25154.4	25780.8	26320.5	...
Japan	82656.2	98749.8	112204.9	117601.4	128694.6	138576.7	147604.1	148719.2	137016.8	140656.9	148389.2	151727.9	...
Luxembourg	...	387.7	452.2	485.0	495.3	616.9	639.4	682.8	686.5	641.5	660.4	692.3	...
Mexico	1943.4	3362.5	4393.5	4746.6	5346.2	5475.0	5695.9	6626.6	6996.0	7883.2	8058.5	...	...
Netherlands	6549.2	9074.3	9871.4	10411.4	10904.4	11733.1	12051.3	12467.8	12416.7	12823.6	14597.9	15661.2	...
New Zealand	607.1	...	1107.5	...	1189.3	...	1433.1	...	1667.2	...	1766.6	...	...
Norway	1732.0	...	2987.4	3062.0	3315.9	3715.2	4186.3	4630.5	4694.5	4744.4	5064.4	5482.2	...
Poland	1809.5	2608.1	2476.4	2768.5	2982.4	3198.8	3617.5	4150.9	4883.0	5723.2	6409.2	7899.1	...
Portugal	707.7	1325.9	1444.5	1549.8	1755.2	2400.4	2987.2	3981.9	4381.7	4349.1	4152.7	4081.5	...
Republic of Korea	13335.2	18574.2	24015.9	27861.9	30618.3	35353.9	40695.4	43906.4	46129.9	52100.3	58379.7	65394.5	...
Slovakia	411.2	384.8	419.8	403.6	440.1	482.7	517.5	594.1	595.0	816.2	921.3	1150.3	...
Slovenia	392.8	482.7	519.9	619.5	674.9	796.7	794.7	972.6	1023.2	1163.1	1429.7	1539.7	...
Spain	4993.9	7799.7	10912.3	11777.8	13330.8	16078.0	18300.1	20414.9	20632.1	20338.5	20107.0	19555.7	...
Sweden	6288.3	...	10368.7	10443.4	10509.9	11955.0	12074.2	13496.1	12647.1	12586.8	13366.3	13899.3	...
Switzerland	...	5772.7	...	7465.4	...	...	...	10525.2	...	...	...	...	...
Turkey	1203.0	2826.7	2841.7	3566.1	4617.5	5198.0	7042.4	7744.5	8900.5	9853.6	11301.8	12655.9	...
United Kingdom	21870.7	27891.8	31056.7	31997.8	34080.7	37063.4	38700.2	39396.9	39581.2	38143.5	39217.4	39109.8	...
USA	184077.0	269513.0	293852.0	305640.0	328128.0	353328.0	380316.0	407238.0	406000.0	409599.0	429143.0	453544.0	...

(continued)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU countries which are not OECD members													
Bulgaria	...	258.8	310.5	336.1	347.4	390.8	428.6	498.8	551.0	637.1	650.7	749.1	...
Croatia	...	511.3	575.1	669.7	590.4	559.5	664.5	802.4	728.1	624.1	658.1	672.4	...
Cyprus	...	32.9	54.8	63.1	74.8	86.5	98.4	107.1	124.6	127.3	132.1	125.6	...
Latvia	...	84.4	93.4	113.3	167.6	240.3	232.0	252.0	166.0	223.1	286.4	292.2	...
Lithuania	...	178.1	278.7	335.7	364.6	433.3	498.5	524.4	481.6	487.1	622.7	656.1	...
Malta	...	...	19.8	42.3	48.0	55.7	55.6	58.3	58.3	75.3	85.0	102.3	...
Romania	974.6	468.8	644.3	731.9	831.8	1093.3	1438.4	1866.7	1493.2	1516.6	1725.9	1773.3	...
Other countries													
Argentina	...	1486.5	1366.8	1632.3	1933.0	2320.4	2657.2	2983.8	3440.9	3946.7	4592.3	5446.7	...
Brazil	...	12505.2	13110.7	13371.7	15372.6	17094.0	20226.5	22067.4	23195.1	25120.6	27430.0	...	...
China	12638.7	32658.3	56463.3	69298.1	85742.8	104380.2	123028.6	144765.1	184457.4	213009.7	247808.3	293549.5	...
India	...	12046.4	14231.8	16605.5	20406.0	22607.0	25276.1	28475.0	30303.2	32923.4	36195.5	...	...
Indonesia	...	337.3	...	...	...	...	...	...	794.9	...	...	...	...
Iran	...	...	3723.2	3500.7	4726.8	4692.9	...	5969.6	...	...	...	...	...
Malaysia	...	1038.3	...	1730.0	...	2084.8	...	3137.4	3988.5	4583.0	4902.9	...	...
Singapore	1030.6	2474.9	3124.5	3669.3	4246.7	4690.7	5736.7	6686.8	5523.6	6008.4	6922.4	6733.0	...
South Africa	...	...	3048.7	3507.6	4044.7	4569.4	4892.7	5217.8	4835.2	4412.3	4652.2	...	...
Taiwan	5546.1	8781.6	11690.0	13109.1	14527.0	16543.0	18421.6	20523.6	21454.6	23825.8	26184.3	27476.3	...

8.2. GROSS DOMESTIC EXPENDITURE ON R&D AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT: 2013*



* Or the nearest years for which data are available.

8.3. PERCENTAGE DISTRIBUTION OF GROSS DOMESTIC EXPENDITURE ON R&D BY SECTOR OF PERFORMANCE: 2013*

	Gross domestic expenditure on R&D	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
Russia	100	30.3	60.6	9.0	0.1
CIS countries					
Armenia	100	89.1	...	10.9	...
Azerbaijan	100	72.4	17.8	9.8	...
Belarus	100	20.5	69.9	9.6	...
Kazakhstan	100	25.0	51.6	16.4	7.0
Kyrgyzstan	100	62.0	23.3	14.6	...
Republic of Moldova	100	70.0	19.0	11.0	...
Tajikistan	100	67.0	...	33.0	...
Turkmenistan	...	...	...	...	...
Ukraine	100	37.9	55.7	6.3	...
Uzbekistan	...	...	...	...	...
OECD countries					
Australia	100	12.4	58.4	26.6	3.0
Austria	100	5.1	68.8	25.6	0.5
Belgium	100	8.2	67.8	23.2	0.9
Canada	100	9.0	52.3	38.3	0.4
Chile	100	4.2	32.4	35.3	28.0
Czech Republic	100	18.4	53.6	27.5	0.5
Denmark	100	2.2	65.7	31.8	0.4
Estonia	100	9.3	57.5	32.1	1.1

* Or the nearest years for which data are available.

(continued)

	Gross domestic expenditure on R&D	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
Finland	100	9.0	68.7	21.6	0.7
France	100	13.6	64.6	20.6	1.2
Germany	100	14.3	67.8	18.0	...
Greece	100	24.8	34.3	39.9	1.0
Hungary	100	14.4	65.6	18.4	...
Iceland	100	17.7	53.1	26.4	2.8
Ireland	100	4.8	72.0	23.1	...
Israel	100	1.8	84.4	12.6	1.1
Italy	100	13.7	54.5	28.6	3.1
Japan	100	8.6	76.6	13.4	1.4
Luxembourg	100	18.9	68.6	12.4	...
Mexico	100	30.5	39.0	28.9	1.6
Netherlands	100	10.7	56.6	32.7	...
New Zealand	100	22.7	45.4	31.8	...
Norway	100	16.4	52.3	31.3	...
Poland	100	28.0	37.2	34.4	0.4
Portugal	100	6.5	47.0	38.7	7.8
Republic of Korea	100	11.3	77.9	9.5	1.3
Slovakia	100	24.5	41.3	34.0	0.1
Slovenia	100	13.1	75.7	11.1	0.0
Spain	100	19.1	53.0	27.7	0.2
Sweden	100	4.8	67.8	27.1	0.3
Switzerland	100	0.7	73.5	24.2	1.6
Turkey	100	11.0	45.1	43.9	...
United Kingdom	100	8.2	63.4	26.5	1.8
USA	100	12.3	69.8	13.8	4.0

(continued)

	Gross domestic expenditure on R&D	Government sector	Business enterprise sector	Higher education sector	Private non-profit sector
EU countries which are not OECD members					
Bulgaria	100	29.7	61.0	8.7	0.6
Croatia	100	25.5	50.1	24.4	...
Cyprus	100	14.4	15.4	57.3	12.9
Latvia	100	29.0	28.3	42.7	...
Lithuania	100	19.8	25.4	54.7	...
Malta	100	10.2	54.1	35.7	...
Romania	100	40.9	39.0	19.7	0.4
Other countries					
Argentina	100	45.6	21.5	31.2	1.8
Brazil	100	...	...	...	...
China	100	16.3	76.2	7.6	...
India	100	60.5	35.5	4.1	...
Indonesia	100	43.2	18.8	37.9	...
Iran	100	56.1	10.6	33.3	...
Malaysia	100	14.4	56.7	28.9	...
Singapore	100	10.0	60.9	29.0	...
South Africa	100	22.4	47.1	29.8	0.8
Taiwan	100	14.2	74.2	11.3	0.3

8.4. PERCENTAGE DISTRIBUTION OF GROSS DOMESTIC EXPENDITURE ON R&D BY SOURCE OF FUNDS: 2013*

	Gross domestic expenditure on R&D	Government	Business enterprise sector	Other funds from national sources	Funds from abroad
Russia	100	67.6**	28.2	1.2	3.0
CIS countries					
Armenia	100	59.4	...	...	3.4
Azerbaijan	100	89.7	9.5	0.8	...
Belarus	100	45.5	45.8	...	8.7
Kazakhstan	100	24.9	51.6	23.2	0.3
Kyrgyzstan	100	57.7	38.6	1.4	0.9
Republic of Moldova	100	...	...	...	9.4
Tajikistan	100	82.1	1.6	0.1	...
Turkmenistan	...	...	...	...	...
Ukraine	100	46.0	27.2	0.2	25.8
Uzbekistan	...	...	...	...	...
OECD countries					
Australia	100	34.6	61.9	1.9	1.6
Austria	100	40.4	43.9	0.5	15.2
Belgium	100	23.4	60.2	3.5	13.0
Canada	100	34.5	48.4	11.3	5.8
Chile	100	37.1	32.9	11.9	18.1
Czech Republic	100	36.8	36.4	0.9	25.9
Denmark	100	29.0	60.1	3.7	7.2
Estonia	100	38.3	51.3	0.4	10.0

* Or the nearest years for which data are available.

** Including federal budget appropriations, general university funds and funds of government sector institutions (e.g. own funds of institutions).

