Ministry of Education and Science
of the Russian Federation

Federal State
Statistics Service

HIGHER SCHOOL OF ECONOMICS
NATIONAL RESEARCH UNIVERSITY

Science and Technology. Innovation. Information Society

Pocket Data Book

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Pocket Data Book

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The pocket data book contains main indicators characterizing S&T, innovation and Information Society in the Russian Federation.

The data book includes information of the Federal State Statistics Service, Federal Service for Intellectual Property, Organisation for Economic Co-operation and Development (OECD), Eurostat, UNESCO, World Intellectual Property Organisation, national statistical services of foreign countries, and results of own methodological and analytical studies of the HSE Institute for Statistical Studies and Economics of Knowledge.

In some cases, the presented data specify those published earlier.

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Symbols used in tables are:
... data not available
and not included in the totals,
– data not applicable.
In some tables, details may not add to the totals
because of rounding.

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1. Institutions

1.1. R&D institutions by type

	1991	2000	2010	2012	2013
Total	**4564**	**4099**	**3492**	**3566**	**3605**
Research institutes	1831	2686	1840	1744	1719
Design organisations	930	318	362	338	331
Construction project and exploration organisations	559	85	36	33	33
Experimental enterprises	15	33	47	60	53
Higher education institutions	450	390	517	560	671
Industrial enterprises	400	284	238	274	266
Others	379	303	452	557	532

1.2. R&D institutions by sector of performance

	1991	2000	2010	2012	2013
Total	**4564**	**4099**	**3492**	**3566**	**3605**
Sectors of performance:					
government	992	1247	1400	1467	1497
business enterprise	3009	2278	1405	1362	1269
higher education	537	526	617	660	760
private non-profit	26	48	70	77	79

1.3. Number of R&D institutions in academies of sciences

	1991	2000	2010	2012	2013
Total	**594**	**831**	**857**	**865**	**872**
Russian Academy of Sciences	321	454	472	484	514
Russian Academy of Agricultural Sciences	213	291	294	291	272
Russian Academy of Medical Sciences	52	62	64	58	53
Russian Academy of Architecture and Construction Sciences	–	5	5	7	7
Russian Academy of Education	7	17	20	23	24
Russian Academy of Arts	1	2	2	2	...[1)]

[1)] The data are not published in order to ensure the confidentiality of the data 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. R&D Personnel

2.1. R&D personnel

(headcount)

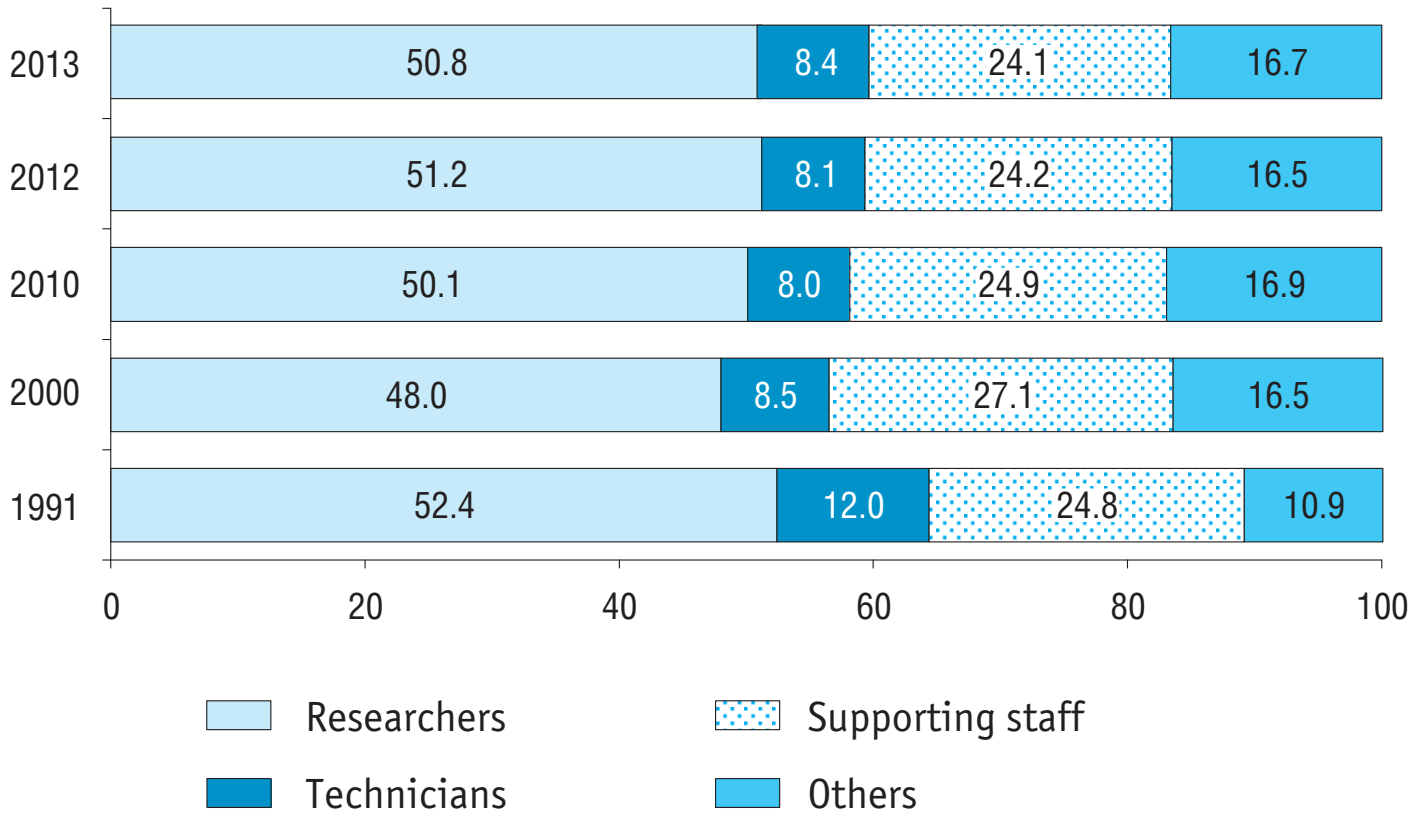
	1991	2000	2010	2012	2013
Total	**1677784**	**887729**	**736540**	**726318**	**727029**
Research institutes	970565	718434	435304	430677	434243
Design organisations	287504	56488	157146	138295	137098
Construction project and exploration organisations	149833	6811	6324	6772	4907
Experimental enterprises	19495	6145	1558	2330	2384
Higher education institutions	90550	31110	46776	53586	53961
Industrial enterprises	118414	54721	51807	52071	52232
Others	41423	14020	37625	42587	42204

2.2. R&D personnel by occupation

(headcount)

	1991	2000	2010	2012	2013
Total	**1677784**	**887729**	**736540**	**726318**	**727029**
Researchers	878482	425954	368915	372620	369015
Technicians	200606	75184	59276	58905	61401
Supporting staff	416590	240506	183713	175790	175365
Others	182106	146085	124636	119003	121248

2.3. Percentage distribution of R&D personnel by occupation



2.4. R&D personnel by sector of performance

(headcount)

	1991	2000	2010	2012	2013
Total	**1677784**	**887729**	**736540**	**726318**	**727029**
Sectors of performance:					
government	294500	255850	259007	271579	262000
business enterprise	1269200	590646	423112	394182	405268
higher education	112700	40787	53290	59356	59116
private non-profit	1400	446	1131	1201	645

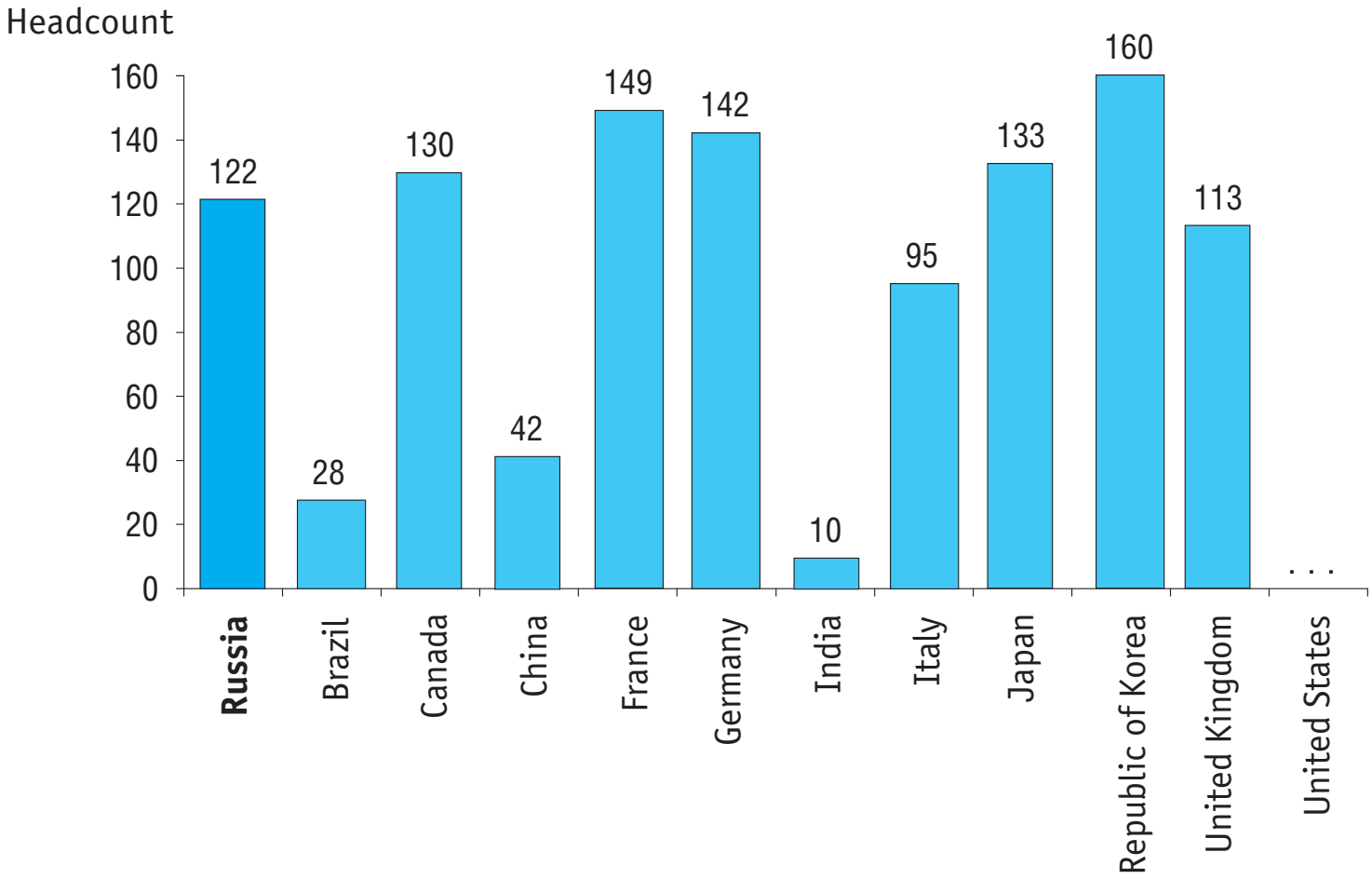
2.5. R&D personnel by country

(thousand person-years; in full-time equivalent)

	1994	2000	2013*
Russia	1264.1	1007.3	826.7
Brazil	…	133.0	266.7
Canada	143.6	167.9	229.0
China	783.2	922.1	3246.8
France	315.2	327.5	402.3
Germany	…	484.7	590.5
India	…	318.4	441.1
Italy	143.8	150.1	233.9
Japan	945.8	896.8	851.1
Republic of Korea	…	138.1	396.0
United Kingdom	267.8	288.6	358.0
United States	…	…	…

* Or nearest years for which data is available.

2.6. R&D personnel per 10 000 employment by country: 2013*



* Or nearest years for which data is available. Calculated by employment in full-time equivalent.

