SCIENCE, INNOVATIONS AND TECHNOLOGY IN THE REPUBLIC OF BELARUS

State Committee on Science and Technology
of the Republic of Belarus

Short
Statistical
Book

2008

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УДК 001 (476)

Prepared by: **A. Chernysh, O. Titko**

Edited by: **I. Voitau, A. Korshunov, I. Khartonik**

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The Short Statistical Book has been prepared at the request of the State Committee on Science and Technology of the Republic of Belarus and contains statistical data on the condition and development of scientific capacity and innovation activity in the country, which are based on the up-to-date methods used in the production of science and innovation statistics and comply with international statistical standards.
The Book is intended for scientists, teaching staff in higher education institutions, engineers, statisticians, businessmen, and diplomatic personnel.

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CONTENTS

RESEARCH AND DEVELOPMENT EXPENDITURE

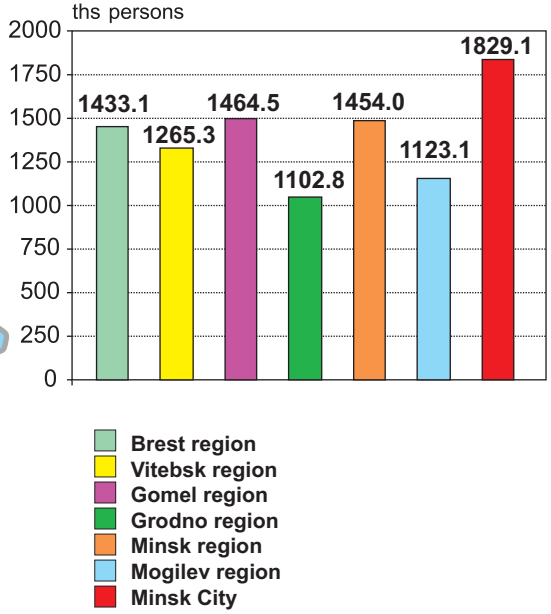
RESEARCH AND DEVELOPMENT MATERIAL AND TECHNICAL BASIS

RESEARCH AND DEVELOPMENT EFFECTIVENESS

TECHNOLOGICAL INNOVATIONS

INTERNATIONAL COMPARISONS

POPULATION SIZE OF THE REPUBLIC OF BELARUS



1

RESEARCH AND DEVELOPMENT ORGANIZATIONS

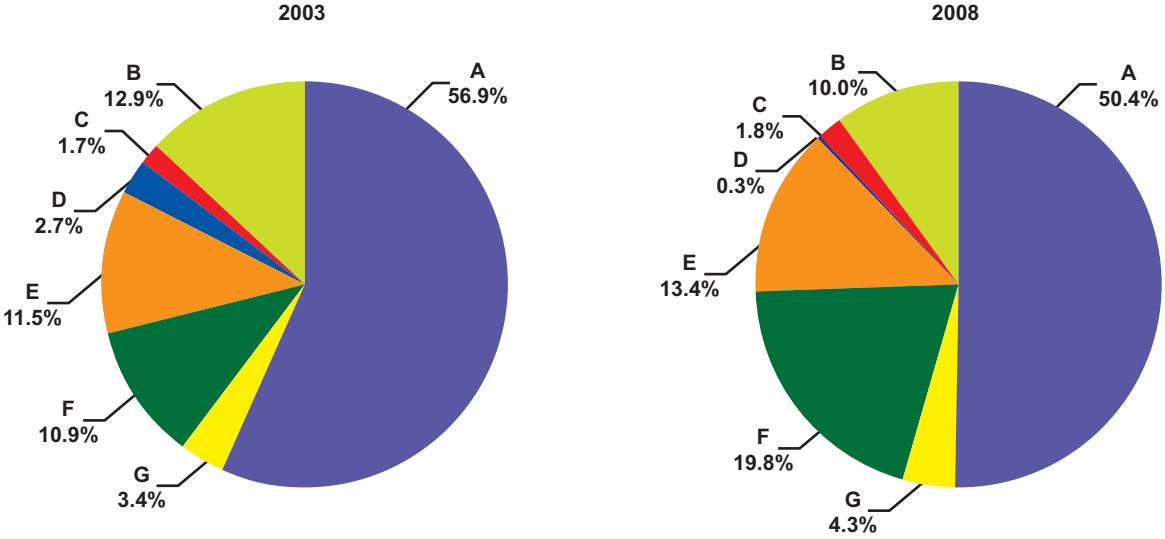
1.1. ORGANIZATIONS ENGAGED IN SCIENTIFIC RESEARCH AND DEVELOPMENT, BY SECTOR OF PERFORMANCE

	Number of organizations					
	2003	2004	2005	2006	2007	2008
Total	**295**	**295**	**322**	**338**	**340**	**329**
of which						
government sector	122	120	122	139	131	127
business enterprise sector	122	121	144	142	146	140
higher education sector	51	54	56	57	63	62

1.2. ORGANIZATIONS ENGAGED IN SCIENTIFIC RESEARCH AND DEVELOPMENT, BY OWNERSHIP TYPE

	2003	2004	2005	2006	2007	2008
Total	**295**	**295**	**322**	**338**	**340**	**329**
of which						
government ownership	267	266	289	304	298	291
private ownership	28	29	33	34	42	38

1.3. STRUCTURE OF ORGANIZATIONS ENGAGED IN SCIENTIFIC RESEARCH AND DEVELOPMENT, BY TYPE



A Research organizations
B Design offices
C Design and survey organizations
D Pilot plants
E Higher education institutions
F Industrial enterprises
G Other

2

PERSONNEL TRAINING

2.1. STATE INSTITUTIONS PROVIDING HIGHER EDUCATION BY TYPES OWNERSHIP

(beginning of academic year)

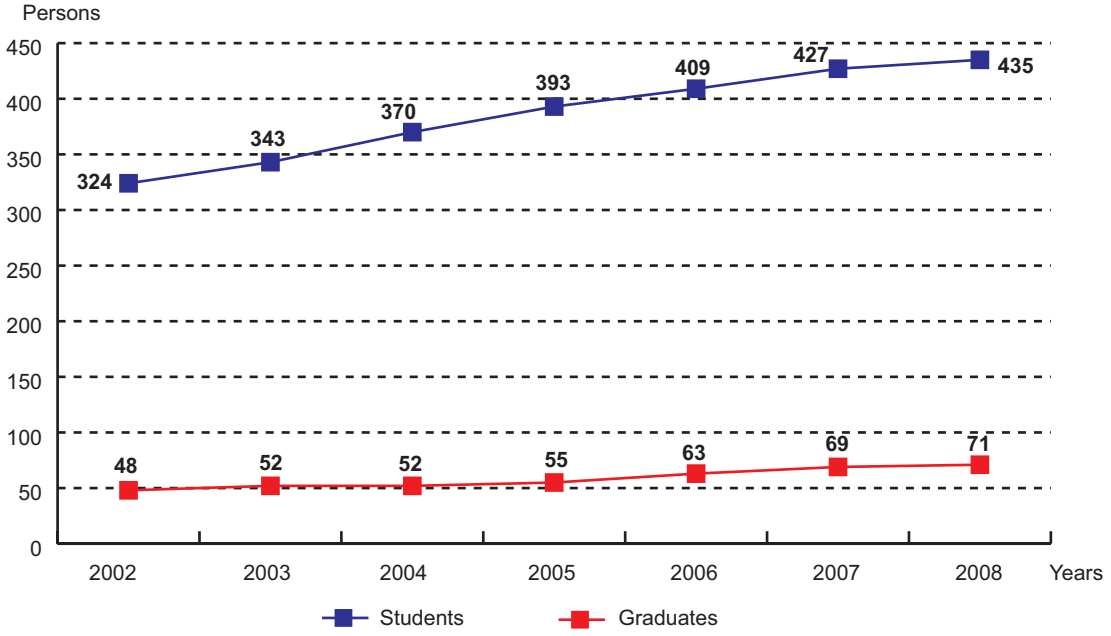
	Number of institutions	Number of students there in, ths	Of which at departments		
			day-time	evening	correspondence
2003/2004	43	279.2	164.7	1.8	112.7
2004/2005	43	304.1	171.8	2.1	130.2
2005/2006	43	324.8	177.7	1.8	145.3
2006/2007	43	338.9	182.5	1.1	155.3
2007/2008	43	355.0	190.4	0.9	163.7
2008/2009	43	362.9	195.1	0.7	167.1