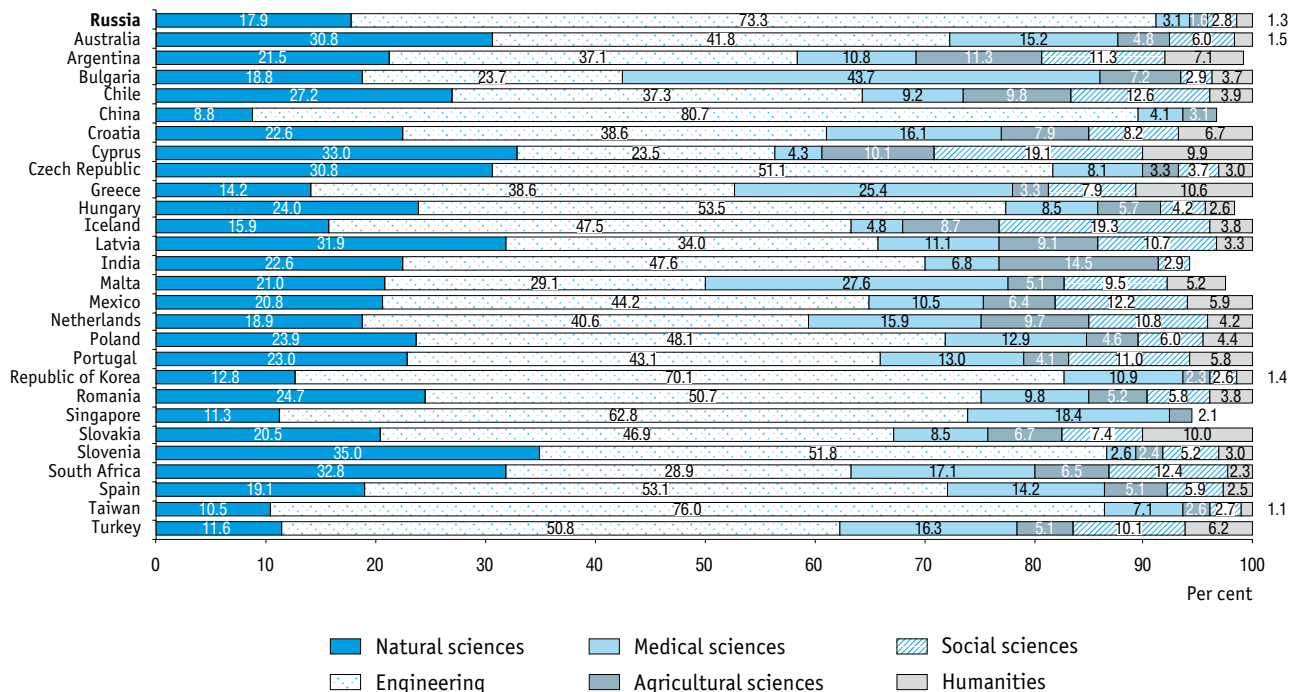
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	Gross domestic expenditure on R&D	Government	Business enterprise sector	Other funds from national sources	Funds from abroad
Finland	100	26.7	63.1	1.4	8.8
France	100	35.4	55.0	1.9	7.7
Germany	100	29.8	65.6	0.3	4.2
Greece	100	50.4	31.0	2.9	15.8
Hungary	100	36.9	46.9	0.9	15.4
Iceland	100	40.0	49.8	1.9	8.2
Ireland	100	27.3	50.3	1.0	21.4
Israel	100	12.2	36.6	3.9	47.3
Italy	100	41.9	45.1	3.9	9.1
Japan	100	16.8	76.1	6.6	0.4
Luxembourg	100	30.5	47.8	1.3	20.4
Mexico	100	59.6	36.8	2.9	0.7
Netherlands	100	35.5	49.9	3.6	10.9
New Zealand	100	41.4	40.0	12.2	6.3
Norway	100	46.5	44.2	1.5	7.8
Poland	100	51.3	32.3	3.0	13.3
Portugal	100	41.8	44.0	8.3	5.9
Republic of Korea	100	23.8	74.7	1.1	0.3
Slovakia	100	41.6	37.7	2.1	18.7
Slovenia	100	28.7	62.2	0.5	8.6
Spain	100	44.5	44.3	4.5	6.7
Sweden	100	27.7	57.3	3.9	11.1
Switzerland	100	22.8	68.2	3.0	6.0
Turkey	100	28.2	46.8	24.4	0.6
United Kingdom	100	28.9	45.6	5.7	19.7
USA	100	30.8	59.1	6.3	3.8

(continued)

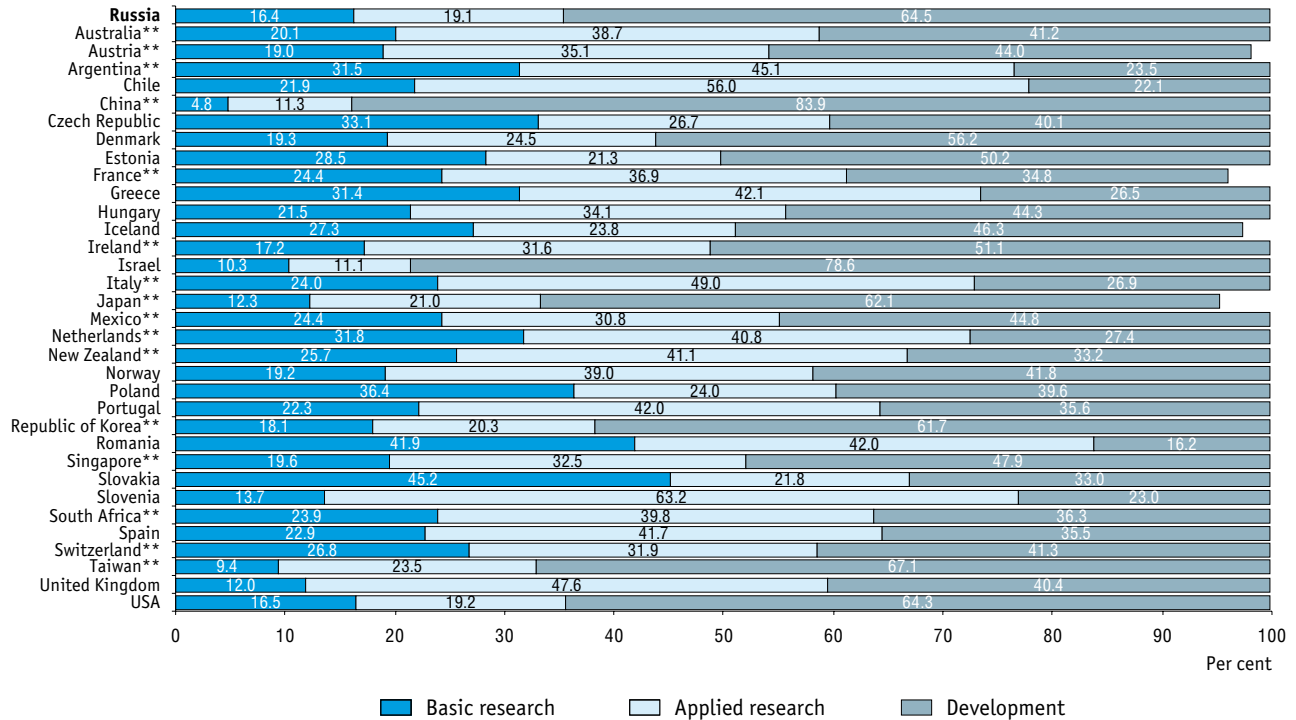
	Gross domestic expenditure on R&D	Government	Business enterprise sector	Other funds from national sources	Funds from abroad
EU countries which are not OECD members					
Bulgaria	100	31.6	19.4	0.6	48.3
Croatia	100	39.7	42.8	2.0	15.5
Cyprus	100	66.4	10.9	5.3	17.5
Latvia	100	23.9	21.8	2.7	51.6
Lithuania	100	34.6	27.4	0.9	37.1
Malta	100	34.0	44.3	1.5	20.2
Romania	100	49.9	34.4	1.2	14.4
Other countries					
Argentina	100	74.0	21.3	4.1	0.6
Brazil	100	52.6	45.2	2.1	...
China	100	21.6	74.0	...	1.0
India	100	...	...	...	...
Indonesia	100	84.5	14.7	0.2	...
Iran	100	61.6	30.9	7.4	...
Malaysia	100	41.4	55.0	3.1	0.3
Singapore	100	38.5	53.4	2.2	5.9
South Africa	100	43.1	39.0	2.9	15.0
Taiwan	100	24.8	74.1	1.1	0.1

8.5. GROSS DOMESTIC EXPENDITURE ON R&D BY FIELD OF SCIENCE AND TECHNOLOGY: 2013*



* Or the nearest years for which data are available.

8.6. INTRAMURAL CURRENT EXPENDITURE ON R&D BY TYPE OF ACTIVITY: 2013*



* Or the nearest years for which data are available.
 ** As a percentage of gross domestic expenditure on R&D.

8.7. GOVERNMENT BUDGET APPROPRIATIONS ON R&D

(million current PPP \$)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Russia	5977.1	4784.6	9087.9	9047.1	13254.0	15381.0	18502.4	20829.0	27813.7	26060.3	28259.5	29802.7	34266.9
CIS countries													
Australia	2330.1	2853.8	3671.3	3293.7	3713.4	3959.5	3800.9	3846.6	4524.7	4581.8	4697.0	4698.7	4721.4
Austria	1229.4	1431.6	1641.9	1758.0	1827.3	1984.1	2038.9	2330.6	2556.4	2697.9	2925.4	2996.8	3076.7
Belgium	1164.0	1599.3	1916.4	1910.2	1987.2	2205.8	2281.3	2684.0	2677.6	2780.9	2855.4	2989.9	...
Canada	3821.5	4578.2	5903.5	6175.2	6777.1	6897.0	7545.2	7933.5	8414.6	8465.8	7736.9	...	...
Chile	...	...	...	...	...	...	...	...	...	...	691.5	...	...
Czech Republic	...	838.0	956.7	989.7	1148.4	1305.6	1467.1	1436.7	1661.4	1620.0	1914.0	1967.3	1963.4
Denmark	791.7	1172.3	1205.5	1244.0	1285.4	1420.9	1627.9	1852.5	2099.1	2195.9	2382.6	2454.9	2485.6
Estonia	...	45.0	67.6	73.6	90.1	129.5	139.6	189.6	184.4	196.1	240.2	272.2	287.4
Finland	929.2	1304.1	1438.0	1573.4	1651.7	1785.4	1847.8	1976.6	2143.4	2271.5	2284.0	2275.2	2196.6
France	13254.6	14757.5	16855.9	16913.9	18084.5	16192.0	15785.9	19214.2	20419.8	19095.3	19906.7	17997.1	17817.9
Germany	16057.0	16828.4	18642.7	18889.1	19865.0	21047.5	22495.7	24261.3	26932.4	28900.2	30495.7	30955.7	32146.9
Greece	400.3	620.4	662.8	797.0	889.5	981.2	917.8	1466.4	1222.7	974.8	935.6	1091.3	1100.4
Hungary	...	...	...	...	708.7	676.4	747.1	881.2	956.0	767.0	669.2	781.5	...
Iceland	44.9	76.3	96.6	87.3	91.0	94.4	98.8	116.6	130.9	120.2	124.0	132.2	144.6
Ireland	209.4	314.4	521.2	610.7	719.6	784.4	940.4	986.2	1010.9	987.9	960.8	932.6	959.1
Israel	885.7	1294.0	1257.3	1197.0	1115.0	1092.5	1107.2	1173.8	1179.1	1195.1	1256.6	1330.2	...
Italy	6725.9	9381.2	...	...	11050.6	10929.1	12155.4	12602.6	12594.7	12238.2	11570.2	11707.5	...
Japan	14339.3	21191.6	25736.9	26886.9	27617.8	28675.2	29188.4	30559.9	30871.6	32161.3	33953.0	35273.5	34956.0
Luxembourg	...	30.1	60.4	71.6	83.7	118.1	153.8	191.9	223.6	247.5	283.1	312.8	318.2
Mexico	1264.6	2118.9	2707.0	2368.0	2599.5	2682.3	2862.9	3597.0	3719.6	4708.9	4735.8	...	...
Netherlands	2828.7	3796.9	4238.2	4433.0	4529.7	5002.1	5190.8	5438.9	5787.6	5718.6	5981.8	5651.8	5572.0
New Zealand	307.6	...	478.8	...	...	573.1	542.0	657.7	690.7	678.1	729.2	759.5	747.5