2.7. Researchers by sector of performance

(headcount)

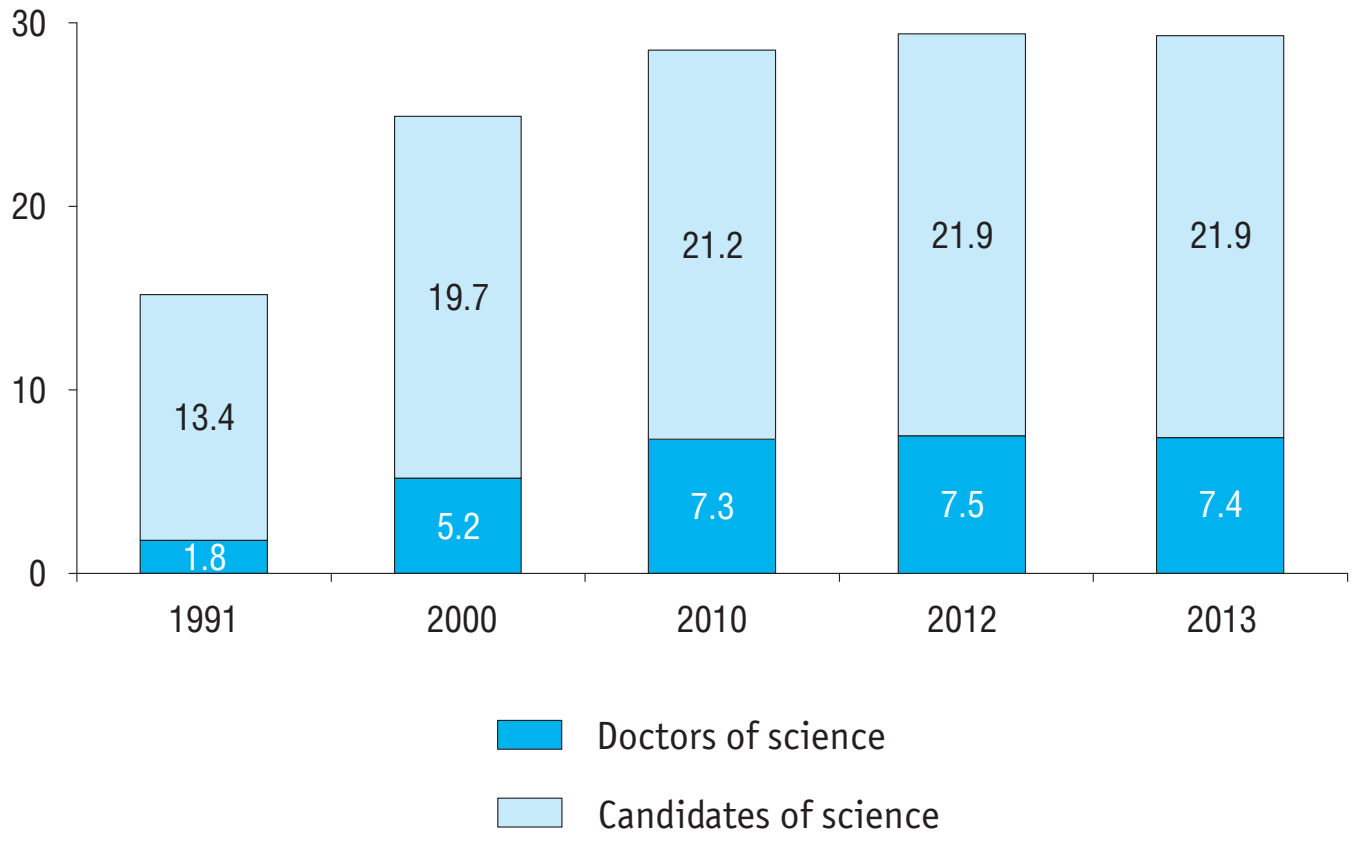
	1991	2000	2010	2012	2013
Total	**878482**	**425954**	**368915**	**372620**	**369015**
Sectors of performance:					
government	166100	129725	131734	136521	132204
business enterprise	637200	267640	197785	192285	193736
higher education	74300	28325	38640	43024	42605
private non-profit	900	264	756	790	470

2.8. Researchers with scientific degrees

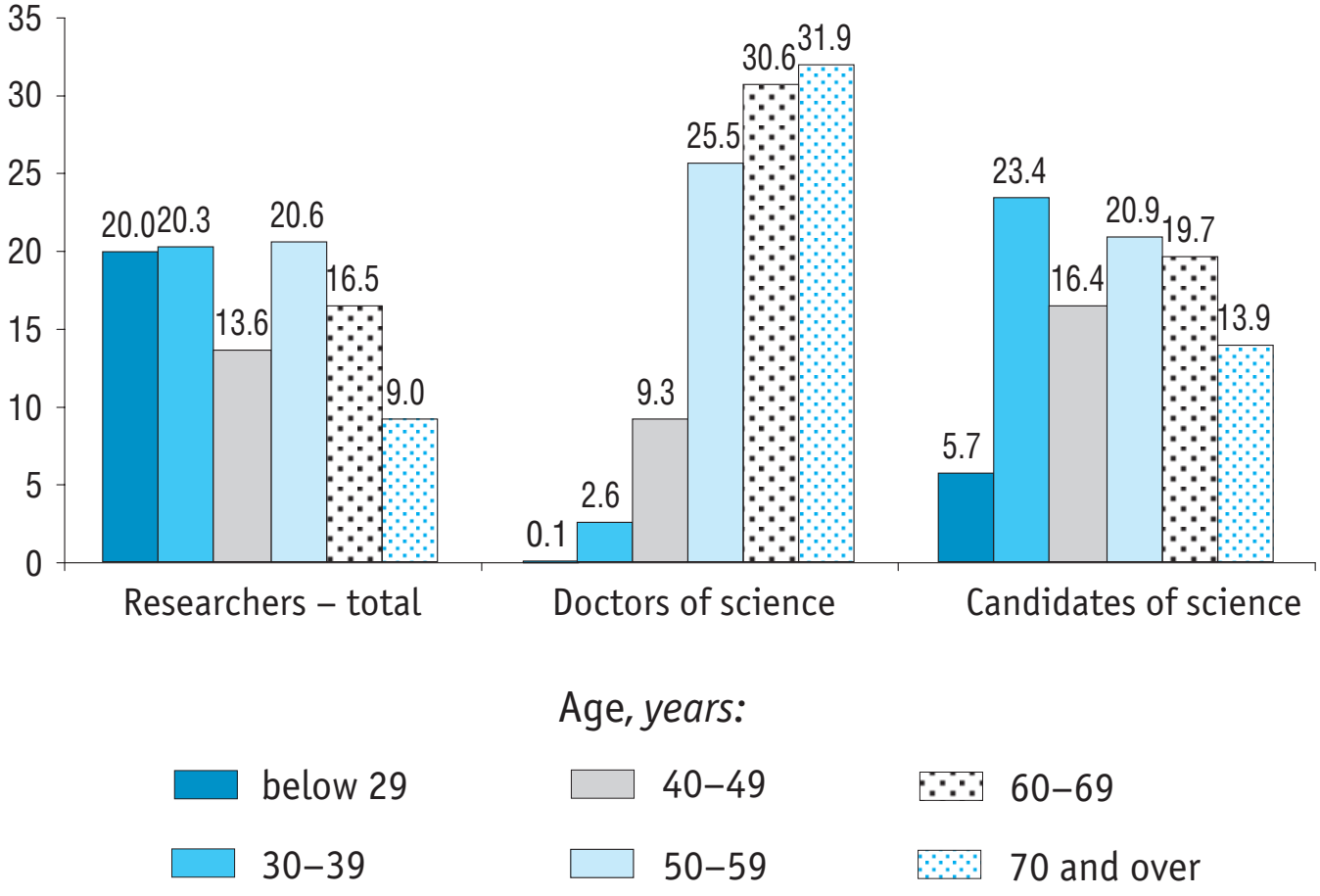
(headcount)

	1991	2000	2010	2012	2013
Researchers with scientific degrees	**134176**	**105911**	**105114**	**109330**	**108248**
Doctors of science	16165	21949	26789	27784	27485
Candidates of science	118011	83962	78325	81546	80763

2.9. Researchers with scientific degrees as a per cent of the total number of researchers



2.10. Percentage distribution of researchers by age: 2013



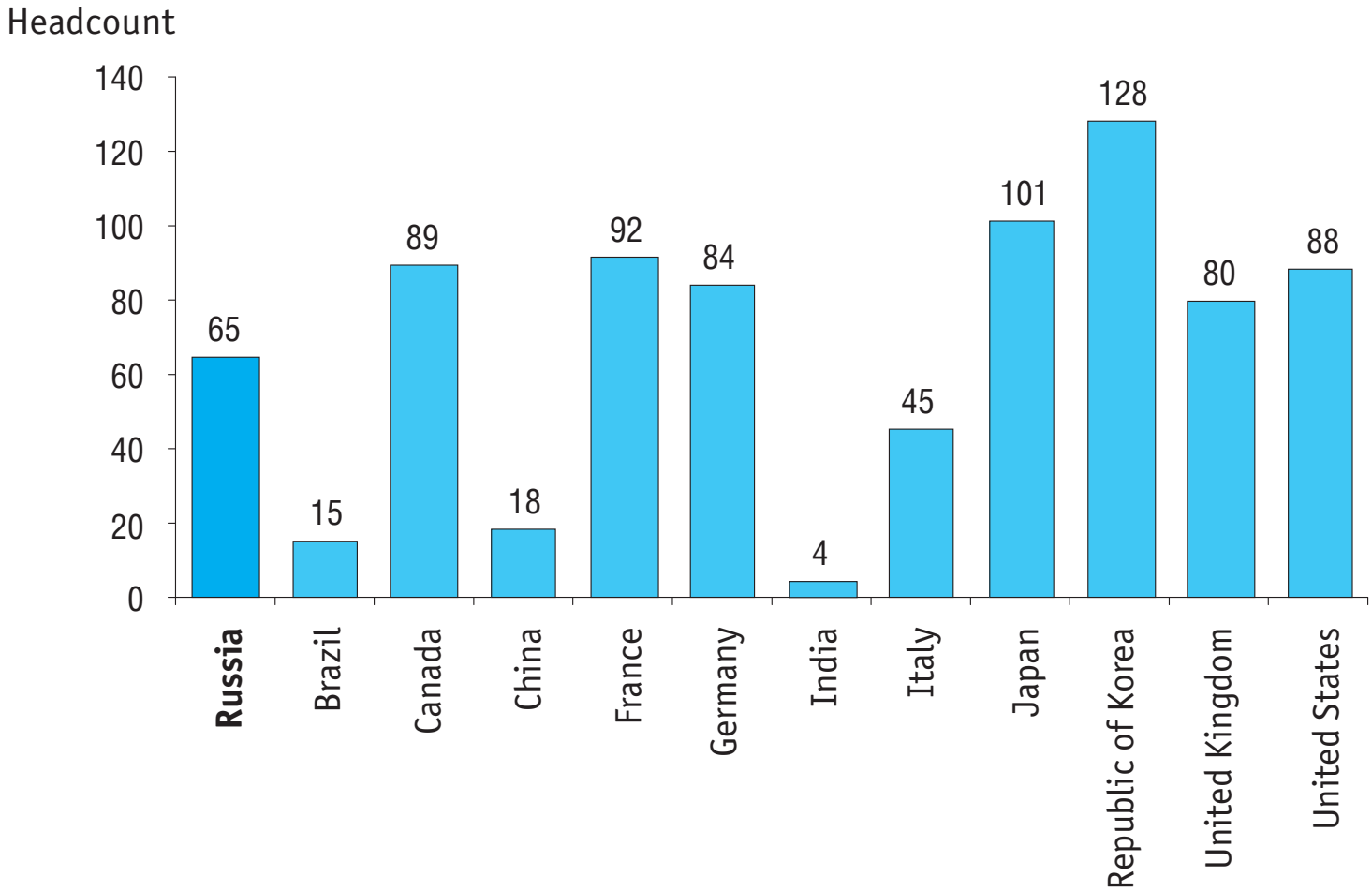
2.11. Researchers by country

(thousand person-years; in full-time equivalent)

	1994	2000	2013*
Russia	621.8	506.4	440.6
Brazil	…	73.9	138.7
Canada	85.9	107.9	157.4
China	552.0	695.1	1404.0
France	149.2	172.1	249.1
Germany	…	257.9	348.4
India	…	115.9	192.8
Italy	75.7	66.1	110.8
Japan	658.9	647.6	646.3
Republic of Korea	…	108.4	315.6
United Kingdom	134.0	170.6	252.7
United States	773.1	983.2	1252.9

* Or nearest years for which data is available.

2.12. Researchers per 10 000 employment by country: 2013*



* Or nearest years for which data is available. Calculated by employment in full-time equivalent.

2.13. R&D personnel in state academies of sciences by occupation: 2013

(headcount)

	Total	Researchers	Technicians	Supporting and other staff
Total	**132383**	**71502**	**14351**	**46530**
Russian Academy of Sciences	97574	53355	10788	33431
Russian Academy of Agricultural Sciences	23242	10884	2615	9743
Russian Academy of Medical Sciences	9380	5738	886	2756
Russian Academy of Architecture and Construction Sciences	520	382	33	105
Russian Academy of Education	1352	982	26	344
Russian Academy of Arts	…[1)]	…[1)]	…[1)]	…[1)]

[1)] The data are not published in order to ensure the confidentiality of the data 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).

2.14. Flows of R&D personnel

(headcount)

	Inflow – total	Of which		Outflow – total	Of which	
		graduates from higher education institutions	from other research institutes		at own initiative	due to staff reduction
1995	108335	6498	23402	226585	141776	29747
2001	132757	14122	21549	137932	93587	3542
2005	109973	13495	15618	122773	81623	6598
2009	93526	13235	13529	97071	58295	5776
2011	94939	13725	11881	100849	62848	2973
2013	94559	11075	13210	93112	59214	2015

3. R&D Funding

3.1. Gross domestic expenditure on R&D

(thousand roubles)

	2000	2008	2012	2013
Gross domestic expenditure on R&D:				
at current prices	76697100.5	431073185.2	699869784.8	749797638.8
at constant 1989 prices	3321.2	5490.8	6142.5	6214.1

3.2. Gross domestic expenditure on R&D by country

(million current PPP $)

	1991	2000	2013*
Russia	19991.3	10726.9	38829.5
Brazil	…	12505.2	27430.0
Canada	8640.9	16703.7	24801.1
China	9048.9	32658.3	293549.5
France	24293.9	33000.7	55351.9
Germany	39430.6	52411.0	102238.4
India	…	12046.4	36195.5
Italy	12450.6	15266.7	26320.5
Japan	73384.1	98749.8	151727.9
Republic of Korea	7147.4	18574.2	65394.5
United Kingdom	18812.0	27891.8	39109.8
United States	161387.8	269513.0	453544.0

* Or nearest years for which data is available.

3.3. Gross domestic expenditure on R&D as a per cent of GDP by country

	1991	2000	2013*
Russia	1.43	1.05	1.12
Brazil	…	1.02	1.21
Canada	1.55	1.87	1.69
China	0.73	0.90	1.98
France	2.32	2.15	2.29
Germany	2.47	2.47	2.98
India	…	0.74	0.81
Italy	1.19	1.04	1.27
Japan	2.89	3.00	3.35
Republic of Korea	1.80	2.30	4.36
United Kingdom	2.01	1.79	1.73
United States	2.61	2.62	2.79

* Or nearest years for which data is available.