2.2. PRIVATE INSTITUTIONS PROVIDING HIGHER EDUCATION BY TYPES OWNERSHIP

(beginning of academic year)

	Number of institutions	Number of students there in, ths	Of which at departments		
			day-time	evening	correspondence
2003/2004	16	58.6	18.8	–	39.8
2004/2005	12	58.8	16.5	0.1	42.2
2005/2006	12	58.2	14.8	0.2	43.2
2006/2007	12	58.0	14.5	0.1	43.4
2007/2008	10	58.7	14.9	0.1	43.7
2008/2009	10	57.8	14.8	–	43.0

2.3. NUMBER OF STUDENTS AND GRADUATES FROM HIGHER EDUCATION INSTITUTIONS PER 10 000 POPULATION



2.4. NUMBER OF TEACHING STAFF IN HIGHER EDUCATION INSTITUTIONS

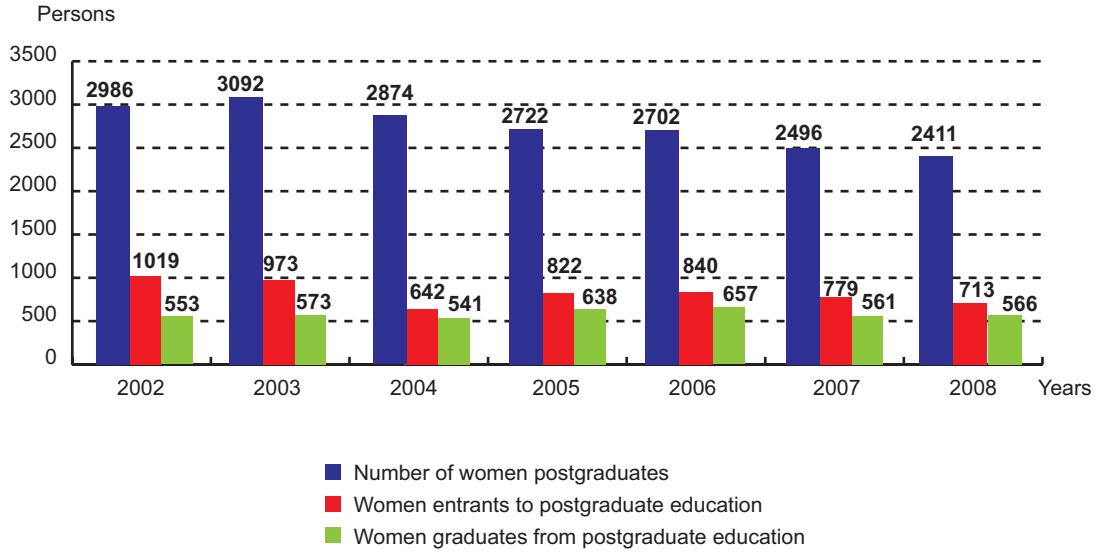
(persons)

	2003	2004	2005	2006	2007	2008
Number of teaching staff in higher education institutions (excluding multiple jobholders)	**22 628**	**22 926**	**23 320**	**23 203**	**23 595**	**23 955**
with academic status of						
academicians, corresponding members	54	48	45	41	44	41
professors	1213	1213	1245	1263	1270	1278
docents	6088	6125	6270	6367	6583	6913
senior research officers	253	257	247	235	219	154
with academic degree of						
doctors of science	1300	1308	1344	1352	1358	1366
candidates of science	8235	8352	8519	8,503	8604	8710
out of teaching and research staff — women	11 833	12 059	12 421	12 419	12 838	13 143

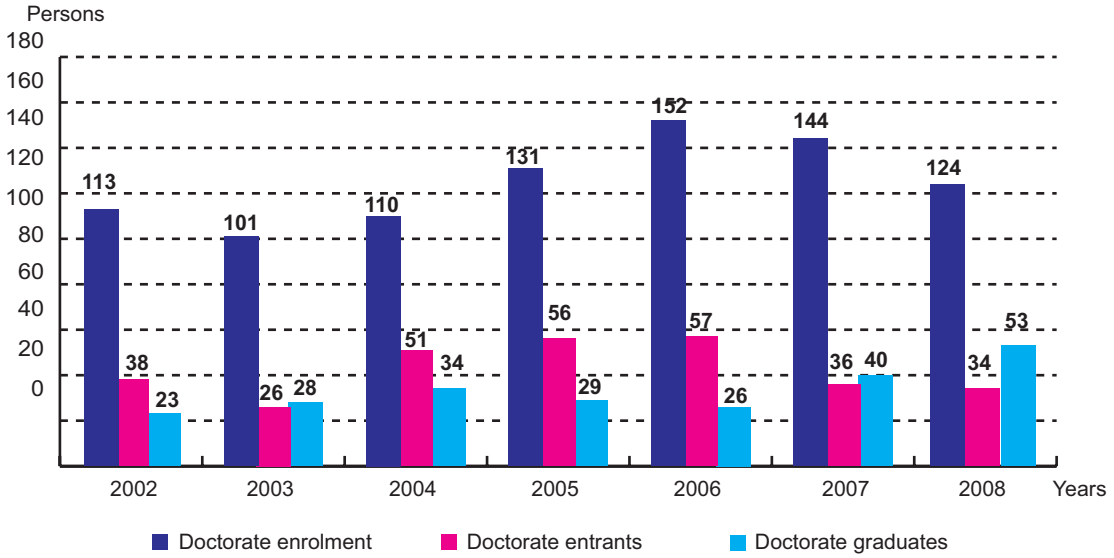
2.5. MAIN INDICATORS OF POSTGRADUATE EDUCATION

	Number of institutions engaged in postgraduate education	Number of postgraduates, persons	Postgraduate entrants, persons	Postgraduate graduates, persons
2003	121	5964	1796	1232
2004	119	5419	1511	1333
2005	119	5042	1508	1296
2006	118	4857	1552	1242
2007	118	4498	1428	1093
2008	116	4281	1317	1083

2.6. POSTGRADUATE EDUCATION ADMITTANCE, ENROLMENT AND GRADUATES FOR WOMEN



2.7. INDICATORS OF DOCTORATE EDUCATION



2.8. CANDIDATE'S AND DOCTOR'S DEGREES CONFERRED BY THE SUPREME CERTIFYING COMMISSION (SCC) OF THE REPUBLIC OF BELARUS, BY YEAR AND FIELD OF SCIENCE

	Candidate's degrees					Doctor's degrees				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Total	**738**	**661**	**578**	**531**	**568**	**116**	**116**	**44**	**53**	**53**
of which										
physics and mathematics	57	62	58	50	54	18	15	8	12	5
chemistry	18	27	16	24	27	1	3	1	1	–
biology	44	54	38	50	33	7	7	2	1	–
geology and mineralogy	4	1	1	3	2	–	–	–	2	–
engineering	126	96	124	81	108	28	36	13	12	13
agriculture	67	32	43	32	32	7	5	4	3	7
history	35	37	27	23	25	2	4	2	2	3
economics	41	56	39	32	45	8	8	2	3	1
philosophy	11	9	6	6	3	2	1	–	–	1
philology	64	43	33	46	40	9	4	1	–	1
geography	4	4	3	2	1	–	–	1	1	2
law	57	39	23	36	30	2	1	–	2	–
teacher training	33	29	16	15	15	4	1	1	–	1
medicine	108	110	100	85	110	20	25	6	9	14
pharmacology	2	2	1	1	2	–	–	–	1	–
veterinary	7	19	14	11	8	2	1	1	1	1
art-criticism	11	11	17	11	11	2	4	–	–	1
architecture	1	4	2	1	–	1	–	–	–	2
psychology	16	7	8	5	7	–	–	–	1	–
sociology	12	13	4	6	6	2	–	1	2	–
politics	2	2	–	4	6	1	1	1	–	1
culturology	3	2	2	–	2	–	–	–	–	–
other	15	2	3	7	1	–	–	–	–	–