(continued)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Norway	822.6	1058.5	1348.2	1462.0	1554.7	1807.8	1978.3	2113.8	2312.2	2417.0	2504.5	2644.1	2750.7
Poland	1140.2	1541.4	...	1553.0	1547.5	1813.9	2009.8	2079.3	2450.2	2883.2	2655.6	3155.5	...
Portugal	559.8	1020.8	1200.0	1277.8	1581.1	1687.5	1926.2	2420.9	2778.1	2797.5	2794.3	2571.3	2613.8
Republic of Korea	...	5029.0	7023.7	7660.2	8539.3	9345.1	10582.4	11895.0	12928.6	14205.9	15265.4	...	...
Slovakia	171.6	213.2	217.4	236.5	244.1	268.0	238.3	348.2	449.7	495.7	636.4	579.3	523.6
Slovenia	...	174.2	223.0	262.0	272.7	285.5	286.1	298.9	381.5	339.7	350.8	315.1	317.8
Spain	3008.9	5180.8	7629.0	5928.7	6479.5	9168.1	10954.9	11684.6	12309.7	11582.8	10280.5	9032.2	...
Sweden	2085.8	1733.2	2491.2	2530.2	2535.0	2729.6	2777.9	2917.3	3182.5	3280.7	3285.2	3583.7	3646.1
Switzerland	...	1460.1	...	1926.2	...	2118.5	...	2686.2	...	3074.5	...	...	...
Turkey	...	...	...	...	...	...	...	...	...	...	...	...	...
United Kingdom	8792.9	10371.3	13131.5	13159.2	13228.0	14093.7	14228.8	13991.9	14341.1	13398.9	12894.5	12982.0	...
USA	68791.0	83612.5	114866.1	126270.5	131259.0	136019.0	141890.3	144391.0	164292.0	148962.0	144379.0	143737.0	133515.0
Other countries													
Argentina	...	838.4	766.8	844.3	1036.1	1224.8	1522.5	1744.0	2156.0	2322.4	2543.9	2949.4	...
Romania	554.6	178.2	266.2	322.1	441.7	796.6	1018.4	1283.6	968.2	935.1	926.3	799.7	804.0
Taiwan	...	2837.4	4096.4	4504.3	4639.9	5629.3	5619.6	5976.8	6326.6	6711.9	7049.1	6986.8	6943.6

8.8. R&D PERSONNEL: 2013*
(person-year; in full-time equivalent)

	R&D personnel	Researchers
Russia	826733	440581
CIS countries		
Armenia	5718	4458
Azerbaijan	18687	11891
Belarus	31194	19668
Kazakhstan	15699	10493
Kyrgyzstan	3333	2224
Republic of Moldova	4390	2767
Tajikistan	2537	1565
Turkmenistan	...	...
Ukraine	110918	57387
Uzbekistan	20312	15029
OECD countries		
Australia	137489	92649
Austria	63682	38637
Belgium	65979	44052
Canada	228970	157360
Chile	14640	6803
Czech Republic	60223	33169
Denmark	55711	37675
Estonia	5855	4582

* Or the nearest years for which data are available. For several CIS countries (Azerbaijan, Armenia, Belarus, Kyrgyzstan, Tajikistan), Iran and Indonesia the calculation is based on headcount data. The data for Germany, Mexico and Indonesia refer to different years.

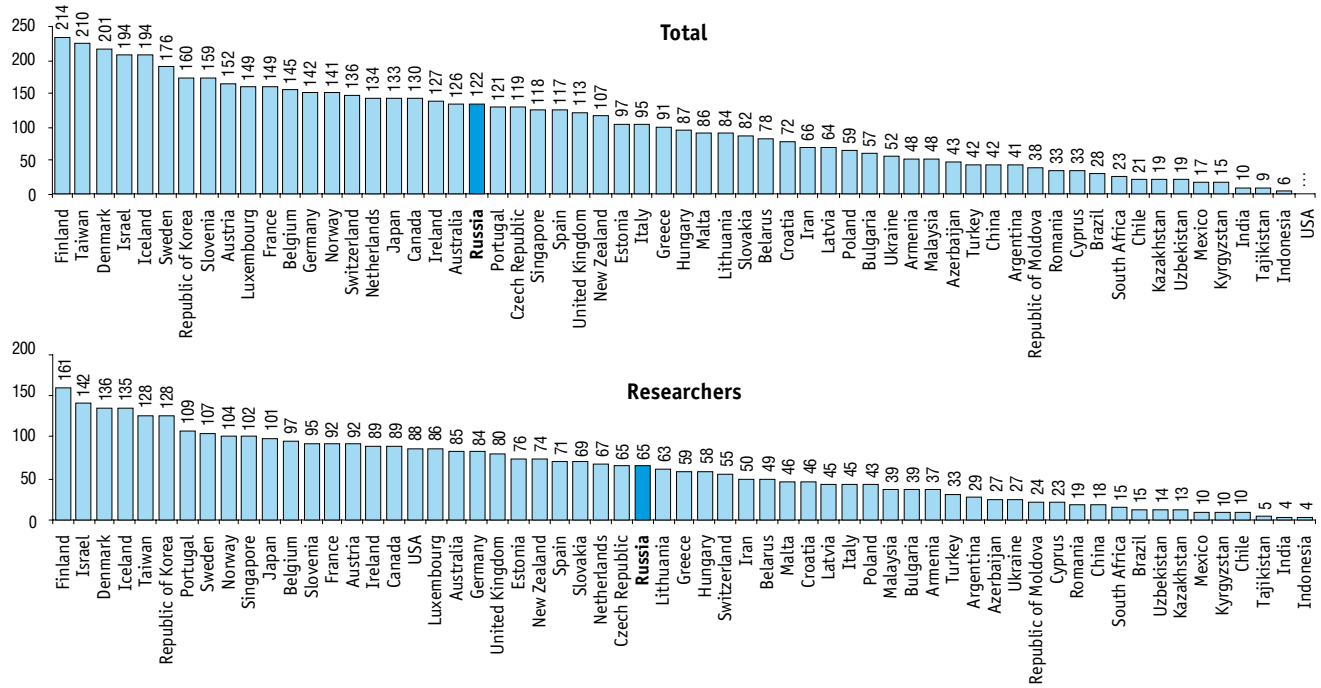
(continued)

	R&D personnel	Researchers
Finland	54047	40468
France	402318	249086
Germany	590460	348416
Greece	37361	24122
Hungary	35732	23837
Iceland	3244	2258
Ireland	22791	16076
Israel	68175	49797
Italy	233927	110823
Japan	851132	646347
Luxembourg	5666	3272
Mexico	70293	46125
Netherlands	116666	58599
New Zealand	23600	16300
Norway	37707	27841
Poland	90716	67001
Portugal	56192	50694
Republic of Korea	395990	315589
Slovakia	18127	15271
Slovenia	14974	8884
Spain	208831	126778
Sweden	81272	49280
Switzerland	62066	25142
Turkey	105122	82122
United Kingdom	358045	252652
USA	...	1252948

(continued)

	R&D personnel	Researchers
EU countries which are not OECD members		
Bulgaria	16746	11295
Croatia	10368	6688
Cyprus	1270	895
Latvia	5593	3904
Lithuania	10675	8023
Malta	1490	793
Romania	31135	18016
Other countries		
Argentina	71872	51598
Brazil	266709	138653
China	3246840	1404017
India	441126	192819
Indonesia	55118	41143
Iran	141871	107810
Malaysia	57405	47242
Singapore	39459	34141
South Africa	30978	20115
Taiwan	227976	139215

8.9. R&D PERSONNEL PER 10 000 EMPLOYMENT: 2013* (headcount)



* Or the nearest years for which data are available. For several CIS countries (Azerbaijan, Armenia, Belarus, Kyrgyzstan and Tajikistan), Iran and Indonesia the calculation is based on headcount data, for other countries it is based on the full-time equivalent.

8.10. PERCENTAGE DISTRIBUTION OF RESEARCHERS BY SECTOR OF PERFORMANCE: 2013*

	Government sector	Business enterprise sector	Higher education sector
Russia	32.9	46.6	20.2
CIS countries			
Armenia	77.4	...	22.6
Azerbaijan	71.2	11.6	17.2
Belarus	30.3	59.1	10.6
Kazakhstan	27.4	26.6	38.4
Kyrgyzstan	52.7	13.4	33.9
Republic of Moldova	71.8	7.7	20.5
Tajikistan	82.5	...	17.5
Turkmenistan	...	...	...
Ukraine	52.4	37.6	10.0
Uzbekistan	32.8	12.8	54.0
OECD countries			
Australia	8.9	29.9	57.8
Austria	4.1	62.3	32.9
Belgium	6.4	50.4	42.6
Canada	6.0	59.4	34.3
Chile	5.9	29.9	52.3
Czech Republic	18.3	46.6	34.5
Denmark	3.2	59.0	37.3
Estonia	11.9	31.0	55.3

* Or the nearest years for which data are available. For several CIS countries (Azerbaijan, Armenia, Belarus, Kyrgyzstan and Tajikistan), the calculation is based on headcount data, for other countries it is based on the full-time equivalent.

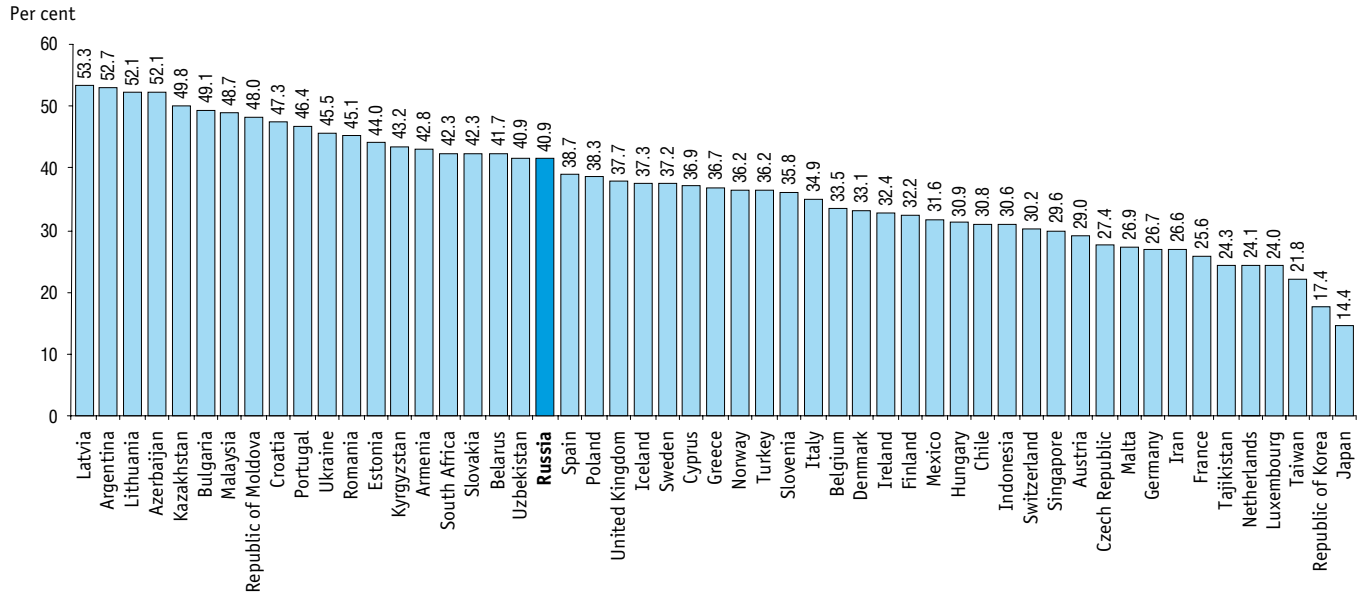
(continued)

	Government sector	Business enterprise sector	Higher education sector
Finland	11.0	57.5	30.6
France	10.8	59.5	28.6
Germany	16.0	56.3	27.7
Greece	18.2	18.0	62.9
Hungary	19.6	55.5	24.9
Iceland	18.2	46.9	32.5
Ireland	3.1	60.7	36.2
Israel	1.0	89.6	8.6
Italy	16.9	38.9	40.8
Japan	4.9	74.5	19.5
Luxembourg	21.4	52.2	26.4
Mexico	19.8	41.1	36.2
Netherlands	11.2	52.7	36.1
New Zealand	11.7	31.3	57.1
Norway	16.7	47.9	35.4
Poland	20.3	22.5	56.9
Portugal	4.3	23.9	59.5
Republic of Korea	7.0	78.3	13.9
Slovakia	19.4	16.3	64.1
Slovenia	20.8	52.0	27.0
Spain	17.2	35.4	47.1
Sweden	4.1	61.9	33.6
Switzerland	1.9	41.1	57.0
Turkey	7.7	42.7	49.7
United Kingdom	3.0	35.8	59.6
USA	...	68.1	...