3.4. Federal budget appropriations on civil-purpose science and technology

	1998	2000	2012*	2013*	2014**	2015***
Federal budget appropriations on civil-purpose science and technology, *million roubles*	**6239.4**	**17091.7**	**355921.1**	**425301.7**	**365908.6**	**389755.4**
Basic research	2829.3	7866.2	86623.2	112230.9	114505.0	127740.5
Applied research	3410.1	9225.5	269297.9	313070.8	251403.7	262014.8
As a per cent:						
of GDP	0.24	0.23	0.57	0.64	…	…
of total federal budget appropriations	1.32	1.66	2.76	3.19	3.14	3.16

* The source of the data for the years 2012 and 2013 are reports on the execution of the consolidated budget of the Russian Federation and budgets of state extra-budgetary funds (according to the Russian Federal Treasury).

** In accordance with the Federal Law "On the Federal Budget for 2014 and the planning period of 2015 and 2016" (as amended).

*** In accordance with the Federal Law "On the Federal Budget for 2015 and the planning period of 2016 and 2017".

3.5. Government budget appropriations on R&D by country

(current PPP $)

	1991	2000	2013*
Russia**	25840.0	4784.6	34266.9
Brazil***	…	6761.5	14440.1
Canada	3705.1	4578.2	7736.9
China***	…	10907.9	63406.7
France	13872.8	14757.5	17817.9
Germany	15687.1	16828.4	32146.9
India	…	…	…
Italy	7598.2	9381.2	11707.5
Japan	10778.0	21191.6	34956.0
Republic of Korea	...	5029.0	15265.4
United Kingdom	7795.5	10371.3	12982.0
United States	65897.0	83612.5	133515.0

* Or nearest years for which data is available.

** Federal budget appropriations on science and technology.

*** Gross domestic expenditure on R&D financed by the government.

3.6. Gross domestic expenditure on R&D by source of funds

(million roubles; 1994 – billion roubles)

	1994	2000	2012	2013
Gross domestic expenditure on R&D	**5146.1**	**76697.1**	**699869.8**	**749797.6**
Government*	3205.6	42035.7	474789.8	507197.6
Business enterprise sector	1814.3	25208.4	190545.9	211136.0
Higher education sector	19.8	213.0	5905.5	7820.7
Private non-profit sector	5.6	67.6	877.9	896.4
Funds from abroad	100.8	9172.4	27750.7	22747.0

* Including federal budget appropriations, general university funds and government sector institutions' funds (e.g. own funds of R&D-performing institutions).

3.7. Percentage distribution of gross domestic expenditure on R&D by source of funds and country: 2013*

	Gross domestic expenditure on R&D	Government	Business enterprise sector	Funds from abroad	Other funds from national sources
Russia	100	67.6**	28.2	3.0	1.2
Brazil	100	52.6	45.2	...	2.1
Canada	100	34.5	48.4	5.8	11.3
China	100	21.6	74.0	1.0	…
France	100	35.4	55.0	7.7	1.9
Germany	100	29.8	65.6	4.2	0.3
India	100	…	…	…	…
Italy	100	41.9	45.1	9.1	3.9
Japan	100	16.8	76.1	0.4	6.6
Republic of Korea	100	23.8	74.7	0.3	1.1
United Kingdom	100	28.9	45.6	19.7	5.7
United States	100	30.8	59.1	3.8	6.3

* Or nearest years for which data is available.

** Including federal budget appropriations, general university funds and government sector institutions' funds (e.g. own funds of R&D-performing institutions).

3.8. Percentage distribution of gross domestic expenditure on R&D by sector of performance and country: 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
Brazil	100	…	…	…	…
Canada	100	9.0	52.3	38.3	0.4
China	100	16.3	76.2	7.6	...
France	100	13.6	64.6	20.6	1.2
Germany	100	14.3	67.8	18.0	...
India	100	60.5	35.5	4.1	...
Italy	100	13.7	54.5	28.6	3.1
Japan	100	8.6	76.6	13.4	1.4
Republic of Korea	100	11.3	77.9	9.5	1.3
United Kingdom	100	8.2	63.4	26.5	1.8
United States	100	12.3	69.8	13.8	4.0

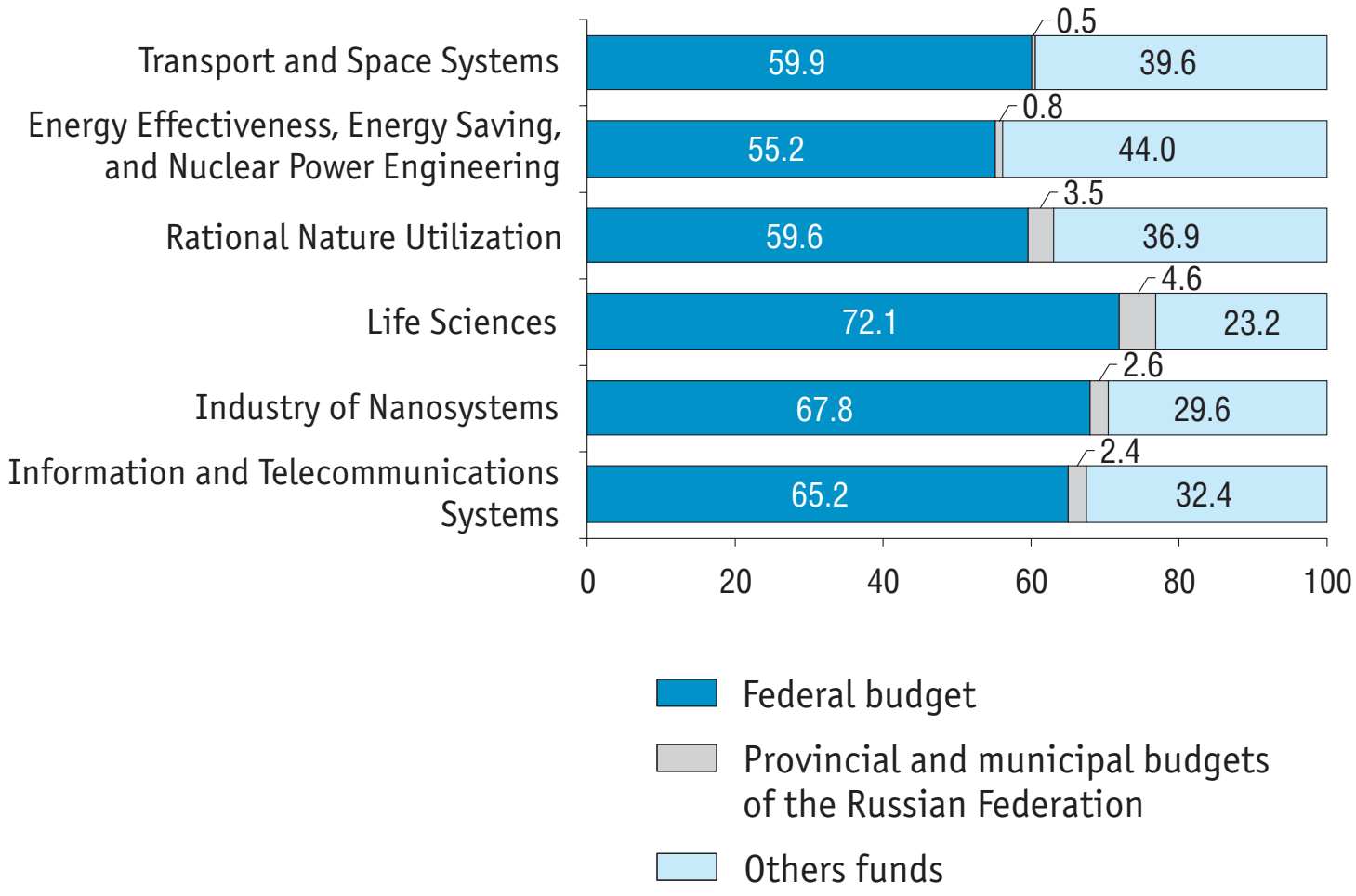
* Or nearest years for which data is available.

3.9. Gross domestic expenditure on R&D by priority S&T areas: 2013

(million roubles)

	Total	Of which funding from the federal budget
Gross domestic expenditure on R&D by priority S&T areas	**491274.7**	**301087.4**
Information and Telecommunications Systems	60031.7	39155.2
Industry of Nanosystems	18708.2	12689.4
Life Sciences	29366.1	21184.8
Rational Nature Utilization	33309.2	19848.7
Energy Effectiveness, Energy Saving, and Nuclear Power Engineering	76417.1	42203.5
Transport and Space Systems	185397.6	111139.3

3.10. Percentage distribution of gross domestic expenditure on R&D by priority S&T areas and source of funds: 2013



3.11. Grants and competitive R&D financing

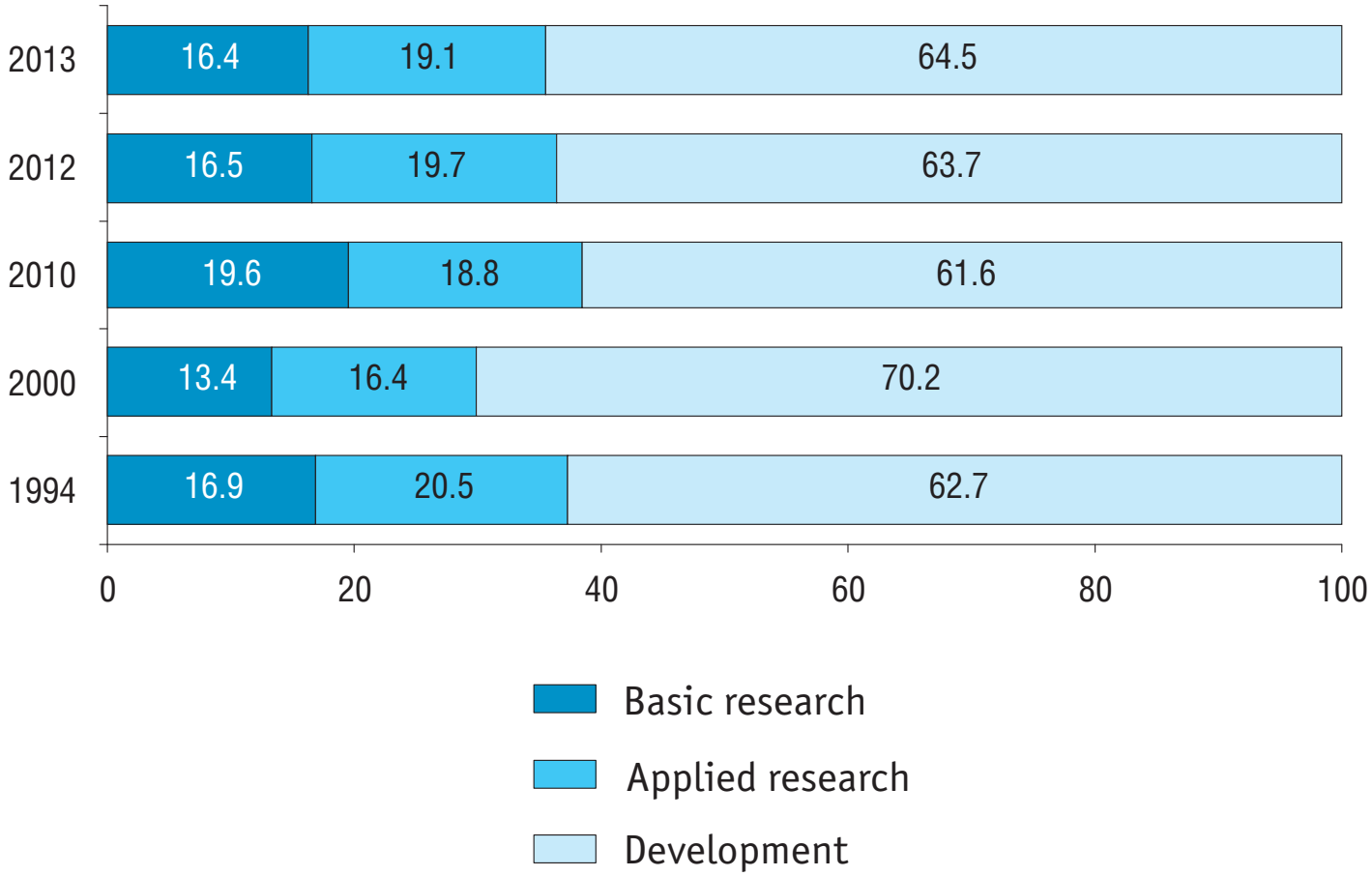
	Grants (non-repayable subsidies)	Competitive (programme) financing
Total, *million roubles*		
2010	7229.2	49583.9
2012	19758.1	100108.2
2013	32617.9	99182.2
As a per cent of gross domestic expenditure on R&D		
2010	1.4	9.5
2012	2.8	14.3
2013	4.4	13.2

3.12. Intramural current expenditure on R&D by type of activity

(million roubles; 1994 – billion roubles)

	1994	2000	2012	2013
Intramural current expenditure on R&D	**4996.9**	**73873.3**	**655061.7**	**699948.9**
Basic research	842.0	9875.7	108160.9	114829.1
Applied research	1021.9	12117.5	129304.4	133788.0
Development	3133.0	51880.2	417596.4	451331.8

3.13. Percentage distribution of intramural current expenditure on R&D by type of activity



3.14. Gross domestic expenditure on R&D in state academies of sciences

(million roubles; 1994 – billion roubles)

	1994	2000	2012	2013
Total	**743.4**	**9091.9**	**91204.4**	**96334.0**
Russian Academy of Sciences	552.3	7449.3	73456.2	77899.8
Russian Academy of Agricultural Sciences	126.4	1065.9	9739.6	10042.2
Russian Academy of Medical Sciences	58.1	506.5	6506.6	7006.4
Russian Academy of Architecture and Construction Sciences	…	16.3	394.4	420.7
Russian Academy of Education	6.1	50.7	636.5	676.3
Russian Academy of Arts	0.5	3.1	471.1	…[1)]

[1)] The data are not published in order to ensure the confidentiality of the data 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).