3

RESEARCH AND DEVELOPMENT PERSONNEL

3.1. SCIENTIFIC RESEARCH AND DEVELOPMENT PERSONNEL, BY CATEGORY

(persons)

	Scientific research and development personnel	Of them			
		researchers	technicians	supporting staff	other
2003	29 981	17 702	2337	5999	3943
2004	28 750	17 034	2068	5844	3804
2005	30 222	18 267	2112	5763	4080
2006	30 544	18 494	2263	5715	4072
2007	31 294	18 995	2312	5880	4107
2008	31 473	18 455	2278	6466	4274

3.2. SCIENTIFIC RESEARCH AND DEVELOPMENT PERSONNEL, BY SECTOR OF PERFORMANCE

(persons)

	Number of scientific research and development personnel		Of which with educational attainment							
			higher		of them with academic degree				secondary specialized	
					doctor of science		candidate of science			
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Total	**31 294**	**31 473**	**23 136**	**22 878**	**744**	**726**	**3176**	**3143**	**3420**	**3587**
of them										
government sector	14 262	13 875	10 397	10 193	605	582	2360	2274	1657	1562
business enterprise sector	13 743	14 311	10 152	10 088	41	52	305	367	1590	1812
higher education sector	3289	3287	2587	2597	98	92	511	502	173	213

3.3. SCIENTIFIC RESEARCH AND DEVELOPMENT PERSONNEL, BY CATEGORY AND EDUCATIONAL ATTAINMENT

(persons)

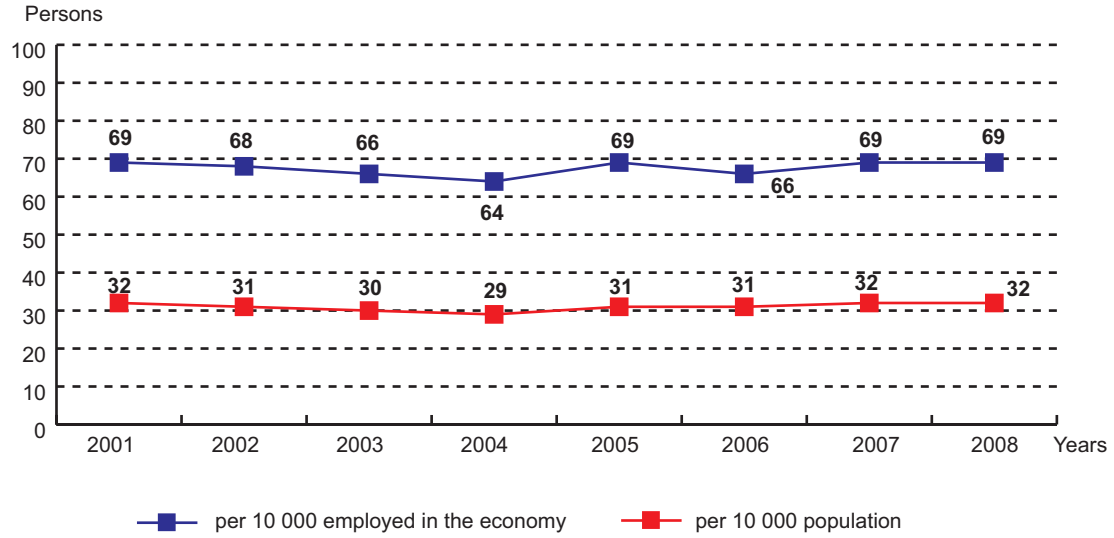
	Total		Of which with educational attainment							
			higher		of them with academic degree				secondary specialized	
					doctor of science		candidate of science			
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Number of scientific research and development personnel	**31 294**	**31 473**	**23 136**	**22 878**	**744**	**726**	**3176**	**3143**	**3420**	**3587**
of them										
researchers	18 995	18 455	18 555	17 980	743	725	3144	3112	377	410
technicians	2312	2278	631	568	–	–	–	–	1072	1087
supporting staff	5880	6466	2374	2608	1	1	23	20	1098	1229
other	4107	4274	1576	1722	–	–	9	11	873	861

3.4. SCIENTIFIC RESEARCH AND DEVELOPMENT PERSONNEL, BY CATEGORY AND SECTOR OF PERFORMANCE

(persons)

	Total	Government sector	Business enterprise sector	Higher education sector
			Total	
2005	**30 222**	**12 720**	**14 585**	**2917**
2006	**30 544**	**14 573**	**12 785**	**3186**
2007	**31 294**	**14 262**	**13 743**	**3289**
2008	**31 473**	**13 875**	**14 311**	**3287**
			of them	
			researchers	
2005	18 267	7811	8556	1900
2006	18 494	8581	7941	1972
2007	18 995	8448	8485	2062
2008	18 455	8217	8258	1980
			technicians	
2005	2112	733	1054	325
2006	2263	1109	747	407
2007	2312	1129	737	446
2008	2278	1142	740	396
			supporting staff	
2005	5763	2129	3182	452
2006	5715	2562	2665	488
2007	5880	2346	3040	494
2008	6466	2188	3676	602
			other	
2005	4080	2047	1793	240
2006	4072	2321	1432	319
2007	4107	2339	1481	287
2008	4274	2328	1637	309

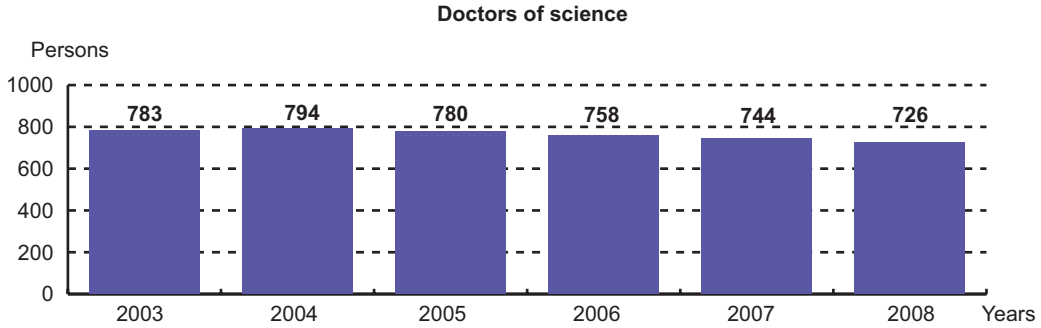
3.5. CHANGES IN THE NUMBER OF SCIENTIFIC RESEARCH AND DEVELOPMENT PERSONNEL

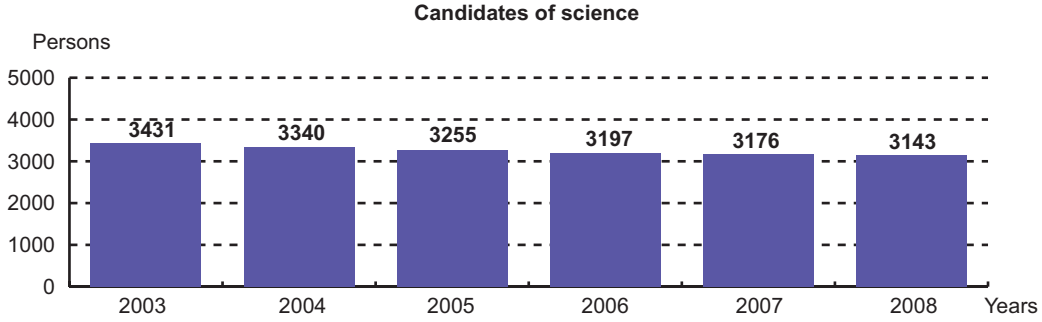


3.6. SCIENTIFIC RESEARCH AND DEVELOPMENT PERSONNEL, BY TYPE OF ORGANIZATION

	Number of scientific research and development personnel		Of which with educational attainment							
			higher		of which with academic degree				secondary specialized	
					doctor of science		candidate of science			
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Total	**31 294**	**31 473**	**23 136**	**22 878**	**744**	**726**	**3176**	**3143**	**3420**	**3587**
of which										
government ownership	28 493	28 795	21 044	21 002	739	721	3117	3074	3075	3208
private ownership	2801	2678	2092	1876	5	5	59	69	345	379