(continued)

	Government sector	Business enterprise sector	Higher education sector
EU countries which are not OECD members			
Bulgaria	47.3	18.5	33.2
Croatia	29.2	17.4	53.2
Cyprus	10.1	19.0	61.5
Latvia	18.0	15.2	66.8
Lithuania	17.1	16.4	66.5
Malta	3.4	64.8	31.8
Romania	35.4	27.5	36.6
Other countries			
Argentina	45.0	8.6	45.2
Brazil	5.5	25.9	67.8
China	19.2	62.1	18.7
India	45.6	38.7	11.5
Indonesia	29.5	35.5	35.0
Iran	33.6	15.0	51.5
Malaysia	5.4	12.4	82.2
Singapore	5.1	50.6	44.2
South Africa	13.1	22.1	63.8
Taiwan	10.5	65.6	23.4

8.1.1. FEMALE PROPORTION IN THE NUMBER OF RESEARCHERS: 2013*



* Or the nearest years for which data are available. The calculation is based on headcount data.

8.12. PUBLICATIONS AND CITATIONS IN SCIENTIFIC JOURNALS INDEXED IN WEB OF SCIENCE: 2009–2013*

	Number of publications	Number of citations	Number of citations per publication
Russia	141 615	392 970	2.77
CIS countries**			
Armenia	3 283	20 041	6.1
Azerbaijan	2 328	8 745	3.76
Belarus	5 312	21 716	4.09
Kazakhstan	1 784	3 901	2.19
Kyrgyzstan	360	1 050	2.92
Republic of Moldova	1 242	4 639	3.74
Ukraine	24 769	66 030	2.67
Uzbekistan	1 695	4 156	2.45
OECD countries			
Australia	222 881	1 470 672	6.6
Austria	62 228	466 512	7.5
Belgium	91 507	724 269	7.91
Canada	288 331	2 048 186	7.1
Chile	27 422	134 960	4.92
Czech Republic	48 513	254 882	5.25
Denmark	66 340	568 948	8.58
England	419 432	3 350 474	7.99
Estonia	7 184	47 546	6.62
Finland	53 043	390 882	7.37

(continued)

	Number of publications	Number of citations	Number of citations per publication
France	329 728	2 304 350	6.99
Germany	468 191	3 479 908	7.43
Greece	53 368	308 736	5.79
Hungary	29 377	168 781	5.75
Iceland	4 198	44 837	10.68
Ireland	34 886	256 649	7.36
Israel	60 789	413 086	6.8
Italy	276 604	1 863 123	6.74
Japan	384 578	2 056 462	5.35
Luxembourg	3 268	18 066	5.53
Mexico	51 784	214 122	4.13
Netherlands	167 874	1 459 312	8.69
New Zealand	38 912	242 020	6.22
Norway	52 183	355 224	6.81
Poland	105 581	405 896	3.84
Portugal	53 734	300 433	5.59
Republic of Korea	224 018	993 026	4.43
Scotland	65 279	575 093	8.81
Slovakia	14 966	64 090	4.28
Slovenia	17 817	84 316	4.73
Spain	245 017	1 515 681	6.19
Sweden	107 797	843 348	7.82
Switzerland	120 410	1 134 055	9.42

(continued)

	Number of publications	Number of citations	Number of citations per publication
Turkey	117 195	349 831	2.99
USA	1 767 699	13 680 135	7.74
Wales	22 756	173 125	7.61
EU countries which are not OECD members			
Bulgaria	11 227	50 192	4.47
Croatia	17 498	70 816	4.05
Cyprus	4 052	21 566	5.32
Latvia	2 619	10 664	4.07
Lithuania	9 721	34 525	3.55
Malta	797	3 116	3.91
Romania	35 722	102 949	2.88
Other countries			
Argentina	39 235	193 142	4.92
Brazil	175 759	604 063	3.44
China	832 233	3 652 604	4.39
Egypt	32 178	106 566	3.31
Georgia	2 419	16 788	6.94
India	229 024	843 014	3.68
Indonesia	6 109	28 419	4.65

(continued)

	Number of publications	Number of citations	Number of citations per publication
Iran	102 943	312 453	3.04
Malaysia	36 021	110 605	3.07
Pakistan	25 738	79 015	3.07
Saudi Arabia	28 020	98 513	3.52
Serbia	22 574	69 090	3.06
Singapore	49 565	366 148	7.39
South Africa	43 564	220 502	5.06
Taiwan	130 145	571 832	4.39
Thailand	29 041	132 561	4.56

* The data refer to the number of publications and citations received in 2009–2013 by publications issued within the same period. Data are presented according to Essential Science Indicators.

** The data on Tajikistan and Turkmenistan are excluded due to the insignificant number of publications within the system of Essential Science Indicators.

8.13. PUBLICATIONS AND CITATIONS IN SCIENTIFIC JOURNALS INDEXED IN SCOPUS: 1996–2013*

	Number of publications	Number of citations	Number of citations per publication
Russia	629 671	3 664 726	6.00
CIS countries			
Armenia	10 511	92 664	9.76
Azerbaijan	8 296	25 625	3.48
Belarus	26 920	148 685	5.64
Kazakhstan	7 423	26 836	5.03
Kyrgyzstan	1 156	6 394	6.80
Republic of Moldova	5 022	33 645	7.16
Tajikistan	1 005	3 005	3.53
Turkmenistan	238	1 511	8.00
Ukraine	122 263	539 896	4.65
Uzbekistan	8 138	34 597	4.41
OECD countries			
Australia	782 149	11 447 009	18.24
Austria	241 610	3 668 207	18.04
Belgium	335 160	5 658 300	19.68
Canada	1 110 886	18 826 873	20.05
Chile	79 084	842 308	14.36
Czech Republic	185 849	1 550 054	10.09
Denmark	234 852	4 653 794	23.38
Estonia	22 131	255 452	14.79

(continued)

	Number of publications	Number of citations	Number of citations per publication
Finland	212 195	3 677 439	19.94
France	1 421 190	21 193 343	16.85
Germany	1 983 270	30 644 118	17.39
Greece	203 437	2 254 244	13.40
Hungary	124 265	1 416 878	12.71
Iceland	12 399	245 501	25.76
Ireland	119 983	1 647 369	17.85
Israel	247 561	4 346 150	19.29
Italy	1 083 546	15 317 599	16.45
Japan	1 929 402	23 633 462	13.01
Luxembourg	8 573	70 588	13.94
Mexico	188 449	1 642 228	10.91
Netherlands	614 552	12 103 482	23.03
New Zealand	146 264	2 084 166	17.20
Norway	183 463	2 802 491	18.83
Poland	387 982	2 939 536	8.93
Portugal	164 769	1 696 543	14.10
Republic of Korea	658 602	5 770 844	11.49
Slovakia	64 247	473 062	8.52
Slovenia	57 652	503 033	10.49
Spain	857 158	10 584 940	15.08
Sweden	417 156	8 069 960	21.76
Switzerland	445 163	9 238 679	24.53

(continued)

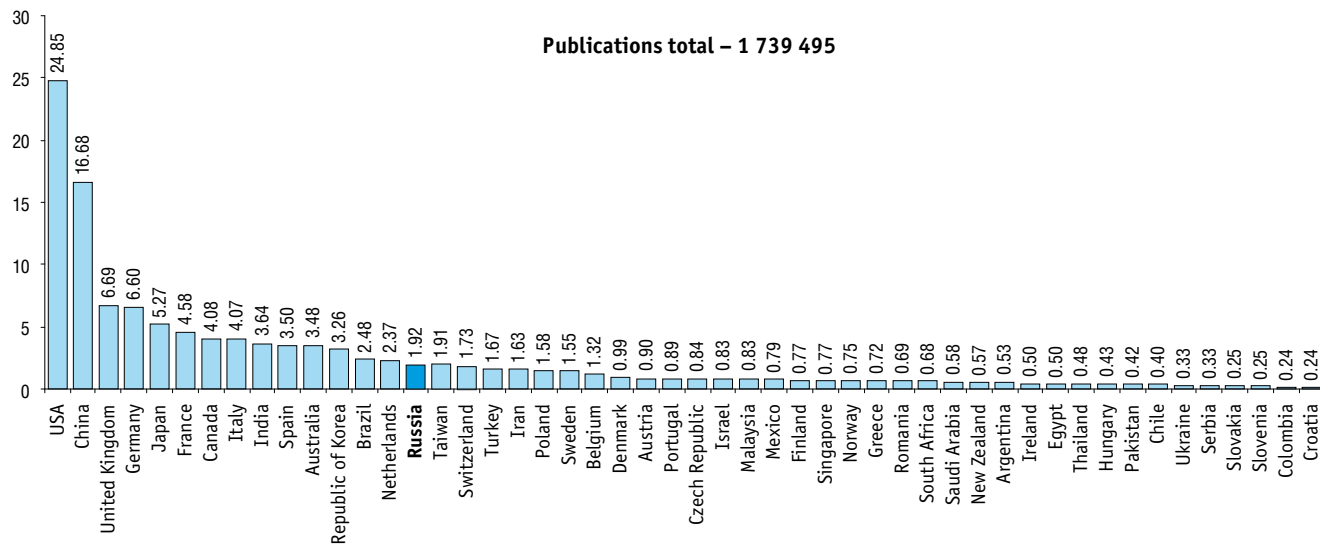
	Number of publications	Number of citations	Number of citations per publication
Turkey	348 836	2 417 631	9.07
United Kingdom	2 141 375	37 450 384	19.82
USA	7 846 972	152 984 430	22.02
EU countries which are not OECD members			
Bulgaria	50 312	384 937	8.49
Croatia	65 197	377 749	7.00
Cyprus	12 652	107 432	13.97
Latvia	12 144	83 101	9.21
Lithuania	28 091	187 580	9.22
Malta	3 157	26 894	13.52
Romania	109 831	503 716	6.84
Other countries			
Argentina	131 915	1 416 615	12.53
Brazil	529 841	4 164 813	10.98
China	3 129 719	14 752 062	6.81
Egypt	104 784	659 779	8.42
Georgia	8 759	67 334	8.70
India	868 719	5 666 045	8.83
Indonesia	25 481	185 695	11.86

(continued)

	Number of publications	Number of citations	Number of citations per publication
Iran	245 221	1 135 790	9.15
Malaysia	125 084	497 646	8.68
Pakistan	70 208	328 281	6.95
Saudi Arabia	74 210	403 827	8.09
Serbia	37 658	131 298	5.40
Singapore	171 037	2 051 237	14.42
South Africa	144 413	1 452 790	12.43
Taiwan	446 282	3 993 380	11.35
Thailand	95 690	790 474	12.09