3.15. Average monthly salaries of R&D personnel

	1995	2000	2012	2013
Average monthly salaries, *roubles; 1995 – thousand roubles*	**305.3**	**2322.9**	**32539.9**	**35618.8**
As a per cent of that:				
in the national economy (=100%)	64.6	104.5	122.2	119.6
in manufacturing (=100%)	67.3	98.2	132.8	131.7
in construction (=100%)	52.0	88.0	125.4	128.6

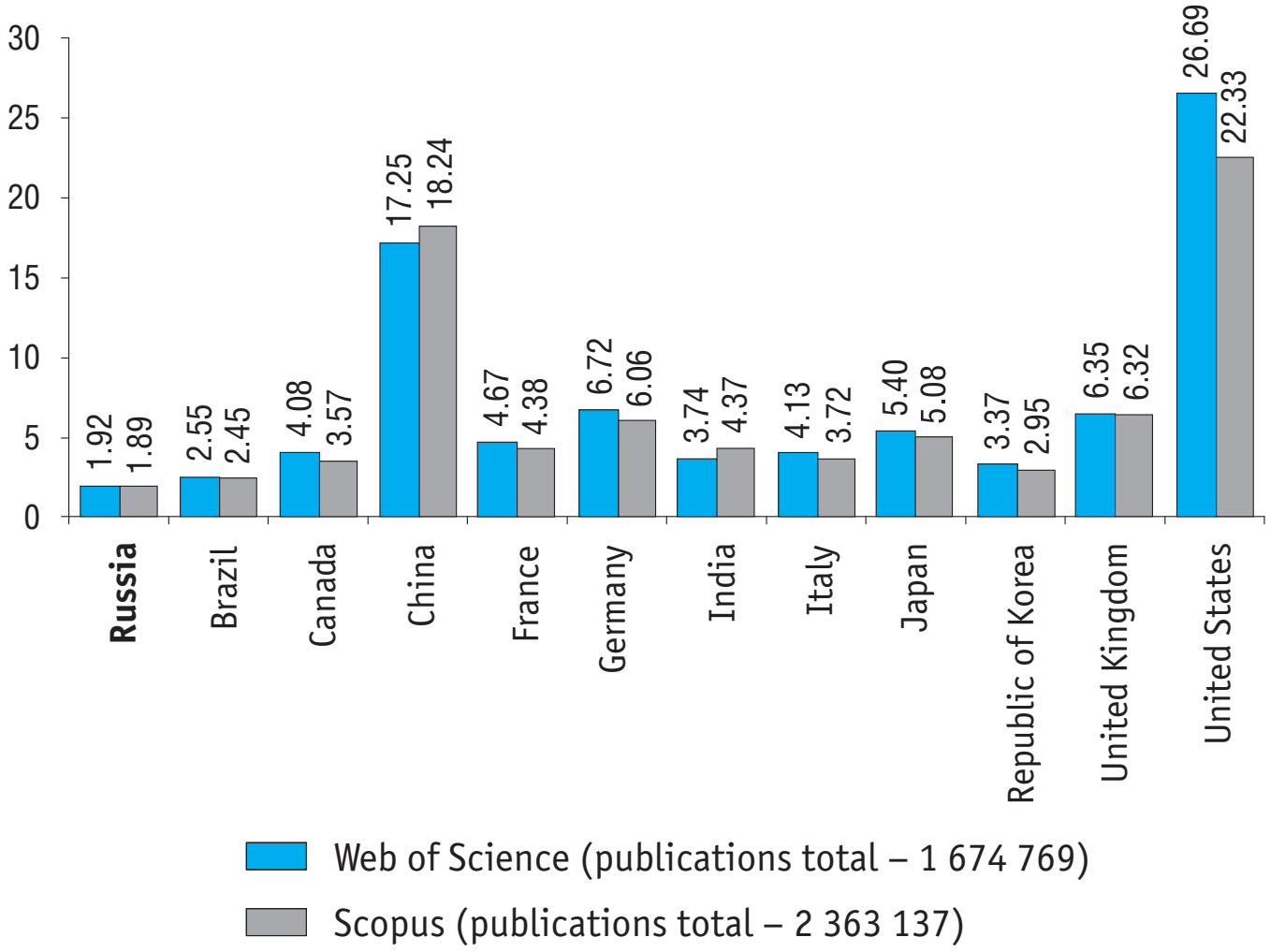
4. R&D Output

4.1. Publications in scientific journals indexed in international databases by country

	Web of Science		Scopus	
	2003	2013	2003	2013
Russia	28725	32172	33170	44680
Brazil	15803	42721	18680	57874
Canada	43769	68284	47536	84372
China	61904	288785	71072	431134
France	57207	78118	64408	103391
Germany	80329	112459	90179	143317
India	22879	62588	29742	103384
Italy	43669	69176	47957	87827
Japan	89593	90476	98431	120068
Republic of Korea	24157	56394	25641	69738
United Kingdom	73766	106392	90749	149248
United States	326067	413376	356863	527637

* Here and below including articles, reviews and conference papers (as of November 18, 2014).

4.2. Country shares in the total number of publications in scientific journals indexed in international databases: 2013



4.3. Patent applications and patents granted

	1995	2000	2010	2011	2012	2013
Patent applications filed in the Russian Federation	22202	28688	42500	41414	44211	44914
By residents	17551	23377	28722	26495	28701	28765
By non-residents	4651	5311	13778	14919	15510	16149
Patents granted with the indication of the Russian Federation	31556*	17592	30322	29999	32880	31638
To residents	20861	14444	21627	20339	22481	21378
To non-residents	4772	3148	8695	9660	10399	10260
Patents valid with the indication of the Russian Federation	76186	144325	181904	168558	181515	194248

* Including patents granted in exchange for author certificates.

4.4. Patent applications by country*

	1995	2000	2010	2013
Russia	22202	28688	42500	44914
Brazil	7448	17376	22686	30884
Canada	26592	39622	35449	34741
China	18699	51906	391177	825136
France	15896	17353	16580	16886
Germany	46158	62142	59245	63167
India	6566	8538	34287	43031
Italy	8574	9273	9723	9212
Japan	368831	419543	344598	328436
Republic of Korea	78499	102010	170101	204589
United Kingdom	27521	32747	21929	22938
United States	228142	295895	490226	571612

* All patent applications filed by residents and non-residents in national patent agencies.

Source: WIPO Statistics Database, December 2014.

4.5. Patent applications filed by residents and non-residents by country: 2013

	Patent applications filed in the country		
	Total	Of which	
		by residents	by non-residents
Russia	44914	28765	16149
Brazil	30884	4959	25925
Canada	34741	4567	30174
China	825136	704936	120200
France	16886	14690	2196
Germany	63167	47353	15814
India	43031	10669	32362
Italy	9212	8307	905
Japan	328436	271731	56705
Republic of Korea	204589	159978	44611
United Kingdom	22938	14972	7966
United States	571612	287831	283781

Source: WIPO Statistics Database, December 2014.

4.6. Patents granted with the indication of the Russian Federation by section of the International Patent Classification*

	1995	2000	2010	2011	2012	2013
Total	**25633**	**17592**	**30322**	**29999**	**32880**	**31638**
A. Human necessities	4207	4347	8468	907	9506	8042
B. Performing operations; transporting	6129	2905	4711	4412	4969	4965
C. Chemistry; metallurgy	4529	3332	5167	5512	5524	5779
D. Textiles; paper	437	197	320	301	274	271
E. Fixed constructions	2042	1156	1977	1603	1898	1807
F. Mechanical engineering; lighting; heating; weapons; blasting	3033	2144	3062	2761	3246	3453
G. Physics	3083	2172	3734	3881	4381	4285
H. Electricity	2173	1339	2883	2622	3082	3036

* Patents granted to resident and non-resident applicants.

4.7. Development of advanced manufacturing technologies by type and degree of novelty: 2013

	Total	Of which technologies	
		new to the country	radically new
Advanced manufacturing technologies	**1429**	**1276**	**153**
Of which:			
Design and engineering	426	367	59
Fabrication, processing and assembling	517	469	48
Automated material handing	22	21	1
Automated inspection and/or testing equipment	137	108	29
Communications and control	206	195	11
Manufacturing information systems	68	66	2
Integrated management and control	53	50	3

4.8. Use of advanced manufacturing technologies by type and duration: 2013

	Total	Of which technologies used during the period of		
		less than 1 year	1–5 years	6 years and over
Advanced manufacturing technologies	**193830**	**17689**	**81562**	**94579**
Of which:				
Design and engineering	38735	3437	17460	17838
Fabrication, processing and assembling	55424	5702	19150	30572
Automated material handing	1823	245	709	869
Automated inspection and/or testing equipment	11314	1160	5892	4262
Communications and control	78028	6528	34678	36822
Manufacturing information systems	5293	409	2435	2449
Integrated management and control	3213	208	1238	1767

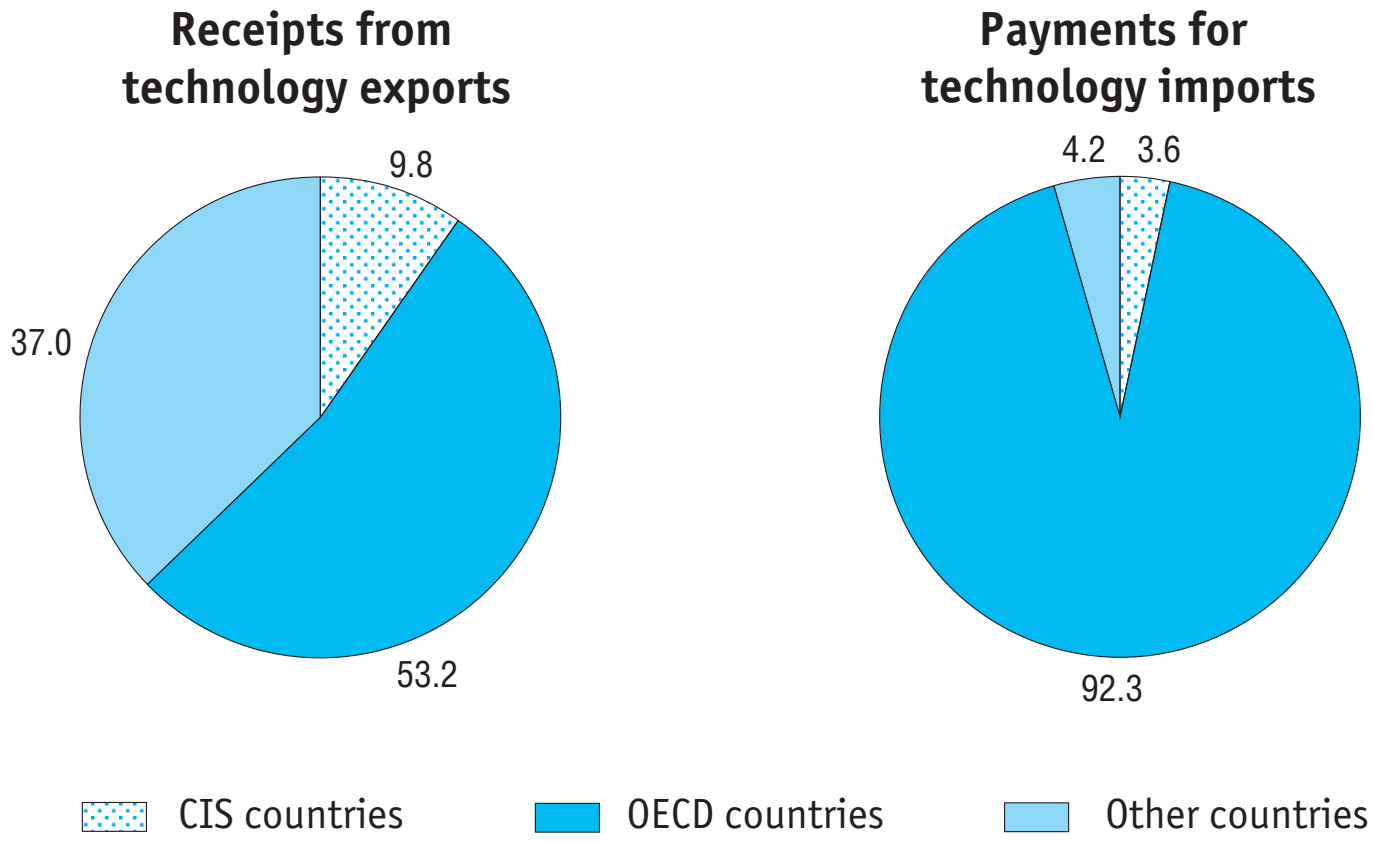
4.9. Technology balance of payments by category of contracts: 2013

(million US $)

	Receipts from exports	Payments for imports	Balance of payments
Total	**770.6**	**2463.6**	**-1693.0**
Invention patents	0.0	22.6	-22.6
Unpatented inventions	0.1	–	0.1
Patent licenses	25.4	86.0	-60.6
Utility models	0.1	2.0	-1.9
Know-how	11.8	133.7	-121.9
Trademarks	0.4	587.9	-587.5
Industrial designs	2.5	0.7	1.8
Engineering services	364.0	959.7	-595.7
Research and development	235.7	171.3	64.4
Others	130.6	499.7	-369.1

4.10. Percentage distribution of technology exports and imports in Russia by country groups: 2013

(per cent)



4.11. Technology balance of payments by country: 2013*

(million US $)

	Receipts from exports	Payments for imports	Balance of payments
Russia	770.6	2463.6	-1693.0
Brazil	–	–	–
Canada	2556.8	549.4	2007.4
China	–	–	–
France	5188.3	3233.5	1954.8
Germany	62901.7	54447.3	8454.4
India	–	–	–
Italy	18564.5	16825.3	1739.2
Japan	34102.4	5622.7	28479.7
Republic of Korea	5310.8	11052.0	-5741.2
United Kingdom	48874.7	26299.8	22574.9
United States	120361.0	84453.0	35908.0

* Or nearest years for which data is available.