3.7. DOCTORS AND CANDIDATES OF SCIENCE ENGAGED IN SCIENTIFIC RESEARCH AND DEVELOPMENT





3.8. RESEARCHERS, BY SEX AND FIELD OF SCIENCE

(persons)

	Number of researchers				Of them							
	total		of them women		doctors of science				candidates of science			
					total		of them women		total		of them women	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Total	**18 995**	**18 455**	**8228**	**8106**	**743**	**725**	**116**	**121**	**3144**	**3112**	**1159**	**1147**
of which												
natural sciences	3700	3640	1864	1774	282	277	44	46	1131	1092	488	466
engineering and technology	11 553	10 977	4029	3929	205	191	12	11	951	921	142	146
medical sciences	978	954	642	637	83	90	23	24	299	312	188	194
agricultural sciences	1155	1183	666	710	75	72	14	16	367	374	156	157
social sciences	1224	1324	809	839	42	43	9	9	241	255	105	103
humanities	385	377	218	217	56	52	14	15	155	158	80	81

3.9. RESEARCHERS, BY SEX AND SECTOR OF PERFORMANCE

(persons)

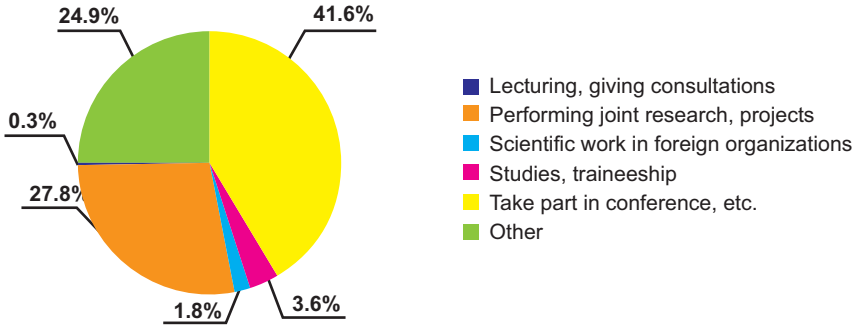
	Number of researchers				Of them with educational attainment									
	total		of them women		higher		of them with academic degree							
							doctor of science				candidate of science			
							total		of them women		total		of them women	
	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Total	**18 995**	**18 455**	**8228**	**8106**	**18 555**	**17 980**	**743**	**725**	**116**	**121**	**3144**	**3112**	**1150**	**1147**
of which														
government sector	8448	8217	4243	4125	8299	8086	605	582	105	105	2342	2256	959	919
business enterprise sector	8485	8258	3229	3191	8207	7926	41	52	1	4	298	362	57	83
higher education sector	2062	1980	756	790	2049	1968	97	91	10	12	504	494	143	145

3.10. RESEARCHERS WHO WORKED ABROAD, BY SEX AND SECTOR OF PERFORMANCE: 2008

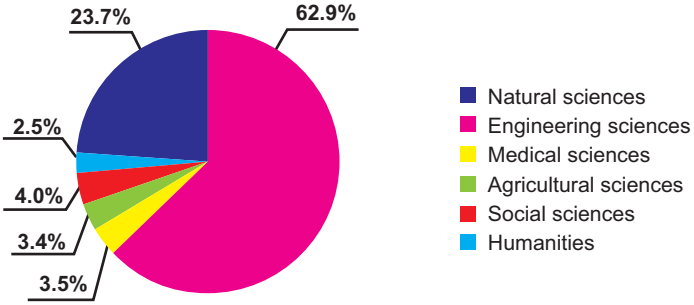
(persons)

	Number of researchers who worked abroad	Of them having academic degree	
		doctor of science	candidate of science
Total	**6451**	**723**	**1529**
of which			
government sector	2879	521	961
business enterprise sector	2778	87	269
higher education sector	794	115	299

3.11. RESEARCHERS WHO WORKED ABROAD, BY PURPOSE OF DEPARTURE: 2008



3.12. DISTRIBUTION OF RESEARCHERS WHO WORKED ABROAD, BY FIELD OF SCIENCE: 2008



3.13. NUMBER OF RESEARCHERS, WHO WORKED ABROAD, BY DURATION OF STAYING ABROAD AND BY SECTOR OF PERFORMANCE: 2008

(persons)

	Number of researchers, who worked abroad	Of them staying abroad				Of them researchers still working abroad
		less then 3 months	from 3 up to 6 months	from 6 up to 12 months	1 year and longer	
Total	**6451**	**6413**	**21**	**11**	**6**	**16**
of which						
government sector	2879	2863	10	4	2	7
business enterprise sector	2778	2776	1	–	1	1
higher education sector	794	774	10	7	3	8

3.14. DISTRIBUTION OF RESEARCHERS, WHO WORKED ABROAD, BY PURPOSE OF DEPARTURE AND FIELD OF SCIENCE: 2008

(persons)

	Total	Of which					
		natural sciences	engineering sciences	medical sciences	agricultural sciences	social sciences	humanities
Number of researches, who worked abroad	**6451**	**1526**	**4058**	**226**	**220**	**260**	**161**
with academic degree							
doctor of science	723	309	246	61	35	37	35
candidate of science	1529	517	675	87	68	93	89
with the purpose							
lecturing, giving consultations	20	9	7	4	–	–	–
performing joint research, projects	1793	481	1240	21	21	27	3
scientific work in foreign organizations	119	31	38	3	–	4	43
studies, traineeship	232	58	101	33	21	16	3
take part in conference, etc.	2683	807	1327	154	150	138	107
other	1604	140	1345	11	28	75	5

3.15. DISTRIBUTION OF RESEACHERS, WHO WORKED ABROAD, BY COUNTRY AND FIELD OF SCIENCE: 2008

(persons)

	Number of researchers, who worked abroad	Of which					
		natural sciences	engineering sciences	medical sciences	agricultural sciences	social sciences	humanities
Total	**6451**	**1526**	**4058**	**226**	**220**	**260**	**161**
of which							
Armenia	13	3	5	4	–	1	–
Austria	52	23	19	3	2	5	–
Azerbaijan	15	1	13	–	–	1	–
Belgium	22	10	10	1	–	1	–
Bulgaria	13	5	5	1	–	1	1
China	203	19	164	–	7	13	–
Czech Republic	46	14	22	3	4	2	1
Estonia	22	5	14	–	–	3	–
Finland	18	8	8	2	–	–	–
France	81	38	36	3	1	1	2
Germany	268	92	142	11	8	11	4
India	16	2	13	–	–	1	–
Iran	19	6	12	1	–	–	–
Italy	83	36	30	6	–	11	–
Hungry	21	11	5	2	–	3	–
Kazakhstan	78	5	51	2	–	19	1

Finished

	Number of researchers, who worked abroad	Of which					
		natural sciences	engineering sciences	medical sciences	agricultural sciences	social sciences	humanities
Korea, Republic	46	7	35	4	–	–	–
Latvia	81	23	44	1	5	2	6
Lithuania	128	40	47	8	13	–	20
Moldova, Republic	20	4	3	2	–	6	5
Poland	169	54	47	14	29	8	17
Portugal	2	–	2	–	–	–	–
Russia	3868	787	2702	103	102	114	60
Slovakia	12	1	8	1	2	–	–
Spain	28	16	7	4	–	1	–
Syrian Arab Republic	7	–	7	–	–	–	–
Sweden	37	12	19	5	–	–	1
Switzerland	55	31	15	5	1	3	–
Turkey	17	7	6	3	–	1	–
United Arab Emirates	20	2	18	–	–	–	–
Venezuela	43	7	30	–	–	6	–
Vietnam	18	5	13	–	–	–	–
Other	930	252	506	37	46	46	43