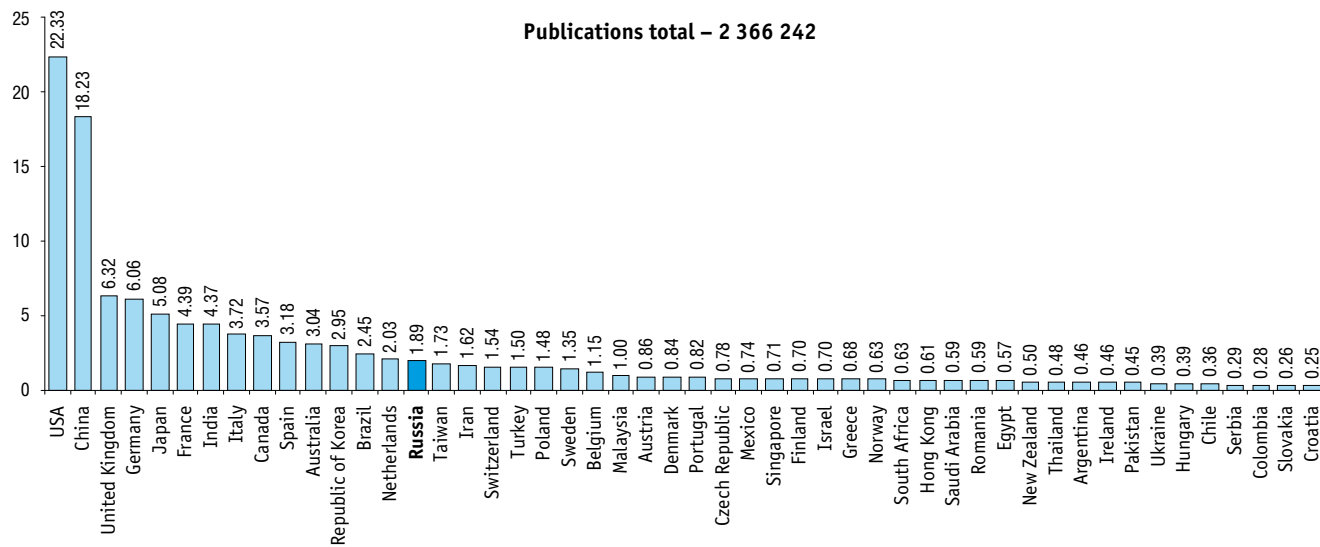
* According to SCImago Journal & Country Rank.

8.14. COUNTRY SHARES IN THE TOTAL NUMBER OF PUBLICATIONS IN SCIENTIFIC JOURNALS INDEXED IN WEB OF SCIENCE: 2013*

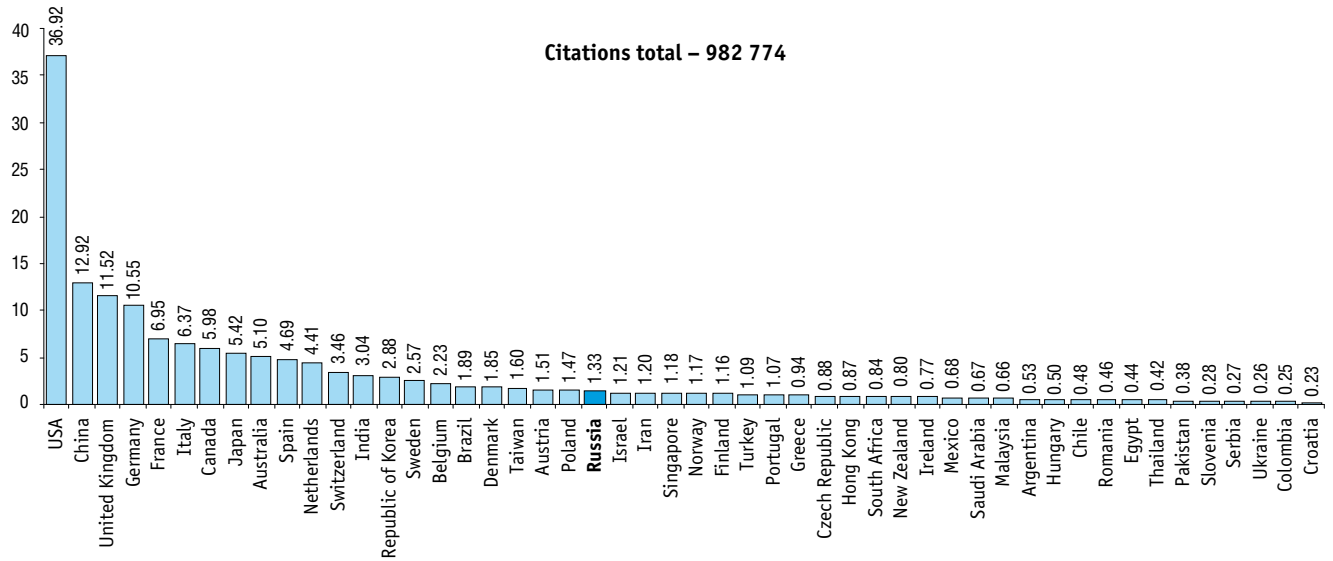


* In graphs 8.14 and 8.15, the term 'publication' refers to three types of documents: articles, reviews, reports.

8.15. COUNTRY SHARES IN THE TOTAL NUMBER OF PUBLICATIONS IN SCIENTIFIC JOURNALS INDEXED IN SCOPUS: 2013

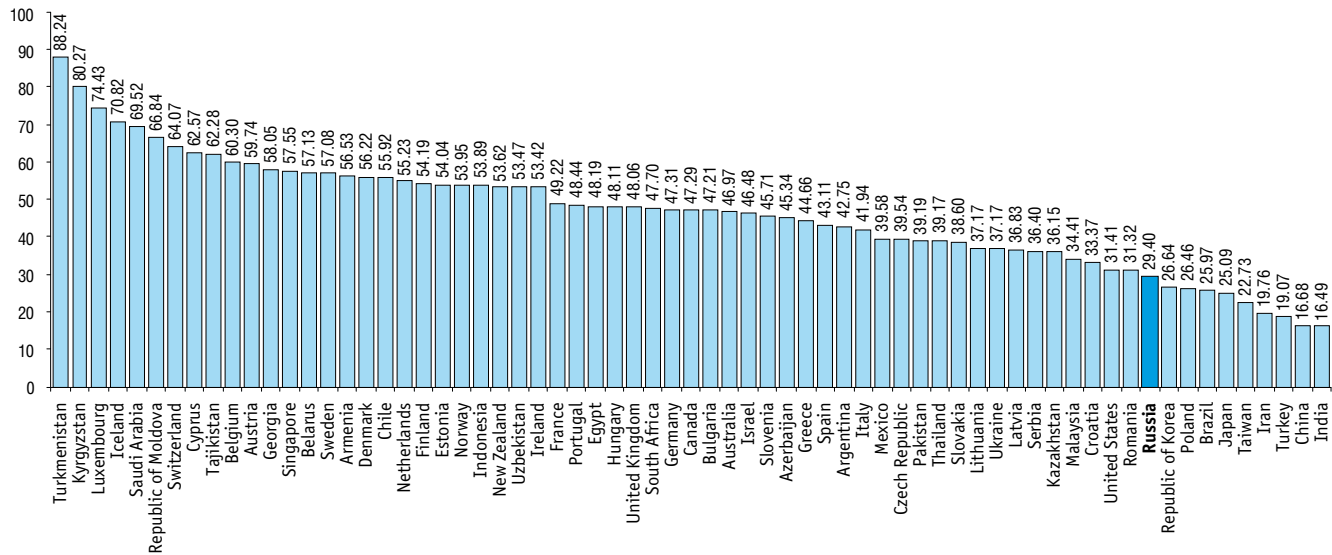


8.16. COUNTRY SHARES IN THE TOTAL NUMBER OF CITATIONS IN SCIENTIFIC JOURNALS INDEXED IN SCOPUS: 2013*



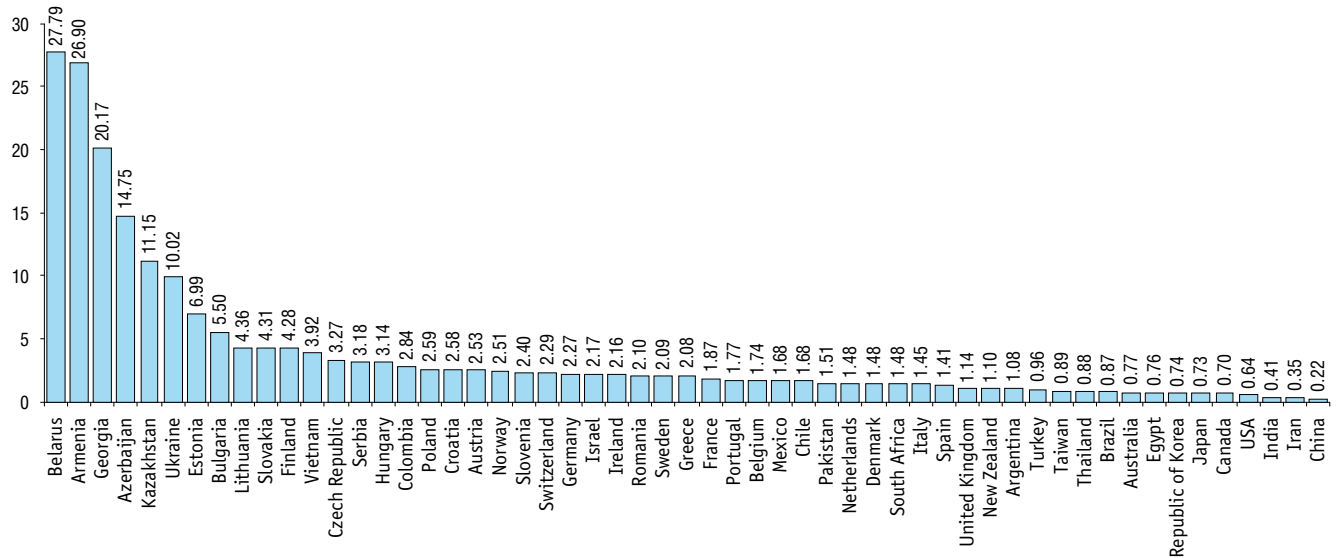
* The number of citations received in 2013 by publications issued within the same period.

8.17. PUBLICATIONS IN CO-AUTHORSHIP WITH FOREIGN RESEARCHERS AS A PERCENTAGE OF TOTAL COUNTRY PUBLICATIONS IN SCIENTIFIC JOURNALS INDEXED IN SCOPUS: 2013*



* According to SCImago Journal & Country Rank.

8.18. PUBLICATIONS IN CO-AUTHORSHIP WITH RUSSIAN RESEARCHERS AS A PERCENTAGE OF TOTAL COUNTRY PUBLICATIONS IN SCIENTIFIC JOURNALS INDEXED IN SCOPUS: 2013*



* The term 'publication' refers to three types of documents: articles, reviews, reports. The diagram shows the countries in which the number of publications co-authored with Russian researchers in 2013 was equal to 100 or more.