5. Innovation

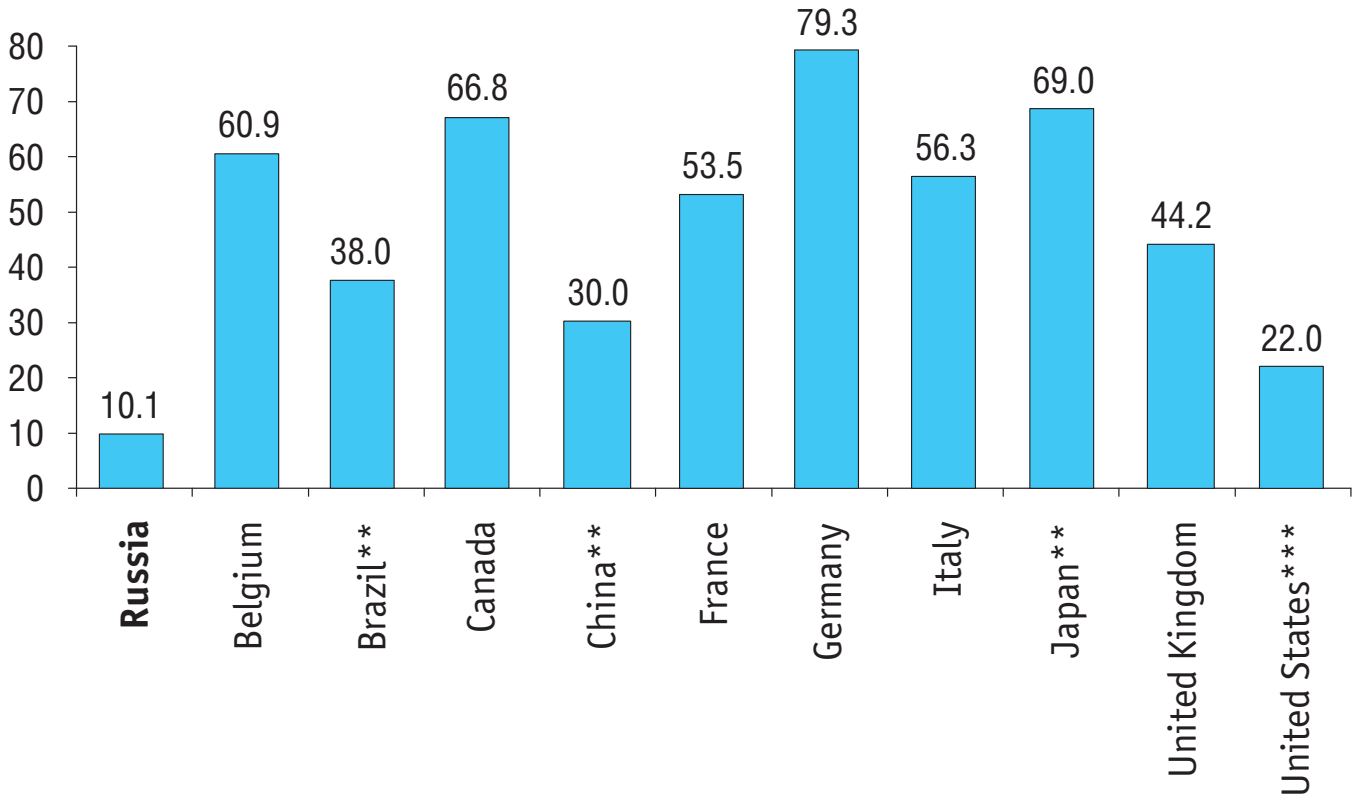
5.1. Main indicators of innovation in industry

	2000	2005	2010	2011	2012	2013
Enterprises engaged in technological innovation as a per cent of all industrial enterprises	10.6	9.3	9.3	9.6	9.9	9.7
Sales of innovative goods and services, *million roubles*	154135.0	545540.0	1165747.6	1847370.4	2509604.4	3072530.8
At constant 1995 prices	32626.7	52546.2	62312.8	85200.6	107667.7	124474.6
As a per cent of total sales	4.4	5.0	4.9	6.1	7.8	8.9
Expenditure on technological innovation, *million roubles*	49428.0	125678.2	349763.3	469442.2	583660.6	746778.2
At constant 1995 prices	10462.7	12105.3	18695.9	21650.6	25040.4	30253.5
As a per cent of total sales	1.4	1.2	1.5	1.5	1.8	2.2

5.2. Innovative activity: 2013

	Enterprises engaged in innovation as a per cent of all enterprises			
	Total	Technological	Marketing	Organisational
Industry	10.9	9.7	2.1	3.1
Mining and quarrying	7.6	6.4	0.4	2.5
Manufacturing	13.3	11.9	3.0	3.7
High tech	30.4	29.3	5.6	9.0
Medium high tech	19.3	18.0	3.5	5.2
Medium low tech	12.9	11.2	2.4	3.6
Low tech	7.6	6.2	2.5	2.0
Electricity, gas and water supply	5.3	4.7	0.3	1.5
Services	8.8	7.7	1.5	2.6

5.3. Enterprises engaged in technological, organisational or marketing innovation as a per cent of all enterprises by country: 2013*



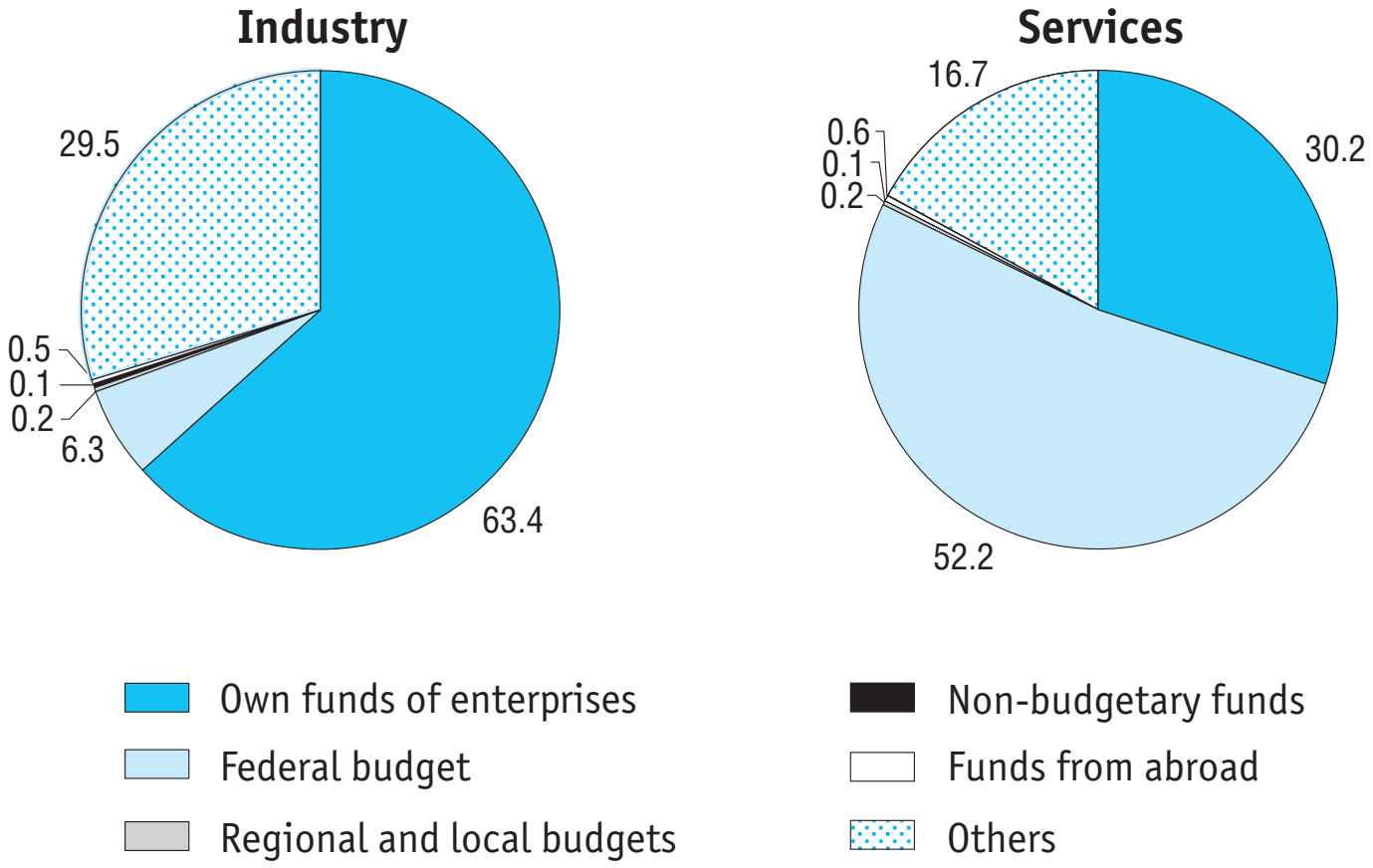
* Or other nearest years for which data is available.
** Enterprises engaged in technological innovation as a per cent of all enterprises.
*** Enterprises engaged in product innovation as a per cent of all enterprises.

5.4. Expenditure on technological innovation: 2013

	Total, *million roubles*	Of which, *per cent*		
		R&D	acquisition of machinery and equipment	acquisition of technology
Industry	746778.2	20.4	59.1	0.7
Mining and quarrying	94525.7	23.2	63.0	0.8
Manufacturing	580116.4	18.4	59.5	0.7
High tech	73979.1	35.7	39.8	0.4
Medium high tech	144567.4	16.3	53.6	1.1
Medium low tech	279344.4	11.7	69.2	0.6
Low tech	44581.3	11.6	78.5	0.4
Electricity, gas and water supply	72136.2	32.6	50.9	0.7
Services	365651.0	70.7	14.2	0.9

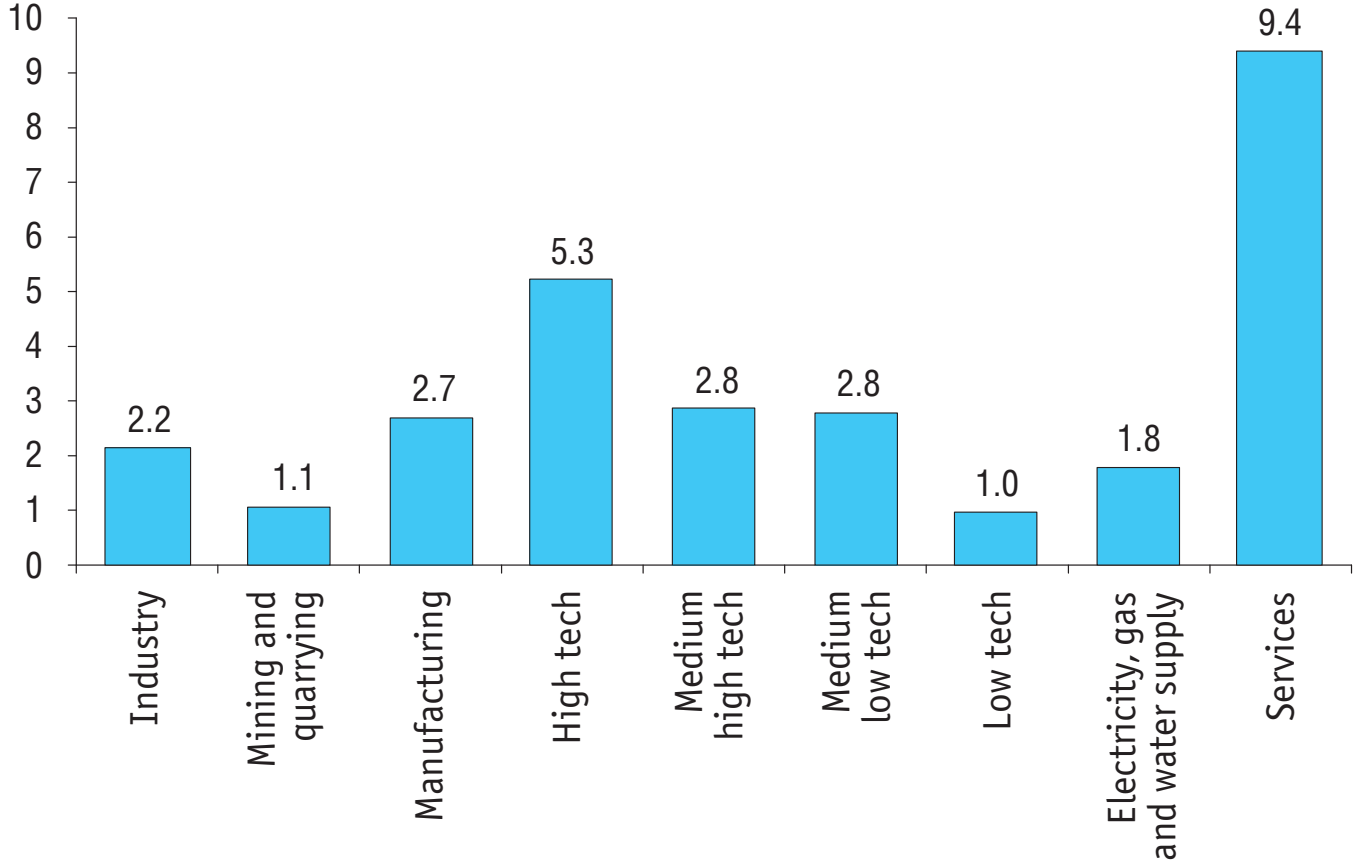
5.5. Expenditure on technological innovation by source of funds: 2013