4

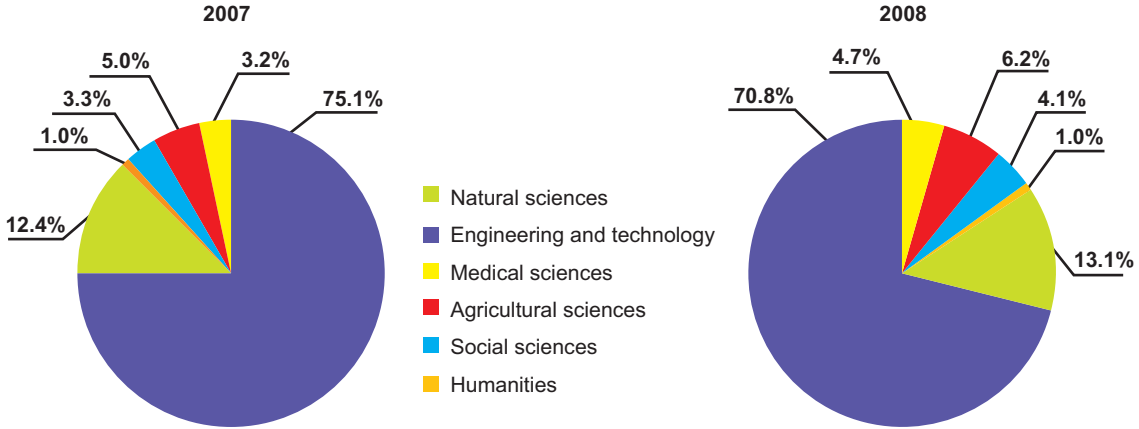
RESEARCH AND DEVELOPMENT EXPENDITURE

4.1. DOMESTIC EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT

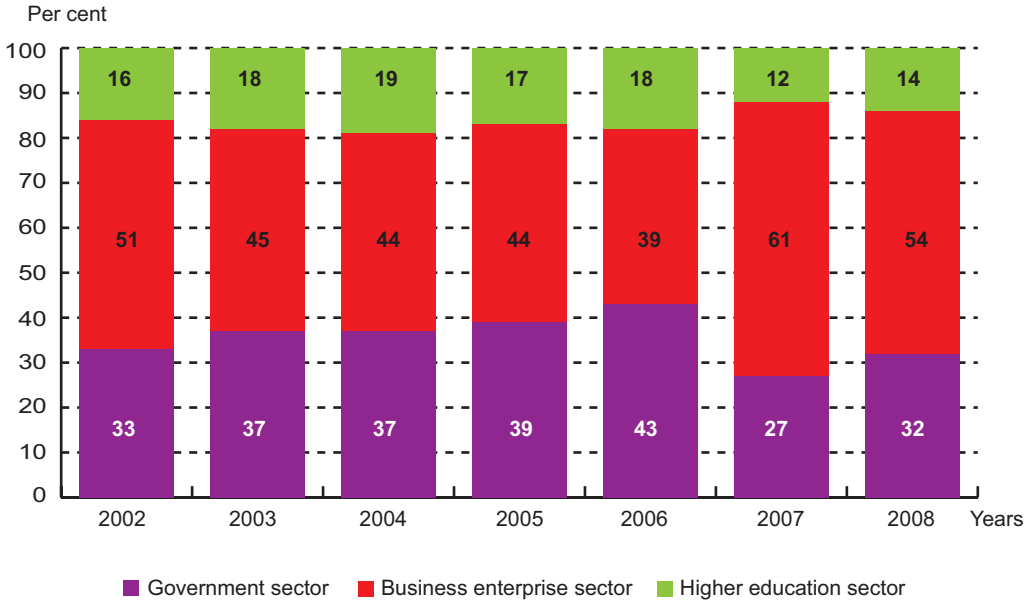
	2002	2003	2004	2005	2006	2007	2008
At current prices, *billion roubles*	162	224	314	441	524	935	962
At constant prices of 1995, *billion roubles*	1127	1188	1359	1608*	1721	2741	2323
As per cent of DGP	0.62	0.61	0.63	0.68*	0.66	0.97	0.75

** Revised.*

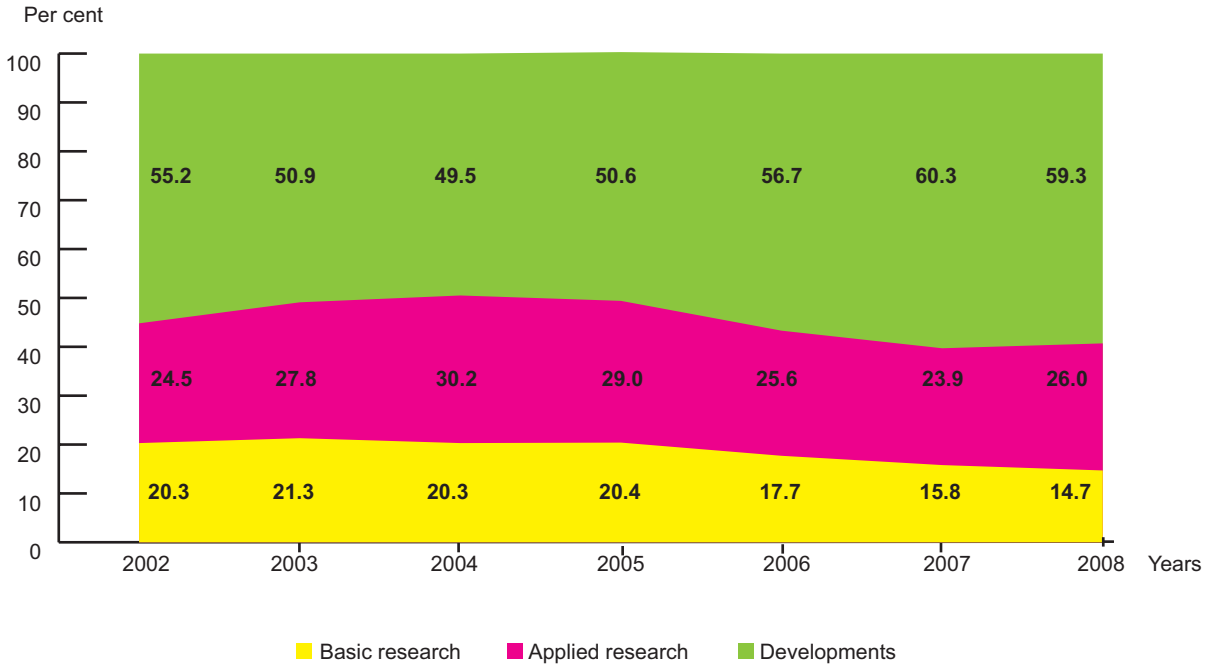
4.2. STRUCTURE OF DOMESTIC EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT, BY FIELD OF SCIENCE



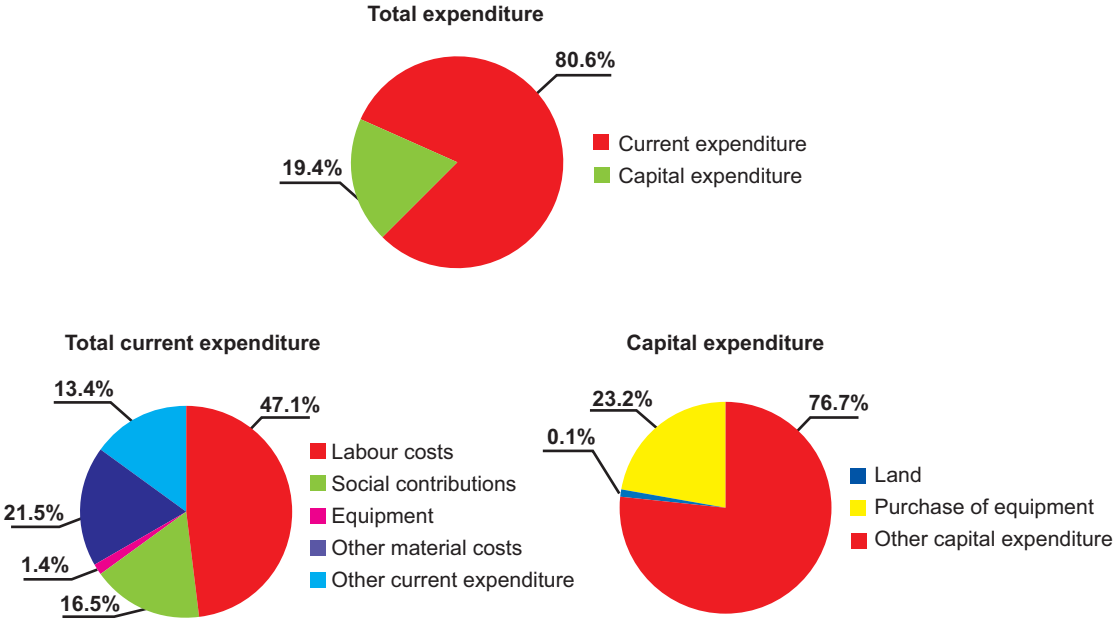
4.3. DOMESTIC EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT, BY SECTOR OF PERFORMANCE