8.19. PATENT APPLICATIONS FILED BY RESIDENTS AND NON-RESIDENTS AT NATIONAL PATENT AGENCIES

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Russia	22202	28688	30651	30192	32254	37691	39439	41849	38564	42500	41414	44211	44914
CIS countries													
Armenia	285	127	157	6	208	193	140	230	127	142	140	141	131
Azerbaijan	251	...	264	277	287	259	295	233	281	271	205	144	156
Belarus	1039	1198	1380	1265	1462	1525	1662	1730	1926	1933	1871	1871	1634
Kazakhstan	1373	1515	1798	...	1626	1557	...	173	1827	1964	1732	...	2202
Kyrgyzstan	148	84	180	...	...	...	158	138	...	140	...	111	114
Republic of Moldova	309	250	296	306	388	312	347	295	139	150	108	115	96
Tajikistan	65	52	31	34	36	26	...	...	12	10	5	6	4
Turkmenistan	...	...	...	...	...	...	1	...	1	...	...	...	...
Ukraine	5960	7224	3073	5779	5592	5890	6163	5697	4814	5312	5253	4955	5412
Uzbekistan	1058	968	1102	478	444	509	522	448	412	632	556	510	557
OECD countries													
Australia	14061	22001	21594	22833	23857	26003	26840	26346	23681	24887	25526	26358	29717
Austria	2186	2301	2333	2514	2505	2649	2672	2627	2555	2673	2430	2552	2406
Belgium	1087	820	707	636	622	651	617	708	817	760	763	882	876
Canada	26592	39622	37228	38201	39888	42038	40131	42089	37477	35449	35111	35242	34741
Chile	1706	3120	2405	2867	3007	3215	3806	3952	1717	1076	2792	3019	3072
Czech Republic	3519	4939	3579	1252	830	836	908	854	881	982	880	1071	1081
Denmark	1484	1870	1925	2015	1823	1691	1857	1829	1649	1768	1771	1635	1534
Estonia	79	804	602	124	38	45	63	72	96	97	77	25	42
Finland	3791	2903	2187	2 220	2059	2018	2015	1946	1933	1833	1774	1827	1737

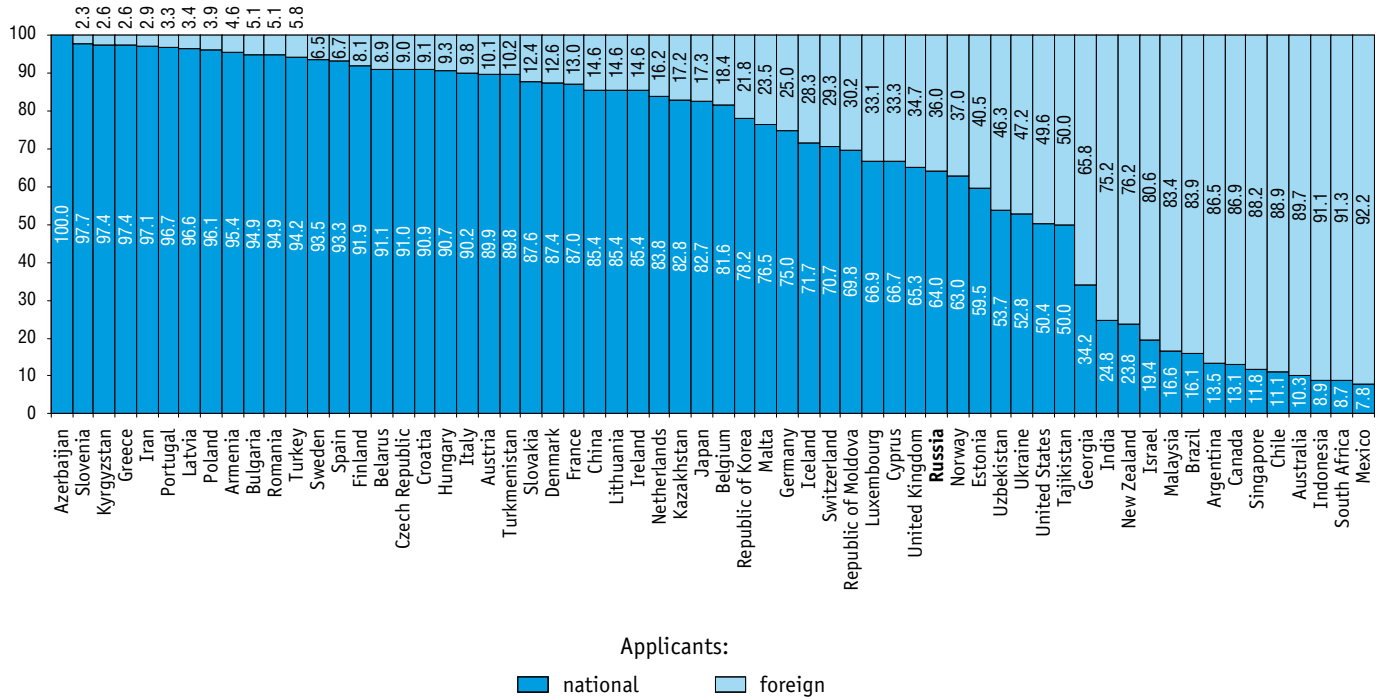
(continued)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
France	15896	17353	16850	17290	17275	17249	17109	16419	15693	16580	16754	16632	16886
Germany	46158	62142	58481	59234	60222	60585	60992	62417	59583	59245	59444	61340	63167
Greece	312	340	420	407	482	562	595	658	720	744	...	656	717
Hungary	2889	4937	4810	2657	1202	924	791	772	787	696	698	758	708
Iceland	68	876	805	529	592	371	114	81	86	76	71	44	46
Ireland	990	1080	939	845	864	935	925	1007	961	792	561	555	390
Israel	4425	6802	5898	6414	6826	7496	8009	7742	6774	7306	6886	6792	6185
Italy	8574	9273	9401	9247	9331	10903	10125	9449	9717	9723	9721	9310	9212
Japan	368831	419543	413093	423081	427078	408674	396291	391002	348596	344598	342610	342796	328436
Luxembourg	104	176	24	41	88	52	40	71	84	100	128	161	169
Mexico	5234	13061	12207	13198	14435	15505	16599	16581	14281	14576	14055	15314	15444
Netherlands	2692	2994	2861	2743	2850	2716	2446	2732	2854	2767	2895	2713	2764
New Zealand	4719	7048	6873	6531	7005	7365	7844	5724	6358	6636	6209	7099	9781
Norway	5408	6700	5861	5490	5986	6076	6656	5430	3604	1813	1776	1564	1749
Poland	3860	7303	6241	7740	6583	2812	2753	2778	3140	3430	4123	4657	4411
Portugal	201	146	165	187	205	220	281	405	617	545	646	647	669
Republic of Korea	78499	102010	118651	140115	160921	166189	172469	170632	163523	170101	178924	188915	204589
Slovakia	1669	2040	1647	453	250	283	345	242	239	282	257	203	210
Slovenia	430	431	370	384	373	299	346	307	385	453	...	...	...
Spain	2600	3194	3180	3184	3353	3427	3532	3884	3803	3779	3626	3475	3244
Sweden	4865	5068	3728	3230	2960	2859	2925	2855	2649	2549	2341	2436	2495
Switzerland	3720	2551	2227	2176	2098	2102	2034	2033	2078	2155	2043	2988	2156
Turkey	1690	3433	837	917	1146	1232	2021	2397	2732	3357	4113	4666	4661
United Kingdom	27521	32747	31624	29954	27988	25745	24999	23379	22465	21929	22259	23235	22938
USA	228142	295895	342441	356943	390733	425966	456154	456321	456106	490226	503582	542815	571612

(continued)

	1995	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU countries which are not OECD members													
Bulgaria	731	940	958	396	313	291	239	271	266	260	283	259	297
Croatia	600	875	1086	1224	1012	436	437	401	318	278	251	...	253
Cyprus	...	70	97	94	64	34	19	21	12	8	8	12	3
Latvia	300	179	115	151	169	151	147	215	243	185	183	205	233
Lithuania	133	127	113	114	115	99	82	105	107	114	108	124	137
Malta	24	116	...	471	...	805	39	48	29	19	15	17	17
Romania	2232	1290	1174	1137	984	876	886	1031	1091	1418	1463	1077	1046
Other countries													
Argentina	4264	6636	4557	4602	5269	5617	5743	5582	4916	4717	...	4813	4772
Brazil	7448	17376	17704	19272	20005	24074	21825	22917	21944	22686	28306	30116	30884
China	18699	51906	105317	130384	173327	210501	245161	289838	314604	391177	526412	652777	825136
Georgia	707	456	403	458	461	535	162	247	468	359	398	372	333
India	6566	8538	12613	17466	24382	28928	35218	36812	34287	39762	42291	43955	43031
Indonesia	2874	3890	3300	3668	4304	4612	...	...	4540	5638	5838	...	7450
Iran	407	616	1642	2782	4494	6527	...	...	...	...	...	...	11643
Malaysia	4052	6227	5062	5442	6286	4800	2372	5303	5737	6383	6452	6940	7205
Singapore	2557	8236	7874	8585	8605	9163	9951	9692	8736	9773	9794	9685	9722
South Africa	6365	3295	6225	6789	7004	7605	8317	7941	6735	6383	7245	7444	7295

8.20. PERCENTAGE DISTRIBUTION OF PATENT APPLICATIONS BY APPLICANT AND COUNTRY: 2013*



* Or the nearest years for which data are available.

8.21. PATENT APPLICATIONS FILED BY RESIDENTS AT NATIONAL AND FOREIGN PATENT AGENCIES

	Number of applications				Number of applications per 1 000 000 population				Number of applications per 1 000 000 economically active population			
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013
Russia	32835	31463	34803	34420	229.8	220.2	243.4	240.0	435.0	415.2	459.9	455.7
CIS countries												
Armenia	192	200	188	179	64.0	66.7	62.7	60.1	128.0	133.3	125.3	119.3
Azerbaijan	456	418	640	481	50.4	45.6	68.8	51.1	101.3	90.5	136.2	100.2
Belarus	2893	2368	2812	2418	304.5	249.3	296.0	255.3	645.0	525.8	624.9	537.3
Kazakhstan	1921	1821	...	2448	117.9	109.7	...	143.7	219.8	205.3	...	266.1
Kyrgyzstan	181	73	132	132	32.9	13.3	23.6	23.2	71.5	28.4	50.8	48.9
Republic of Moldova	231	193	149	146	64.2	53.6	41.4	40.6	189.8	156.5	124.2	121.7
Tajikistan	25	22	21	12	3.3	2.8	2.6	1.5	7.8	6.7	6.0	3.3
Turkmenistan	1	2	2	1	0.2	0.4	0.4	0.2	0.5	0.9	0.9	0.4
Ukraine	3038	3318	3083	3510	66.2	72.6	67.6	77.1	130.4	142.3	133.5	151.9
Uzbekistan	374	304	271	308	13.1	10.4	9.1	10.2	30.7	24.0	20.8	23.2
OECD countries												
Australia	11556	11530	11234	12545	515.3	506.6	494.9	543.1	987.7	968.9	936.2	1028.3
Austria	11062	11599	12088	13392	1318.8	1377.4	1439.0	1575.5	2572.6	2697.4	2747.3	3043.6
Belgium	11804	11718	11719	11805	1084.6	1067.4	1055.8	1054.0	2360.8	2391.4	2391.6	2361.0
Canada	24209	24967	26304	26360	709.4	724.0	753.7	748.9	1301.6	1328.0	1391.7	1372.9
Chile	543	678	761	806	31.6	39.2	43.7	45.8	67.0	80.7	89.5	93.7
Czech Republic	1906	1812	1875	2148	181.2	172.6	178.6	204.6	361.7	344.6	353.8	405.3
Denmark	11233	11812	10666	12281	2025.4	2121.0	1904.6	2193.0	3873.4	4073.1	3677.9	4234.8
Estonia	304	275	293	278	226.8	205.2	225.4	213.8	441.2	394.0	418.6	397.1
Finland	13046	11698	12658	12743	2432.4	2171.4	2344.1	2342.5	4849.8	4327.8	4688.1	4719.6

(continued)