(per cent)



5.6. Intensity of expenditure on technological innovation: 2013

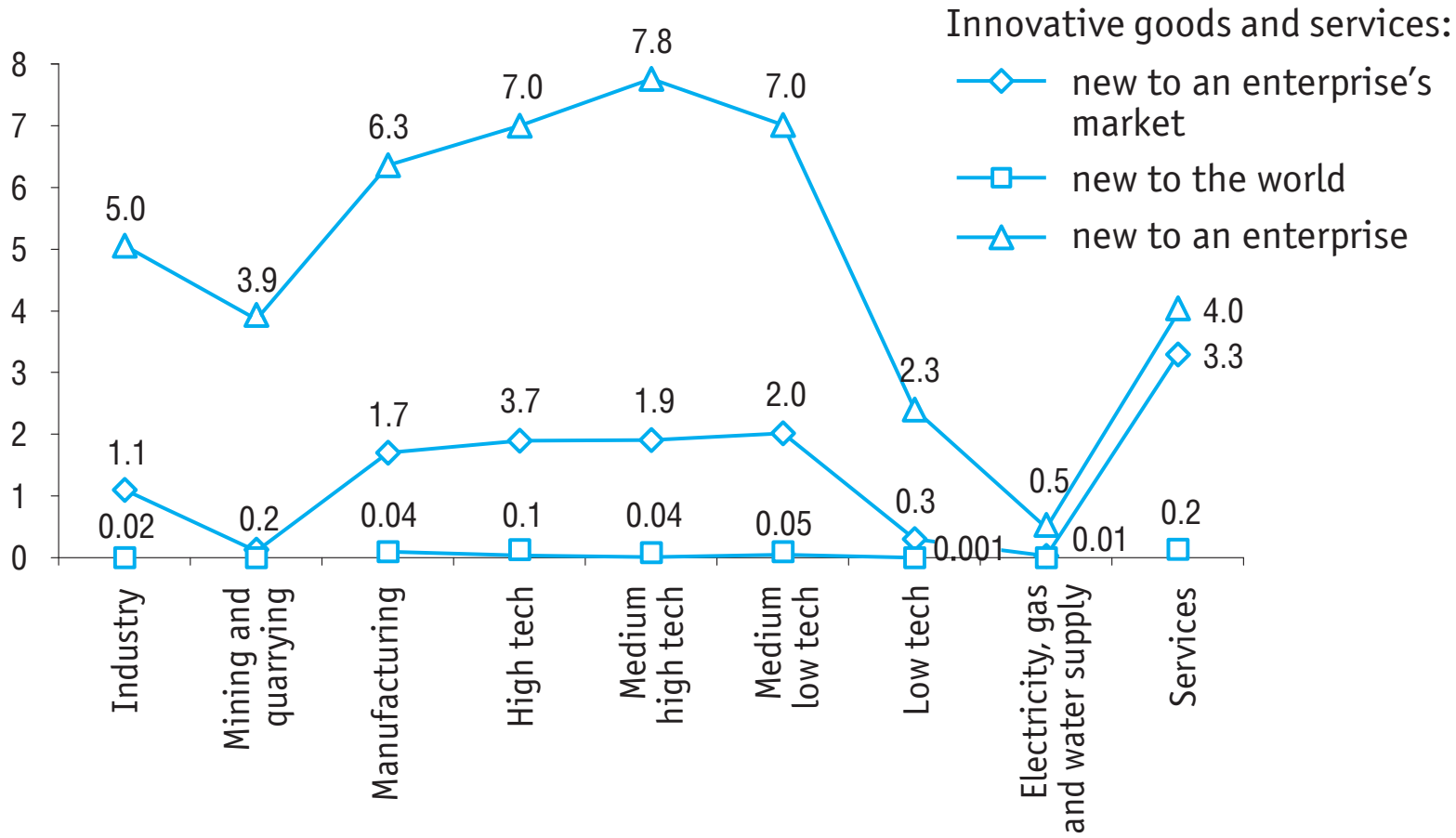
(ratio of expenditure to total sales of enterprises engaged in technological innovation; per cent)



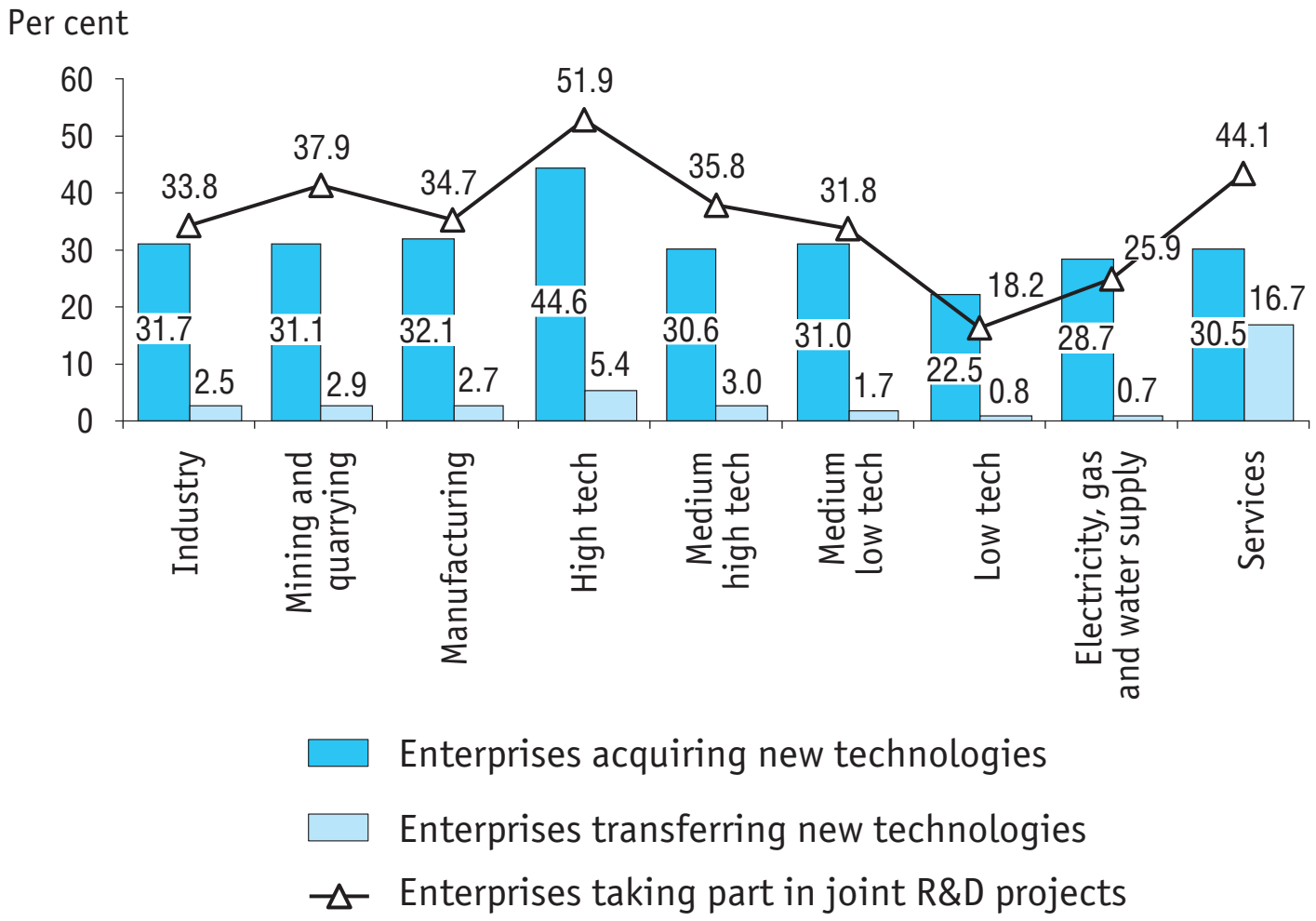
5.7. Sales of innovative goods and services: 2013

	Million roubles	As a per cent of total sales
Industry	3072530.8	8.9
Mining and quarrying	523210.5	6.0
Manufacturing	2518618.0	11.6
High tech	237489.4	16.9
Medium high tech	779083.8	15.4
Medium low tech	1204065.0	12.1
Low tech	163551.4	3.5
Electricity, gas and water supply	30702.2	0.8
Services	435335.2	11.2