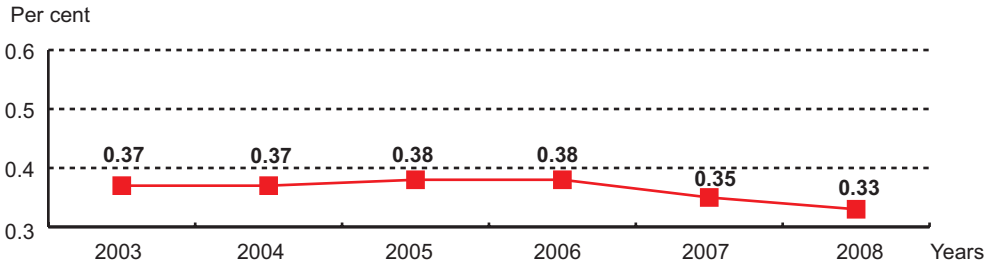
4.4. STRUCTURE OF CURRENT DOMESTIC EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT, BY TYPE OF ACTIVITY



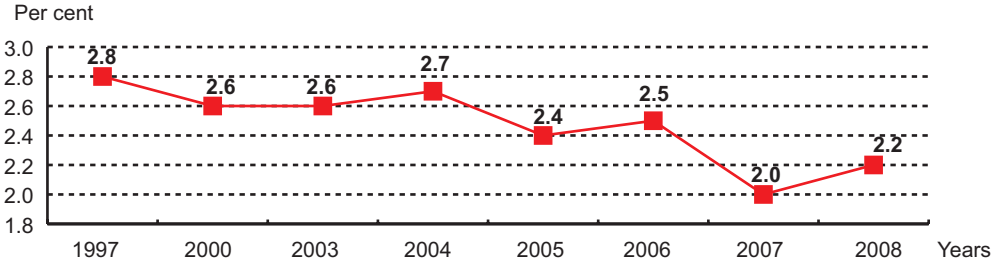
4.5. DOMESTIC EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT, BY TYPE OF EXPENDITURE: 2008



4.6. SHARE OF REPUBLICAN BUDGET APPROPRIATIONS FOR SCIENCE IN GROSS DOMESTIC PRODUCT



4.7. SHARE OF REPUBLICAN BUDGET APPROPRIATIONS FOR SCIENCE IN BUDGET EXPENDITURE



4.8. SOURCES OF FUNDS FOR DOMESTIC EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT

(per cent)

	2003	2004	2005	2006	2007	2008
Domestic expenditure on scientific research and development	**100**	**100**	**100**	**100**	**100**	**100**
of which						
own funds	12.73	11.93	12.41	9.84	38.63	27.43
budget funds*	48.63	51.49	58.68	64.22	45.65	53.10
off-budget funds	12.09	10.51	5.08	1.94	0.93	1.10
government sector funds	10.68	10.05	8.69	5.62	2.88	3.60
business enterprise sector funds	8.37	8.35	8.81	10.81	6.52	9.07
higher education sector funds	0,04	0.05	0.08	0.12	0.05	0.09
private non-profit sector funds	–	–	–	–	0.08	0.09
foreign sources of funds	7.46	7.62	6.25	6.85	5.26	5.52

** Include budget allocations to maintenance of higher education institutions.*

5

RESEARCH AND DEVELOPMENT MATERIAL AND TECHNICAL BASIS

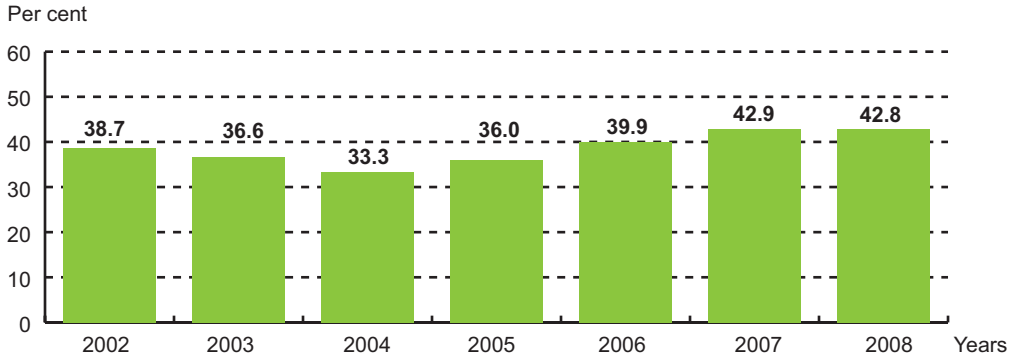
5.1. AVERAGE ANNUAL VALUE OF SCIENTIFIC RESEARCH AND DEVELOPMENT FIXED ASSETS

(million roubles)

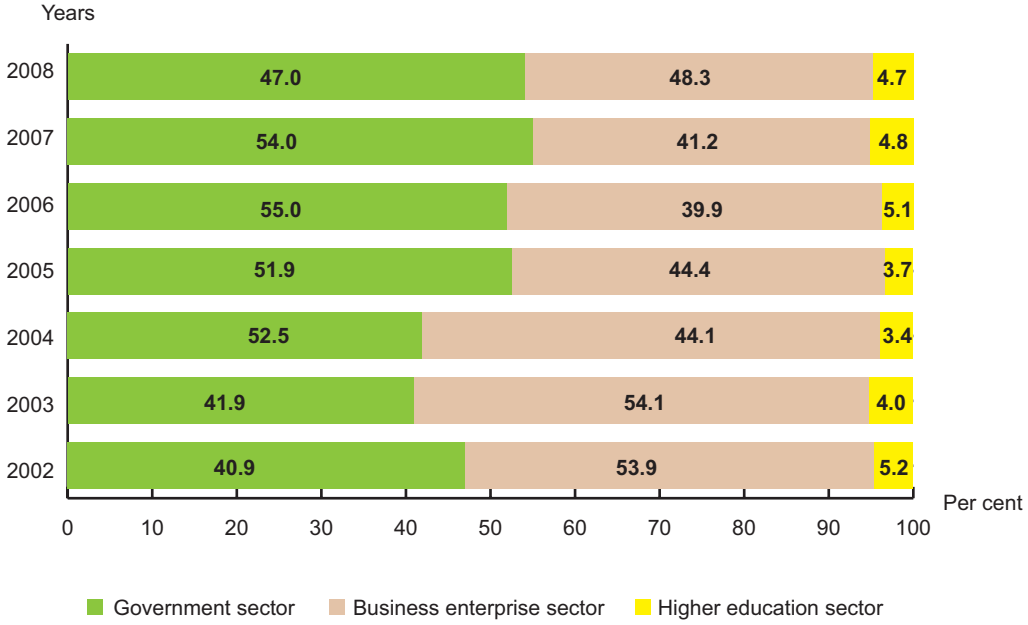
	2002	2003	2004	2005	2006	2007	2008
At current prices	451 735	603 247	924 260	1 123 468	1 192 519	1 528 484	1 824 003
At constant prices of 1990	476	480	602	641	517	759*	806