	Number of applications				Number of applications per 1 000 000 population				Number of applications per 1 000 000 economically active population			
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013
France	65623	67107	67188	71285	1013.0	1030.6	1022.6	1080.1	2202.1	2244.4	2232.2	2360.4
Germany	173532	175550	178896	184843	2122.5	2146.6	2184.3	2293.3	4161.4	4160.0	4219.2	4328.9
Greece	1172	480	1096	1084	103.6	42.4	98.7	98.5	234.4	96.0	219.2	216.8
Hungary	1634	1712	1654	1577	163.4	171.7	167.1	159.3	380.0	398.1	375.9	358.4
Iceland	346	325	314	233	1088.0	1018.8	1046.7	776.7	1911.6	1805.6	1570.0	1226.3
Ireland	4102	4185	4214	4410	899.6	914.3	916.1	958.7	1864.5	1902.3	1915.5	2004.5
Israel	10928	10991	12208	12787	1433.8	1415.7	1545.3	1578.6	3415.0	3434.7	3391.1	3455.9
Italy	27910	28300	27547	28988	461.4	466.0	454.6	484.7	1116.4	1127.5	1076.1	1136.8
Japan	468320	474984	486070	473259	3657.5	3715.7	3812.3	3717.7	7053.0	7240.6	7443.6	7214.3
Luxembourg	1890	2347	2399	2670	3724.1	4518.7	4798.0	5340.0	4973.7	6017.9	7996.7	10269.2
Mexico	1631	1918	2142	2145	13.8	16.1	17.7	17.5	32.4	37.8	40.5	39.8
Netherlands	33388	33496	29906	33777	2009.9	2006.6	1780.1	2010.5	3794.1	3806.4	3360.2	3753.0
New Zealand	3223	3059	2856	3461	735.7	692.9	649.1	769.1	1401.3	1274.6	1190.0	1442.1
Norway	5595	5547	5703	5806	1144.4	1119.9	1140.6	1138.4	2151.9	2109.9	2112.2	2150.4
Poland	4061	4900	6023	6049	105.4	127.2	156.4	157.1	224.4	266.3	325.6	327.0
Portugal	1059	1019	1097	1323	99.6	95.7	104.5	126.0	189.1	185.3	199.5	245.0
Republic of Korea	178644	187739	203410	223530	3615.5	3771.4	4068.2	4452.8	7203.4	7479.6	7976.9	8564.4
Slovakia	371	440	365	403	68.3	80.9	67.6	74.6	137.4	163.0	135.2	149.3
Slovenia	1043	663	495	543	509.1	323.0	235.7	258.6	1001.0	650.6	495.0	543.0
Spain	10733	10825	11380	11034	233.0	234.7	246.3	236.3	458.7	462.6	486.3	475.6
Sweden	22443	21987	21161	22684	2393.0	2326.8	2227.5	2362.9	4536.7	4383.4	4149.2	4447.8
Switzerland	39393	38710	39858	45171	5059.4	4919.1	4982.3	5576.7	8200.0	7904.8	8664.8	9610.9
Turkey	4211	5283	5986	5807	57.7	71.4	79.6	77.5	163.9	198.6	220.9	211.2
United Kingdom	50865	50749	50447	51424	817.0	808.9	791.9	802.2	1619.9	1606.0	1581.4	1597.0
USA	432911	440433	460276	501903	1397.5	1411.5	1466.3	1587.8	2789.4	2841.5	2942.9	3200.9

(continued)

	Number of applications				Number of applications per 1 000 000 population				Number of applications per 1 000 000 economically active population			
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013
EU countries which are not OECD members												
Bulgaria	391	395	372	504	52.1	53.4	51.0	69.0	110.9	114.5	109.4	152.7
Croatia	404	366	...	415	91.8	85.1	...	96.5	205.6	191.9	...	218.4
Cyprus	266	352	435	361	241.8	320.0	395.5	328.2	454.7	591.6	725.0	601.7
Latvia	454	325	364	482	206.4	154.8	182.0	241.0	394.4	304.0	330.9	482.0
Lithuania	174	142	198	223	52.7	47.3	66.0	74.3	107.3	94.2	132.0	148.7
Malta	155	276	256	274	372.6	663.5	609.5	647.8	861.1	1533.3	1280.0	1370.0
Romania	1501	1599	1243	1245	73.9	79.2	61.8	62.3	154.7	168.3	129.5	129.7
Other countries												
Argentina	298	339	1048	923	7.4	8.3	25.5	22.2	16.2	18.2	55.4	48.3
Brazil	4212	6363	6603	6850	21.6	32.3	33.2	34.2	41.4	61.7	63.0	64.5
China	308318	436144	560681	734147	230.5	324.5	415.1	540.8	379.5	534.1	711.9	925.4
Georgia	185	158	153	119	41.1	35.1	34.0	26.4	78.5	66.4	63.8	49.6
India	14862	15860	18020	20941	12.3	13.0	14.6	16.7	31.9	33.8	38.2	43.5
Indonesia	580	608	...	755	2.4	2.5	...	3.0	5.1	5.2	...	6.3
Iran	11636	12018	11054	11643	150.3	154.4	140.1	146.4	444.4	451.0	410.0	426.4
Malaysia	1937	1947	1939	2301	68.4	67.6	66.4	77.5	156.6	153.9	152.7	177.0
Singapore	4229	4568	4826	5486	831.4	880.5	910.6	1015.9	1348.5	1411.2	1608.7	1769.7
South Africa	1996	1761	1608	2216	39.8	34.1	30.7	41.8	108.5	94.7	84.2	113.6

8.22. TRIADIC PATENT FAMILIES*

	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Russia	63	73	56	56	50	42	53	47	47	45	45	52	54	48
OECD countries														
Australia	236	381	283	301	270	288	270	240	232	234	227	202	208	197
Austria	223	277	261	236	221	242	262	261	252	254	273	269	270	274
Belgium	375	331	322	300	282	355	329	312	315	325	308	302	306	307
Canada	390	526	503	510	502	562	538	526	522	516	527	517	498	512
Chile	2	2	5	5	3	6	4	4	4	4	8	8	9	7
Czech Republic	3	9	12	15	16	14	15	16	17	18	17	18	19	18
Denmark	189	226	191	188	184	229	250	223	231	250	229	234	244	234
Estonia	0	1	2	0	3	0	3	4	4	4	4	4	4	4
Finland	319	354	314	210	240	269	273	277	281	278	284	291	290	305
France	1976	2158	1988	1849	1792	1880	1875	1829	1831	1860	1854	1822	1861	1827
Germany	4914	5843	5206	4636	4594	4741	4852	4848	4838	4722	4775	4780	4769	4749
Greece	2	6	8	9	11	8	13	12	11	10	10	8	9	9
Hungary	25	29	31	27	31	36	31	30	35	34	35	35	37	37
Iceland	6	11	3	10	4	5	2	3	4	5	5	3	3	4
Ireland	31	32	49	42	48	49	59	55	63	66	67	62	71	67
Israel	161	324	290	245	252	299	358	312	272	278	271	261	265	277
Italy	621	642	659	611	565	604	598	580	558	561	552	552	551	548
Japan	9592	14966	13355	12843	13544	14044	13372	13476	13328	12030	12101	12548	13019	13168
Luxembourg	14	20	26	10	16	17	11	18	13	15	12	12	13	14
Mexico	12	8	12	10	14	12	13	15	11	8	7	8	8	8
Netherlands	769	1028	933	1006	977	889	848	869	816	832	845	763	811	817
New Zealand	21	49	34	56	45	44	40	46	42	42	41	40	37	37
Norway	87	106	80	83	84	72	81	82	80	77	92	84	84	86

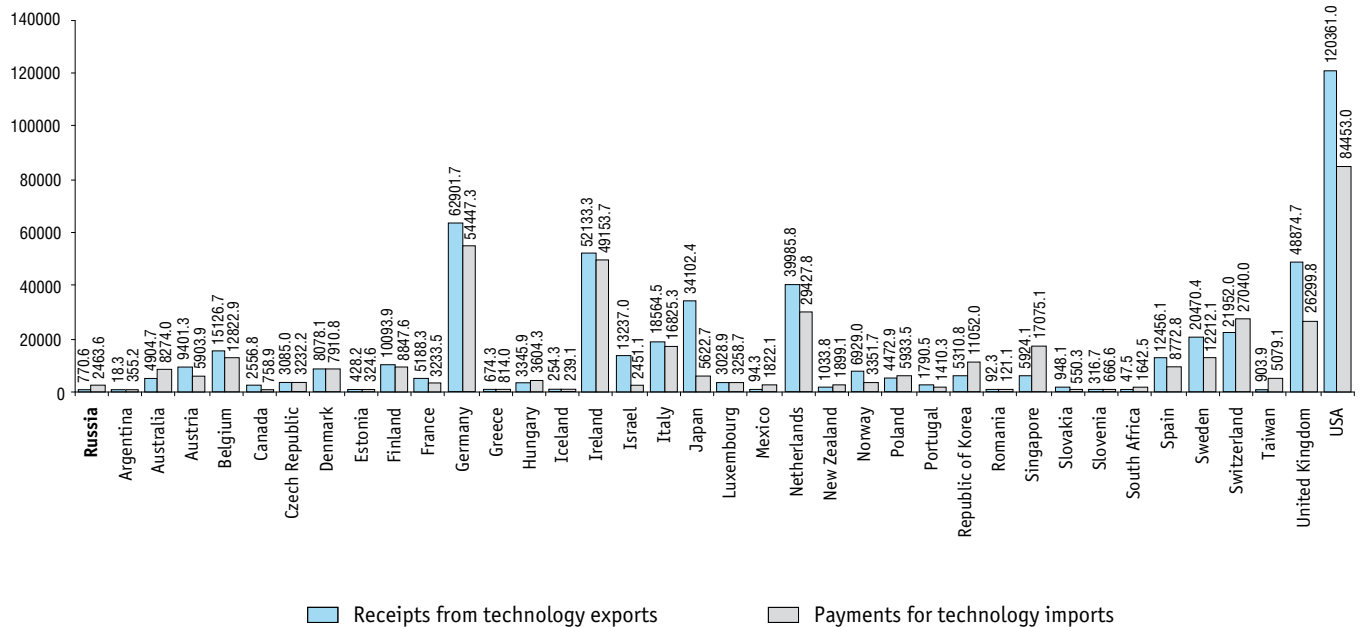
* Patent applications filed simultaneously at the European Patent Office, the US Patent and Trademark Office, and the Japan Patent Office.

(continued)

	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Poland	5	9	12	12	10	11	13	12	18	25	29	33	33	39
Portugal	3	2	6	6	8	7	10	11	19	16	12	11	11	12
Republic of Korea	331	733	891	1192	1496	1764	1644	1538	1661	1482	1610	1621	1699	1913
Slovakia	2	2	3	3	2	1	2	2	2	2	2	2	2	2
Slovenia	7	9	6	12	9	7	9	4	5	4	4	4	4	4
Spain	83	146	154	147	113	140	148	140	143	153	159	151	148	147
Sweden	760	623	566	543	495	476	569	621	645	633	611	636	647	650
Switzerland	771	817	747	692	702	720	715	729	693	692	700	702	704	705
Turkey	2	4	10	8	3	5	11	9	7	8	10	13	13	14
United Kingdom	1586	1644	1492	1429	1437	1434	1438	1422	1367	1355	1361	1352	1348	1340
USA	12365	13888	13116	13454	14733	14067	14204	13513	12920	12881	12538	12229	12489	12722
EU countries which are not OECD members														
Bulgaria	3	1	2	2	5	2	3	2	1	...	...	...	...	...
Croatia	6	6	6	18	8	7	4	6	1	0	2	...	...	...
Cyprus	...	0	5	2	1	1	2	1	2	1	...	...	...	...
Latvia	2	3	1	2	3	1	5	3	1	1	...	...	...	...
Lithuania	...	1	0	3	14	8	1	...	...	...	...	...	...	...
Malta	...	3	3	1	...	...	2	...	...	...	...	...	...	...
Romania	2	0	0	1	1	1	7	1	4	3	2	3	4	4
Other countries														
Argentina	6	7	6	4	6	5	7	6	8	6	6	5	5	5
Brazil	20	29	47	32	26	31	24	28	11	9	0	0	...	...
China	21	71	100	161	214	227	305	318	399	450	675	702	919	998
India	8	48	80	131	105	102	91	89	57	60	29	12	...	...
Singapore	21	70	87	91	71	100	91	90	80	82	81	81	76	83
South Africa	25	37	16	15	33	22	25	26	23	27	24	24	24	26

8.23. RECEIPTS FROM TECHNOLOGY EXPORTS AND PAYMENTS FOR TECHNOLOGY IMPORTS: 2013*

(million US dollars)



* Or the nearest years for which data are available.