5.8. Technologically new or significantly improved goods and services as a per cent of total sales: 2013

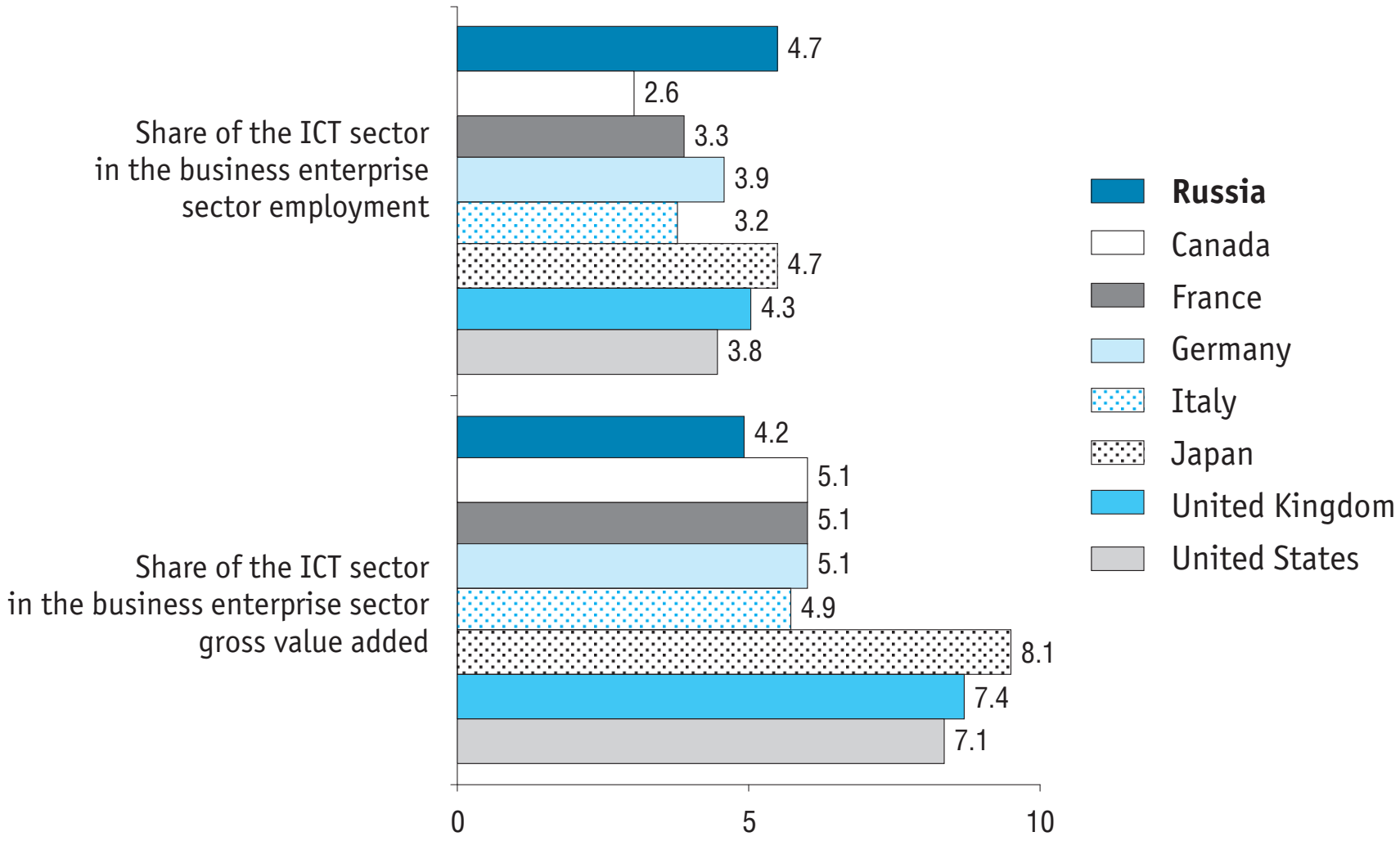


5.9. Co-operation links of enterpises engaged in technological innovation: 2013



6. Information Society

6.1. Main indicators of the ICT sector by country: 2013*

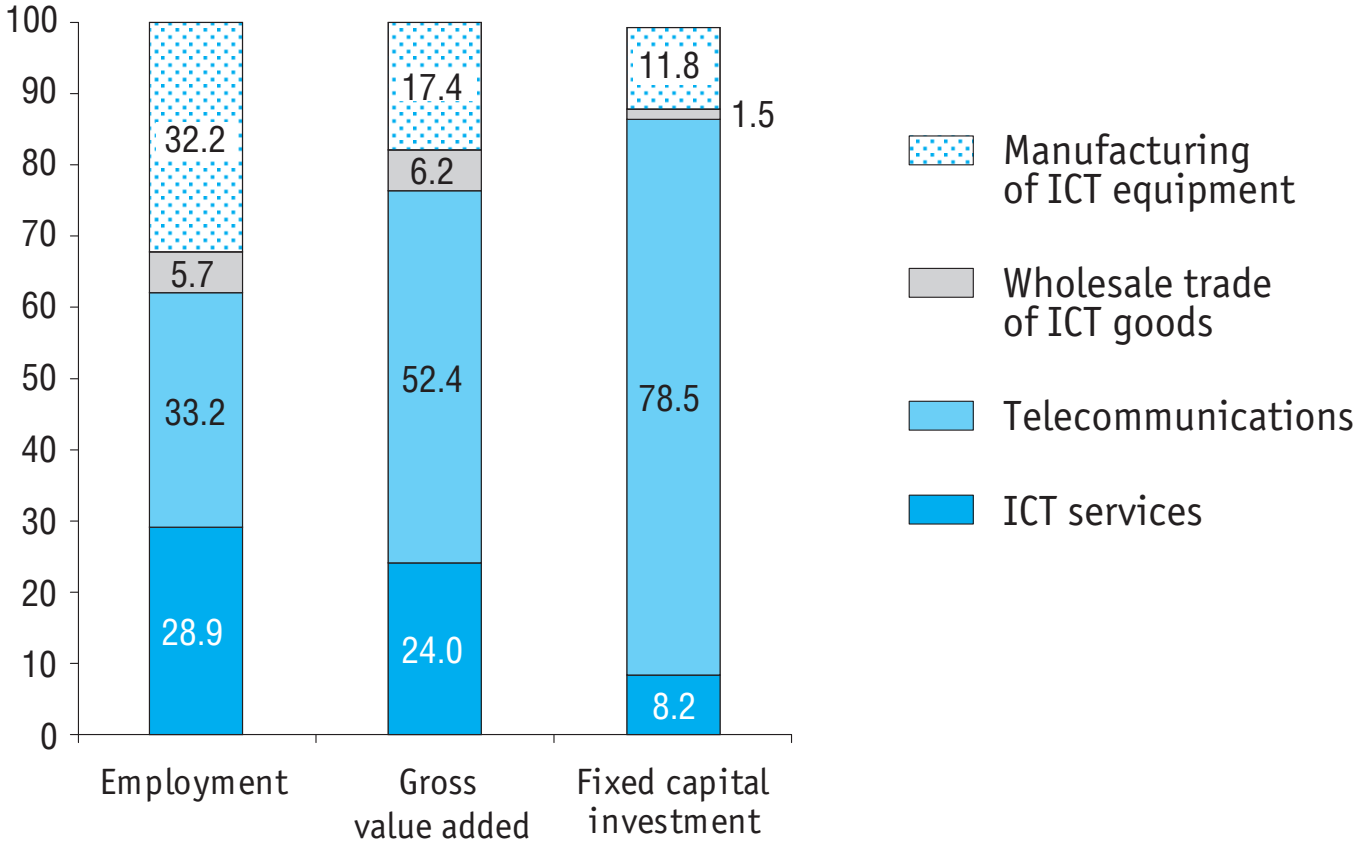


* Or nearest years for which data is available.

6.2. The ICT sector in Russia

	2005	2010	2011	2012	2013
Employment:					
thousand	1347	1306	1268	1294	1323
as a per cent of the national employment total	2.8	2.8	2.8	2.8	2.9
Gross value added:					
billion roubles	660	1354	1539	1770	1931
as a per cent of GDP	3.6	3.4	3.2	3.3	3.4
Fixed capital investment:					
billion roubles	271	297	355	409	371
as a per cent of the fixed capital investment total	7.5	3.2	3.2	3.2	2.8
Foreign investment in the ICT sector:					
million US dollars	3520	5389	5920	3673	3560
as a per cent of foreign investment total	6.6	4.7	3.1	2.4	2.1

6.3. Main indicators of the ICT sector by economic activity: 2013



6.4. Enterprises using ICT by economic activity: 2013

(as a per cent of all enterprises)

	Personal computers		Internet		Website	
	2005	2013	2005	2013	2005	2013
Total	**91.1**	**94.0**	**53.3**	**88.1**	**14.8**	**41.3**
Business enterprise sector	90.0	91.6	59.5	86.8	18.1	40.4
R&D	96.3	96.8	85.0	95.1	41.8	68.8
Higher education	98.1	98.9	91.0	97.8	50.4	82.4
Health and social work	95.3	98.1	47.8	96.5	7.4	50.6
Recreational, cultural and sporting activities	77.6	89.8	39.6	74.0	11.2	26.9
Financial intermediation	96.0	96.0	83.3	94.4	38.8	62.9
Public administration; compulsory social security	93.3	98.1	41.0	92.7	8.2	42.4

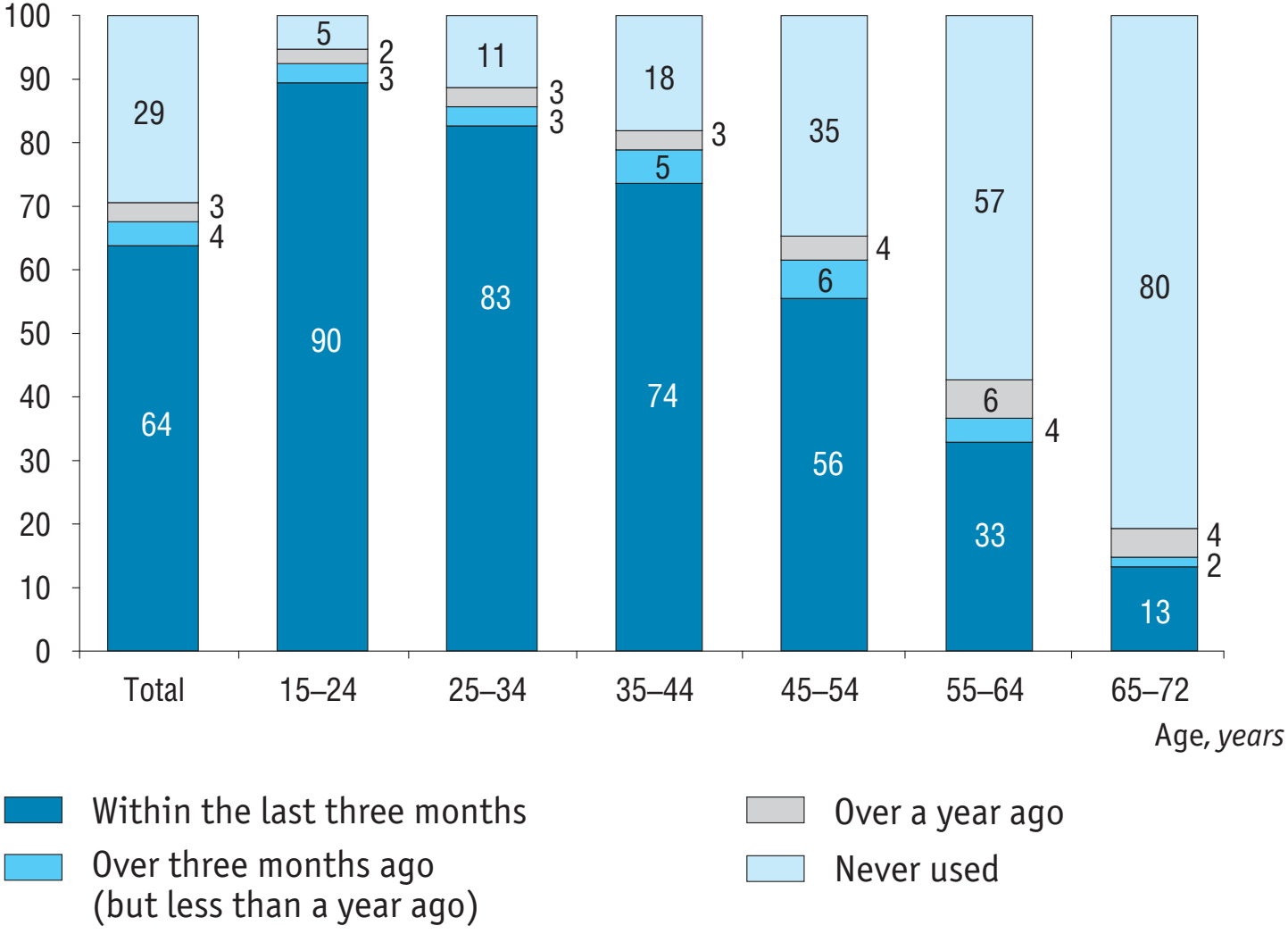
6.5. Enterprises using a broadband access to the Internet by economic activity: 2013

(as a per cent of all enterprises)

	Total	Of which top Internet connection speed				
		256–511 Kbps	512 Kbps – 1.9 Mbps	2.0–30.0 Mbps	30.1–100.0 Mbps	Over 100 Mbps
Total	**79.4**	**11.1**	**18.1**	**31.7**	**9.2**	**9.3**
Business enterprise sector	80.7	9.2	15.5	34.7	9.6	11.7
R&D	91.2	5.8	9.6	40.0	18.1	17.7
Higher education	94.7	4.3	10.8	47.5	16.4	15.7
Health and social work	87.8	12.1	24.8	35.5	8.2	7.2
Recreational, cultural and sporting activities	62.6	14.3	18.6	17.4	7.3	5.0
Financial intermediation	92.2	5.2	11.2	50.5	11.9	13.4
Public administration; compulsory social security	79.8	13.7	21.1	28.8	9.3	6.9

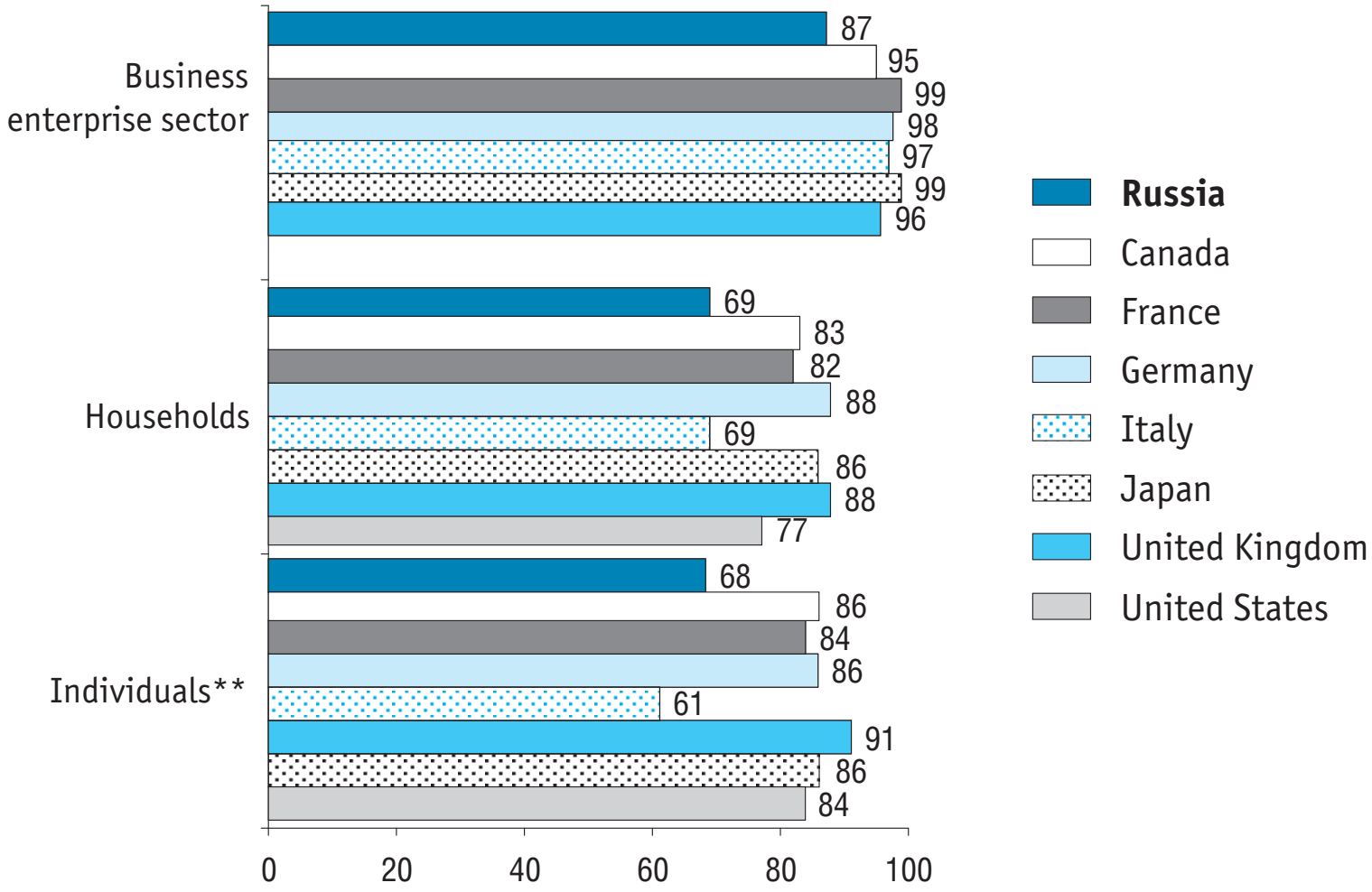
6.6. Frequency of the Internet usage by population

(as a per cent of respondents aged 15–72)



6.7. Internet usage by country: 2013*

(as a per cent of all enterprises / households / individuals)



* Or nearest years for which data is available.

** Internet usage within the latest 12 months is considered.

7. Public Attitudes towards Science, Technology, and Innovation

7.1. Public opinion on priorities in social and economic development: 2014*

*(as a per cent of the total number of respondents**)*

What areas, in your opinion, should be primarily developed in Russia?