* *Revised.*

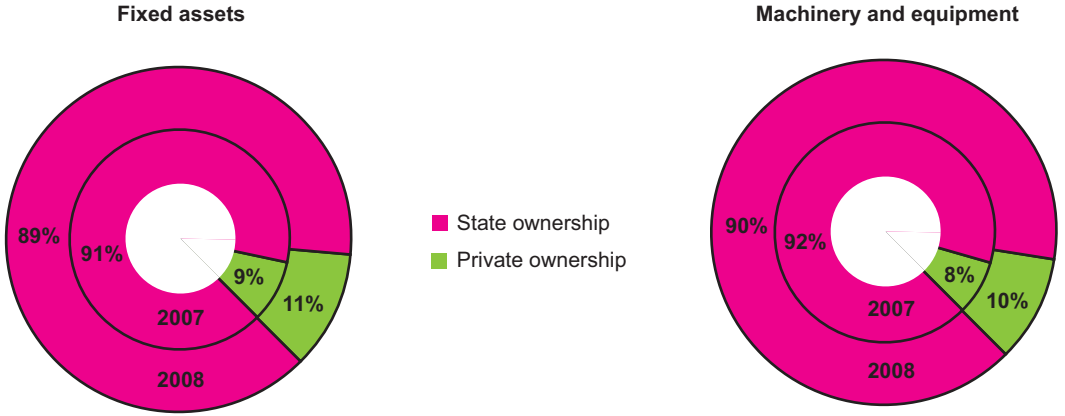
5.2. SHARE OF MACHINERY AND EQUIPMENT IN TOTAL SCIENTIFIC RESEARCH AND DEVELOPMENT FIXED ASSETS



5.3. STRUCTURE OF AVERAGE ANNUAL RESEARCH AND DEVELOPMENT FIXED ASSETS, BY SECTOR OF PERFORMANCE



5.4. SCIENTIFIC RESEARCH AND DEVELOPMENT FIXED ASSETS, BY OWNERSHIP



6

RESEARCH AND DEVELOPMENT EFFECTIVENESS

6.1. FILED PATENT APPLICATIONS AND REGISTERED SUBJECTS OF INTELLECTUAL PROPERTY

(items)

	2003	2004	2005	2006	2007	2008
Applications for inventions filed	**1259**	**1265**	**1340**	**1377**	**1662**	**1730**
of which by						
national applicants	1082	1065	1166	1188	1405	1510
foreign applicants	177	200	174	189	257	220
Patents for inventions registered	**1030**	**861**	**955**	**1130**	**1379**	**1252**
of which by						
national applicants	862	748	811	1015	1238	1139
foreign applicants	168	113	144	115	141	113
Applications for production prototypes filed	**121**	**196**	**197**	**241**	**247**	**232**
of which by						
national applicants	69	118	109	98	98	119
foreign applicants	52	78	88	143	149	113
Patents for production prototypes registered	**43**	**171**	**204**	**239**	**193**	**197**
of which by						
national applicants	34	113	122	102	73	105
foreign applicants	9	58	82	137	120	92
Applications for utility models filed	**551**	**655**	**853**	**901**	**940**	**967**
of which by						
national applicants	529	618	827	863	888	910
foreign applicants	22	37	26	38	52	57

Finished

	2003	2004	2005	2006	2007	2008
Patens for utility models registered	**484**	**540**	**731**	**830**	**859**	**860**
of which by						
national applicants	468	517	708	799	815	812
foreign applicants	16	23	23	31	44	48
Applications for trade marks filed	**2852**	**3437**	**3556**	**4396**	**5075**	**4721**
of which by						
national applicants	1972	2410	2510	2797	3666	3487
foreign applicants	880	1027	1046	1599	1409	1234
Trade marks registered	**1925**	**2040**	**1800**	**2130**	**2110**	**2460**
of which by						
national applicants	1151	1314	1101	1348	1404	1551
foreign applicants	774	726	699	782	706	909

6.2. DISTRIBUTION OF REGISTERED PATENTS FOR INVENTION, BY SECTION OF THE INTERNATIONAL PATENT CLASSIFICATION

(items)

Sections of the International Patent Classification	2003	2004	2005	2006	2007	2008
Total	**1030**	**861**	**955**	**1130**	**1379**	**1252**
of which						
Human necessities (A)	263	213	226	307	378	330
Various technological processes (B)	160	156	164	192	195	190
Chemistry, metallurgy (C)	234	174	239	209	279	310
Textiles, paper (D)	11	24	9	13	14	12
Construction, mining (E)	57	52	69	77	99	80
Mechanical engineering, lighting, heating, engines and pumps, blasting (F)	99	58	70	124	122	81
Physics (G)	157	140	141	148	222	180
Electricity (H)	49	44	37	60	70	69

6.3. ADVANCED PRODUCTION TECHNOLOGIES, BY GROUP: 2008

	Number of advanced production technologies developed	Of which		
		new in the country	new abroad	fundamentally new
Total	**375**	**318**	**52**	**5**
of which by technology group				
design and engineering	19	13	6	–
manufacture, machining and assembling	63	50	12	1
automated material handling	–	–	–	–
automatic control equipment	9	7	2	–
communication and control	–	–	–	–
production information system	1	1	–	–
integrated administration and control	11	11	–	–
other	272	236	32	4

6.4. USE OF ADVANCED PRODUCTION TECHNOLOGIES, BY GROUP: 2008

	Number of advanced production technologies used	Of which those used for, years				Number of inventions in technologies used
		10 and more	from 6 up to 9	from 1 up to 5	in the reporting year	
Total	**21 370**	**7025**	**3857**	**8303**	**2185**	**629**
of which by technology group						
design and engineering	1301	245	286	662	108	15
manufacture, machining and assembling	9841	4512	1320	3018	991	105
automated material handling	138	73	19	32	14	–
automatic control equipment	1041	375	203	347	116	16
communication and control	6996	1477	1574	3266	679	14
production information systems	220	54	91	86	19	1
integrated administration and control	221	80	30	86	25	–
other	1612	209	364	806	233	478