TECHNICAL NOTES

Advanced manufacturing technologies – technologies and technological processes involving machines, devices, equipment and instruments based on microelectronics or computer-controlled, used in designing, manufacturing or processing of a product.

Applied research is the original investigation that acquires new knowledge in order to solve a particular problem. Applied research is undertaken to determine possible uses for the findings of basic research and aids in discovering new methods or ways of achieving specific and predetermined objectives.

Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. It results in hypotheses, theories, methods, etc. Basic research can additionally provide recommendations for applied research to expose the opportunities for the practical application of the obtained results, as well as result in scientific publications, etc.

Bibliometric indicators are calculated on the basis of the Web of Science and Scopus databases in regard to publication activity indicators, and on the basis of Essential Science Indicators (ESI, Thomson Reuters) and SCImago Journal & Country Rank (SJR, Scimago Lab) in regard to citation indicators. Publications considered, unless otherwise specified, include three types of documents indexed by the Web of Science and Scopus databases: scientific articles, reviews, and proceedings / conference papers. A publication is associated with a country if the latter is listed in the work address of the author or one of the co-authors. The data presented in this data book reflect the state of the databases as of December 22, 2014.

Competitive research funding (programme financing) – funds received by the organisation which took the first place according to the decision of the competition commission made on the basis of summarizing the results of the competition of scientific, technical programs, innovation and other projects related to the implementation of scientific research and development, on the basis of the best conditions for the implementation of the competitive project presented by the organisation in comparison with other participants.

Development is a systematic work drawing on existing knowledge gained from research and/or practical experience and aimed at creating new materials, products, processes, devices, services, systems or methods. This work can also imply a significant improvement of existing objects.

Doctoral courses are a form of training for highly qualified R&D and teaching personnel that may lead to a Doctor of Sciences degree. Persons having a Candidate of Sciences degree can be admitted to doctoral courses. Preparing the doctoral thesis is carried out in educational institutions of higher education, additional vocational education and research organisations. The doctoral student prepares their thesis in the chosen academic field in accordance with the Nomenclature of scientific professions approved by the Ministry of Education and Science of the Russian Federation.

The duration of training in doctoral courses should not exceed three years.

Enterprises engaged in technological innovation are those involved in development and introduction of technologically new or improved products, services, technological processes or techniques of service production (transfer), and other types of innovative activities.

Expenditure on innovation is the actual expenditure related to implementation of various types of innovative activity performed within an enterprise (a sector, region, country). Innovation expenditure comprises current and capital expenditure. Innovation statistics covers the expenditure of technological, organisational, and marketing innovations.

Federal budget appropriations on civil S&T – federal budget funds allocated for civil basic and applied research. In accordance with the new budget classification adopted in Russia since January 1, 2005, appropriations earlier included in the subsections 0601 'Basic Research' and 0602 'Development of Perspective Technologies and Priority Objectives of S&T Progress' of the section 06 'Basic Research and Promotion of Science and Technology Progress' of the federal budget are attributed to basic and applied research, respectively.

Fixed (capital) assets of research and development include:

- buildings and constructions;
- machinery and equipment, including experimental devices, scientific instruments, automation and computing tools, etc.;
- means of transport;
- tools, equipment and other fixed assets on the balance of R&D institutions and their experimental bases, used in their main activities.

Grants are monetary and other assets that are provided free of charge and irrevocably by persons and legal entities, including foreign citizens and foreign legal entities and international organisations which have the right to provide grants to the Russian Federation in accordance with the procedures laid down by the Government of the Russian Federation, to realise specific S&T programmes and projects, innovation projects, to conduct specific research on the conditions attached by grant-makers

(Federal law of August 26, 1996 № 127-FZ 'On science and state science and technology policy' (as amended)).

Gross domestic expenditure on R&D – actual expenditure on research and development carried out within a country (including those financed from abroad and excluding money received abroad) expressed in a monetary form. Its estimation is based on statistical accounting of expenditure on R&D performed by organisations during the reference year regardless of the source of funds.

Gross domestic expenditure on R&D comprises:

- **current expenditure** – salaries, social security payments, expenditure on acquisition of equipment due to prime cost of projects, other material costs (acquired raw or fabricated materials, add-in products, half-finished products, fuel, energy, production works and services, etc.), and other current costs;
- **capital expenditure** includes expenditure on construction of buildings, acquisition of land, buildings, equipment included in fixed assets, etc.

Gross domestic expenditure on R&D is estimated at current and constant prices calculated using the GDP deflator.

Industrial design is an art and design solution for industrial products or handicraft production, which determines its appearance.

Innovative activity of an enterprise characterises the degree of involvement of this enterprise in innovation in general, or in specific innovative activities, within a certain period of time. The level of innovative activity is generally defined as the ratio of enterprises engaged in technological, organisational, and marketing innovations to the total enterprises surveyed in a country, sector, region, etc. within a specific period of time.

Innovative activities are all types of economic activities related to the transformation of ideas (usually the result of research and de-

velopment or other scientific achievements) into technologically new or significantly improved goods and services introduced to the market, new or significantly improved technological processes or methods of service production (transfer) implemented in practice. Innovative activities incorporate a complex of scientific, technological, organisational, financial and commercial actions that, taken together, lead to innovation.

Innovative goods and services are products (goods and services) that have undergone technological modification in the last three years. By degree of novelty innovative goods and services are subdivided into newly introduced (or significantly technologically modified) and improved products.

Invention is a technical solution in any field related to a product (e.g., to a device, substance, microorganism strain, cell culture of plants and animals) or means (process of affecting a material object using material means). The invention must possess novelty, inventive step, be industrially applicable.

License is a legal agreement between an owner (licenser) and a grantee (licensee) on the transmission for a contingent consideration of exclusive rights to the use of industrial property or know-how, occurring under certain conditions and for a certain period of time. A patent license agreement provides the right to use patents, and defines the volume of transferred rights, the validity period, the territory coverage, and the type of payment.

Marketing innovation includes newly implemented or significantly improved marketing methods that incorporate major changes in product package and design; innovative sales, presentation and promotion of goods and services; new pricing strategies. Marketing innovations are aimed at better addressing customer needs, the expansion of the range

of goods' and services' consumers, and developing new markets with the objective of increasing sales.

Organisational innovation is the implementation of a new organisational method in a firm's business practices, workplace design or external relations. Organisational innovations are aimed at increasing effectiveness of an enterprise performance by reducing administrative and transaction costs, improving workplace design and working time arrangements, and thereby increasing labour productivity, gaining access to market assets, and reducing supply costs.

Patent for invention is a document granted by the government to an inventor that entitles priority, authorship and exclusive right to use the invention for an agreed period of operation.

Postgraduate courses are one of the main training programmes for teaching and R&D staff in the system of higher education that may lead to a Candidate of Sciences degree. In addition, training of highly qualified personnel is carried out by postgraduate military courses, medical residency programmes, programmes of assistance internship. Persons having higher education (specialist' or master') degree are admitted to the programmes of postgraduate (military) courses, medical residency programmes and programmes of assistance internship. Training of the teaching and R&D staff is carried out in training areas and disciplines according to the list approved by the Ministry of Education and Science of the Russian Federation. Postgraduate training is carried out in full-time, part-time and distance forms. The duration of full-time study should not exceed three years, of distance study – four years.

Information about R&D staff training in postgraduate courses in 2013 and previous years presented in the data book was collected and processed without taking into account the provisions of the Federal Law of December 29, 2012 №273-FZ "On Education in the Russian Federa-

tion". The concept of postgraduate courses as used in this data book also includes postgraduate military courses, medical residency programmes and programmes of assistance internship.

R&D personnel is a population of persons whose systematic creative activities are aimed at the advancement of scientific knowledge or search for new areas of its application, as well as direct services related to the performance of R&D.

R&D personnel is subdivided into the following categories:

- **researchers** are professionals engaged in R&D and immediately performing the creation of new knowledge, products, processes, methods, and systems, as well as in the management of these activities. Researchers usually have higher education (university or equivalent) degrees;

- **technicians** take part in R&D performing technical functions (operation and maintenance of scientific instruments, laboratory equipment, computer equipment, preparing materials, drawings, conducting experiments, tests and analyses, and so on), as a rule, under the supervision of researchers. Technicians generally have secondary professional education and (or) the necessary professional experience and knowledge;

- **supporting staff** includes staff members performing supporting functions connected with R&D: employees of planning and finance units, patent services, S&T information units, S&T libraries; workers engaged in assembling, adjusting, maintaining and repairing scientific equipment and instruments; workers of pilot (experimental) production units; laboratory assistants without higher or secondary professional education;

- **other auxiliary personnel** includes staff members performing housekeeping activities and general functions connected with running an organisation as a whole (employees of accounting departments, HR departments, units for material and technical supplies, secretarial and clerical staff, etc.).

Research and development (R&D) – the term comprises creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, nature and society, as well as search for new applications of this knowledge.

Sectors of R&D performance:

- **government sector** includes institutions subordinated to government ministries and agencies responsible for state administration and satisfaction of public needs in general, as well as non-profit institutions completely or mainly financed and controlled by the government;

- **business enterprise sector** includes all organisations and enterprises whose main activity is connected with the production of goods or services for sale, including those owned by the state, as well as private non-profit institutions serving the abovementioned organisations;

- **higher education sector** includes universities and other higher education institutions irrespective of financing sources and legal status, as well as research institutes, experimental stations, and clinics directly controlled by higher education institutions or associated with them;

- **private non-profit sector** consists of private institutions that are not aiming to gain profit (professional societies, voluntary associations, etc.) and private individual organisations.

Sources of R&D funding – primary sources of financing R&D. They are determined based on the fact of the direct transfer of funds from the customer institution to the performer institution.

As a whole, R&D funds of the reporting institution are divided into those which can be attributed as their own and those that are received from other external institutions.

The sources of R&D funding include:

- government (including the federal budget, regional and local (municipal) budgets);

- general university funds;
- non-budgetary funds (Russian Foundation for Technological Development, regional development funds, sectoral and intersectoral funds for research and experimental development, regional ecological funds, etc.);
- funds from abroad;
- government sector institutions' funds;
- business enterprise sector funds;
- higher education sector funds;
- private non-profit sector funds;
- own funds of institutions.

Scientific specialisation index is calculated as the ratio of the share of the relevant field of science in the sum of scientific publications by authors from a given country in scientific journals indexed in Web of Science and Scopus to its share in the total number of publications contained therein. If the index exceeds 1.0, the area of science is one of the areas of this country's specialisation.

Technological innovation is the final result of innovative activities, embodied in a technologically new or improved good or service introduced to the market, or a technologically new or improved process or technique of service production (transfer) used in practice. An accomplished innovation is one that is introduced to the market or implemented into the production process.

Technology balance of payments registers the volume of commercial transactions related to international technology and other intangible assets transfers (exports and imports).

Trade in technology with foreign countries comprises all contracts on exports and imports of technologies and engineering services, including contracts between joint ventures and foreign enterprises registered in Russia, as well as their branches (offices) registered in Russia and their foreign mother companies.

Utility model is a technical solution related to a device. A utility model must possess novelty and be industrially applicable.

SCIENCE AND TECHNOLOGY INDICATORS IN THE RUSSIAN FEDERATION

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