Agriculture, forestry and fishery	53
Technological level of industry	38
Medicine and healthcare	31
Defense capacity of the country	21
Dwelling construction	21
Transport infrastructure (roads, vehicles, etc.)	17
Social and cultural spheres (education, culture, social protection)	12
Science and technology in general	11
Sustainable electricity consumption	11
Sustainable use of resources of the Earth and atmosphere	11
Infrastructure and general panning of urban areas	10
Environmental protection	10
Quality of communications (i.e. radio, television, Internet)	6
Service sector	4
Peaceful use of outer space	4
Interaction of citizens with public authorities	2

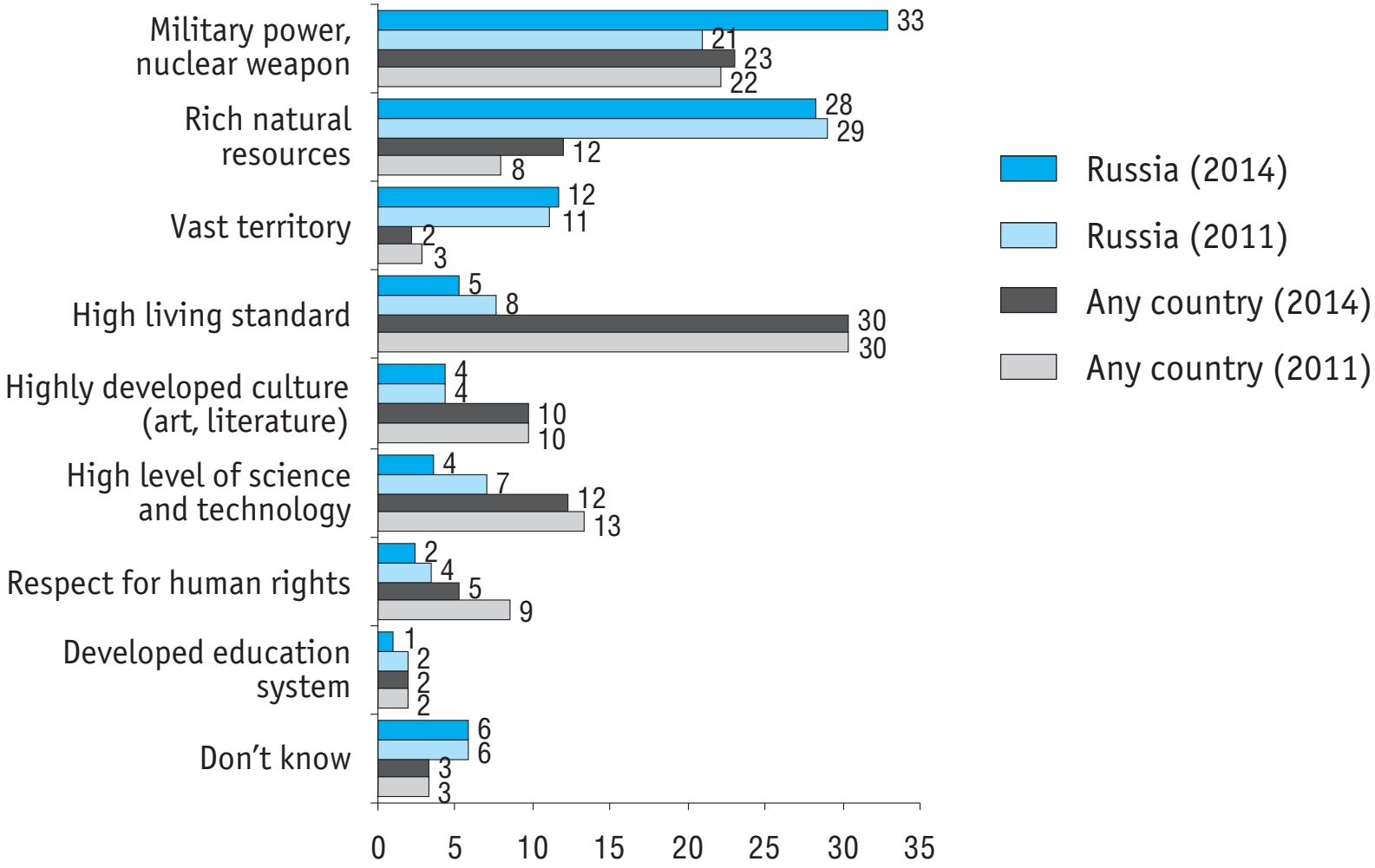
* This section presents data from the public opinion surveys of population aged 16 and older (for 2009 – 18 and older).

** The sum exceeds 100% because respondents could give several answers.

7.2. Symbols of national prestige in Russia

(as a per cent of the total number of respondents)

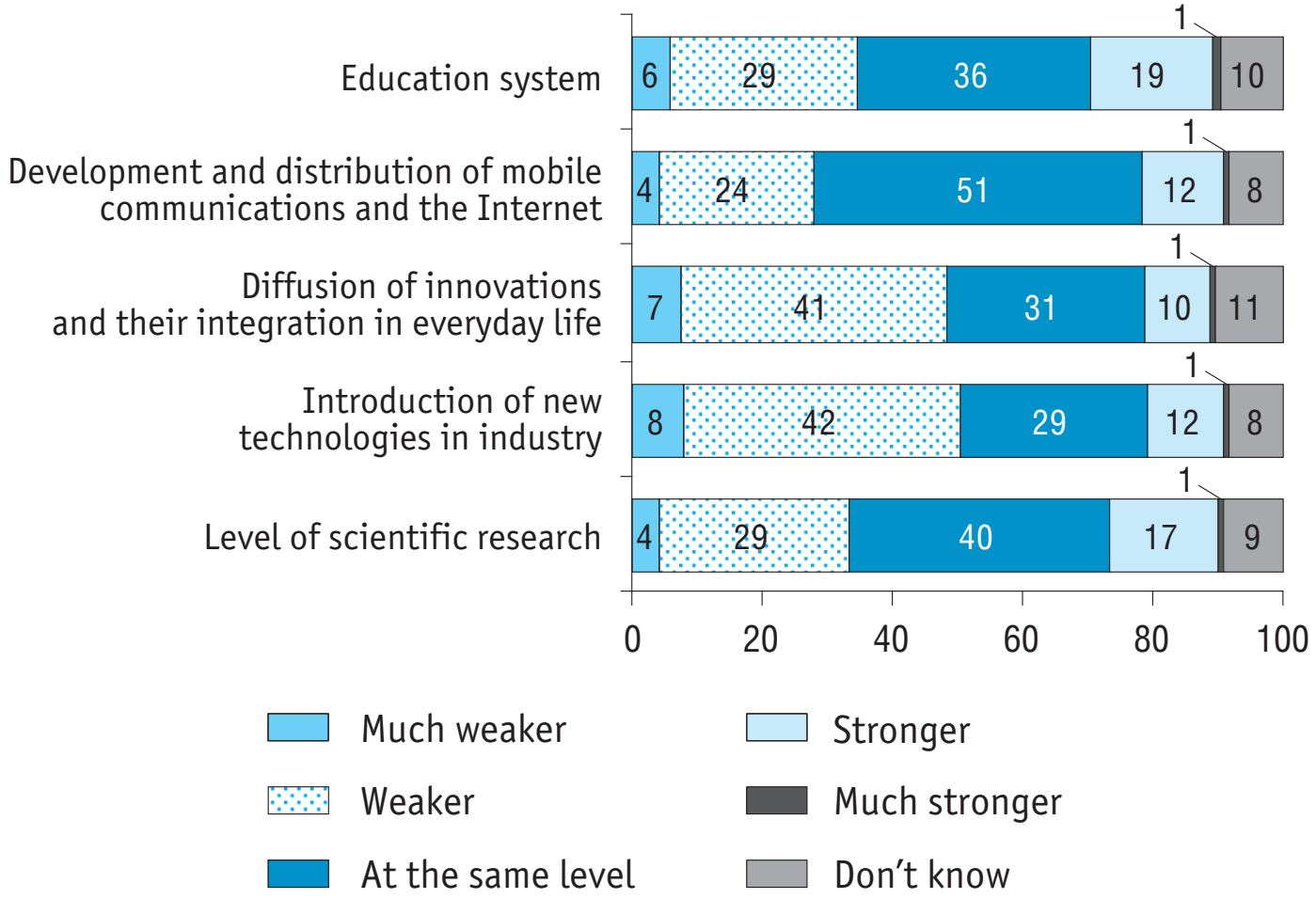
What should a country primarily possess to be respected by other nations? What is now the primary reason for other nations to respect Russia?



7.3. Public opinion on science, technology, innovation, and education development: 2014

(as a per cent of the total number of respondents)

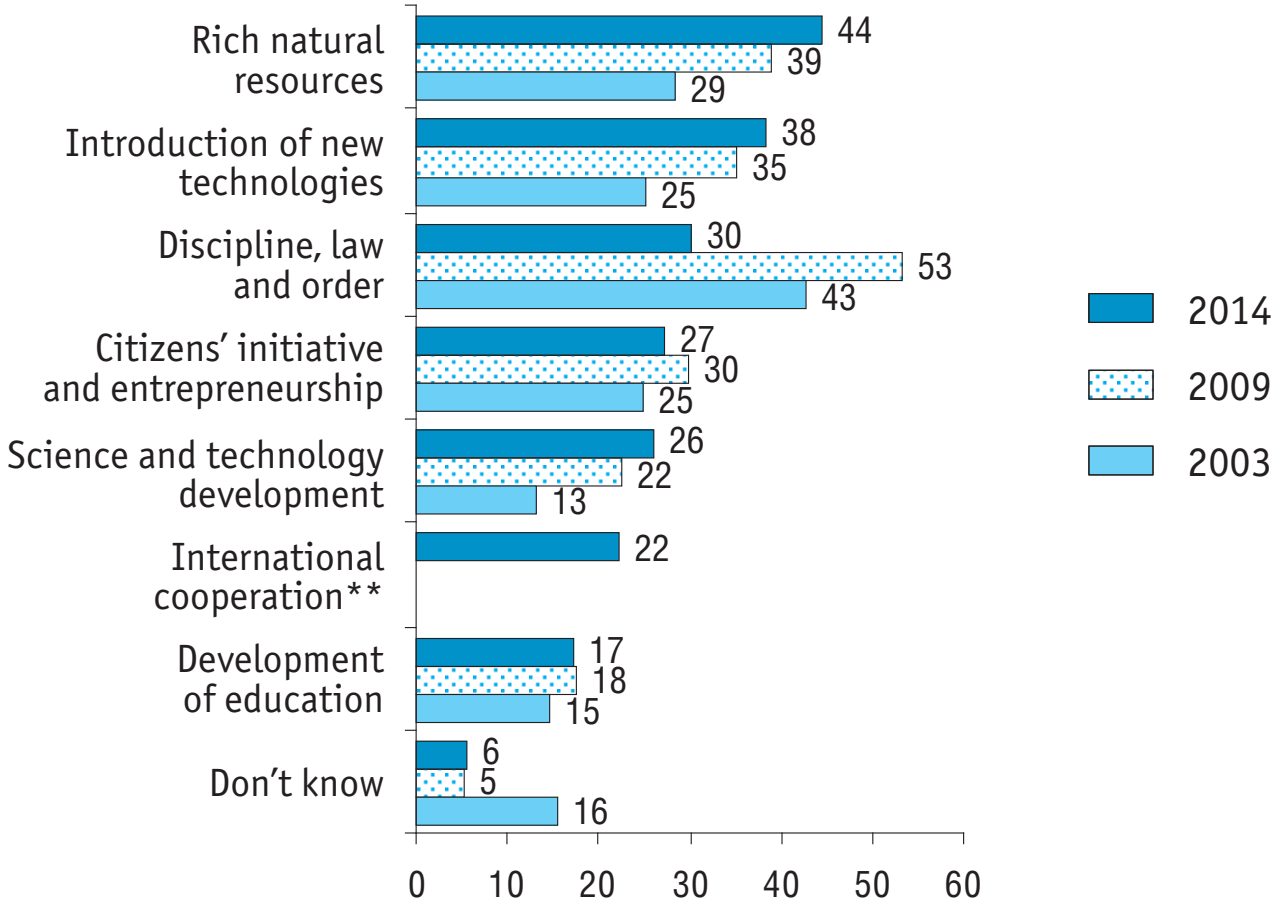
In comparison with other advanced countries, is Russia stronger or weaker in the following fields?



7.4. Public opinion on the factors of economic growth

(as a per cent of the total number of respondents)*

In your opinion, what is the main factor of economic growth in Russia?



* The sum exceeds 100% because respondents could give several answers.

** This option was added in 2014.

Technical Notes

Bibliometric indicators are calculated on the basis of Scopus and Web of Science databases. Publications considered include scientific articles, conference papers and reviews. A publication is associated with a country if it is listed in the affiliated address of author or one of co-authors.

Federal budget appropriations on civil S&T – federal budget funds allocated for civil-purpose basic and applied scientific research.

Gross domestic expenditure on R&D – actual expenditure on research and development performed by organisations during the reference year irrespective of financing sources, expressed in a monetary form.

Information and communication technologies (ICT) – the types of technologies using microelectronics for collection, storage, processing, retrieval, transmission, and presentation of data, texts, images, and sounds.

Marketing innovation is the implementation of a new or significantly improved marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.

Number of personnel in full-time equivalent is the indicator which reflects the sum of timeshares actually spent by R&D personnel on R&D activities and is measured in person-years.

Organisational innovation is the implementation of a new organisational method in the firm's business practices, workplace organisation or external relations.

R&D personnel are professionals whose 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 performance of R&D.

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.

Technological innovations are the final result of innovative activities, embodied in a technologically new or improved good or service introduced on a market, a technologically new or improved process or technique of service production (transfer) used in practice.

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

Science and Technology. Innovation. Information Society

Pocket Data Book

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