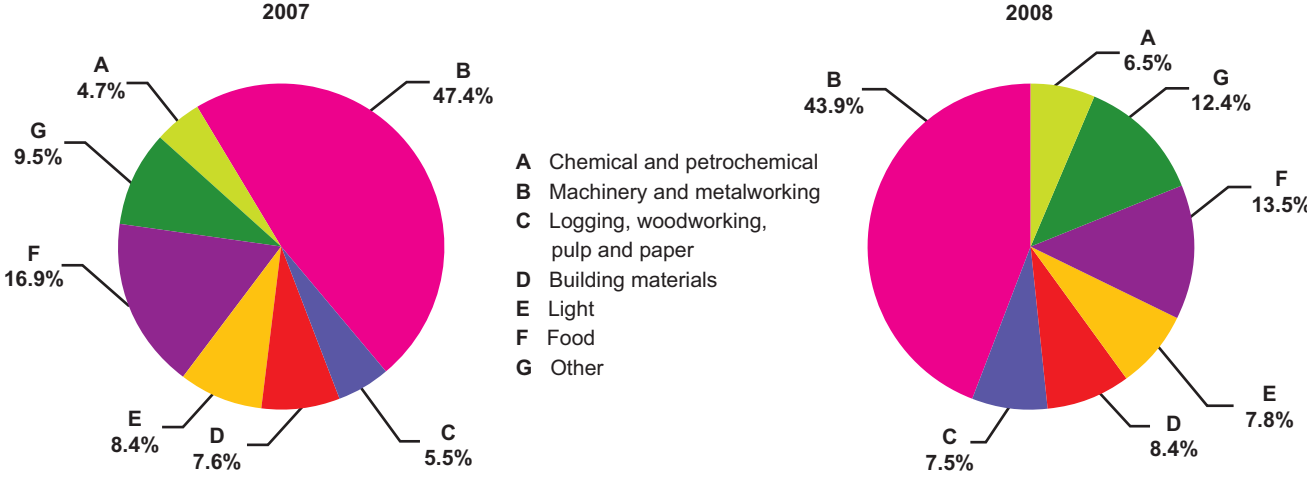
7

TECHNOLOGICAL INNOVATIONS

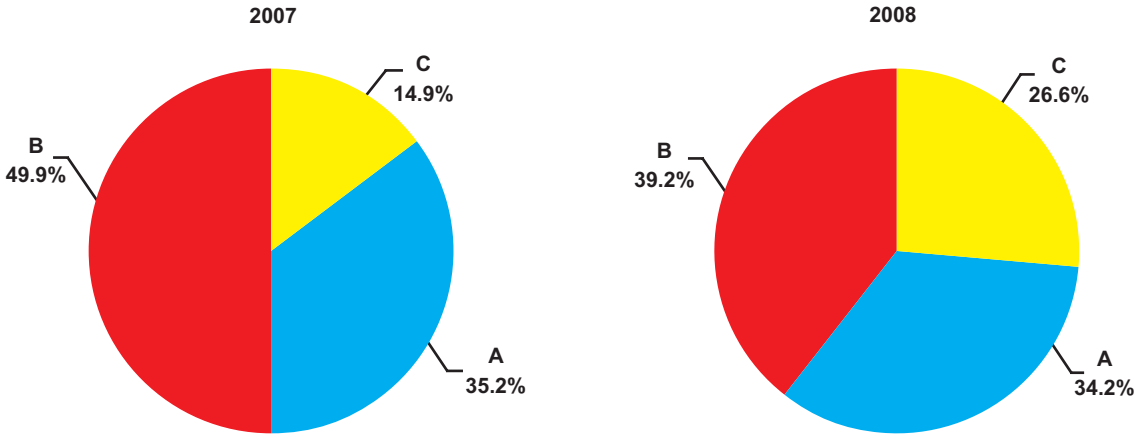
7.1. MAIN INDICATORS OF INNOVATION ACTIVITY, BY INDUSTRIAL ENTERPRISES

	2007	2008
Number of industrial enterprises engaged in innovation activity	380	371
Level of innovation activity, per cent	17.8	17.6
Expenditure on technological innovations, million rubles	2785593.0	2947572.0
Value of innovation products shipped, million rubles	10441626	13410197
Share of innovation products total output shipped, per cent	14.8	14.2

7.2. ENTERPRISES ENGAGED IN INNOVATION ACTIVITY, BY INDUSTRY

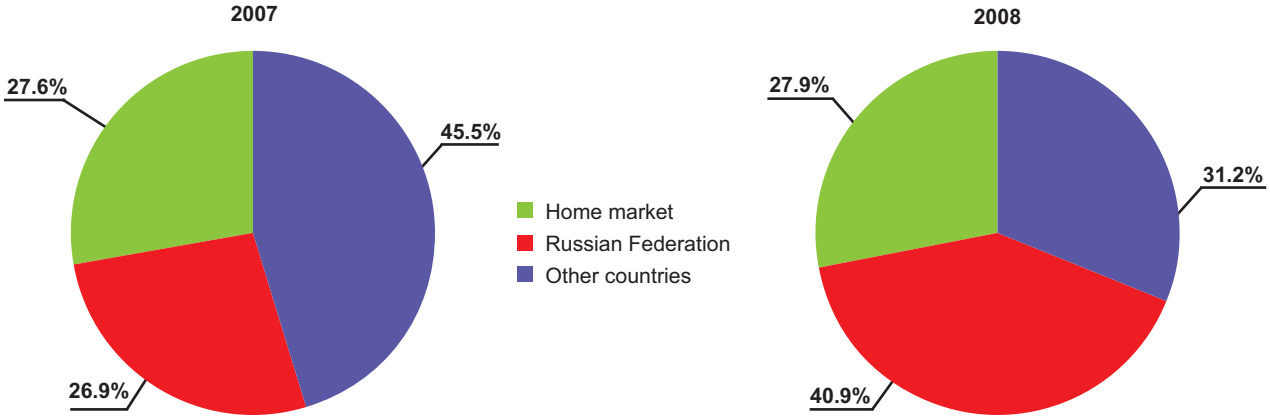


7.3. VOLUME OF SHIPPED INNOVATION PRODUCTS, BY INNOVATION LEVEL

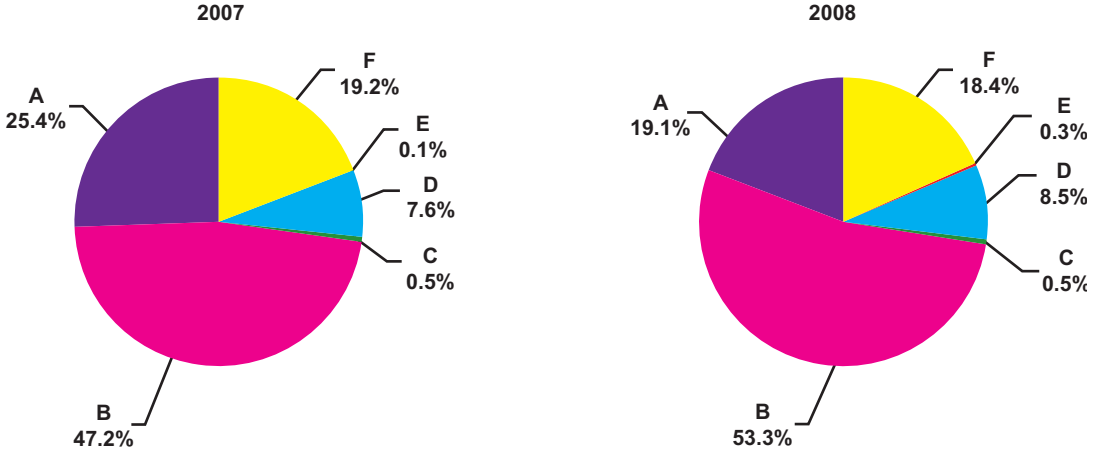


A Products newly introduced or technologically changed within the three recent years
B Products improved within the three recent years
C Other innovation products

7.4. VOLUME OF SHIPPED INNOVATION PRODUCTS, BY MARKETS

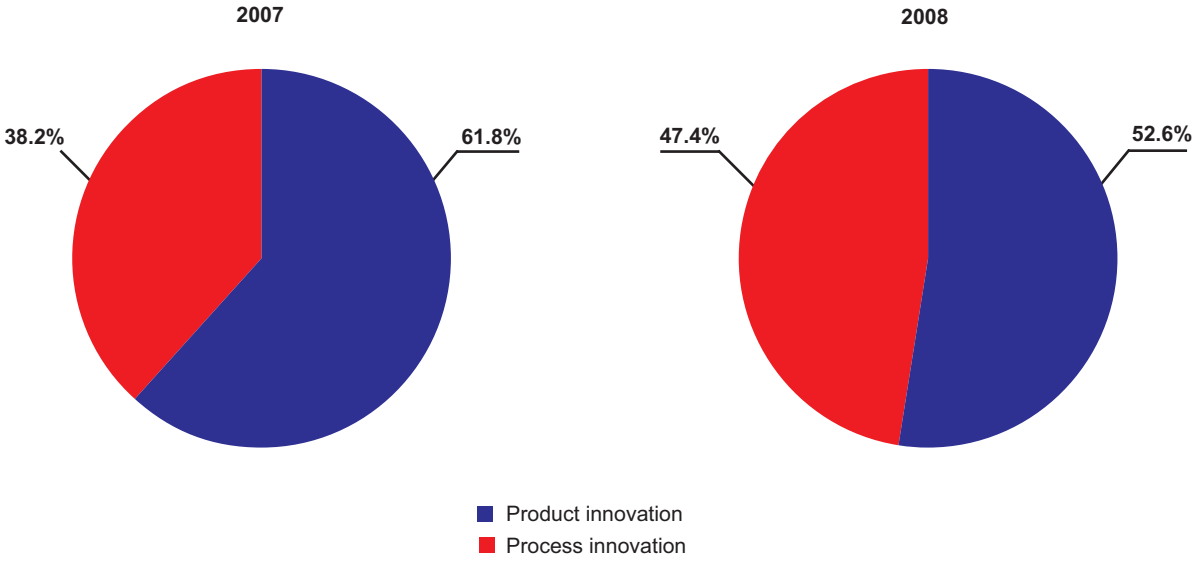


7.5. STRUCTURE OF EXPENDITURE ON TECHNOLOGICAL INNOVATIONS, BY TYPE OF INNOVATION ACTIVITY



A Research and development of new products and new production processes
B Acquisition of machinery and equipment related to technological innovations
C Acquisition of new technologies
D Industrial design and other preproduction processes to produce new products
E Marketing research
F Other expenditure on technological innovations

7.6. STRUCTURE OF EXPENDITURE ON TECHNOLOGICAL INNOVATIONS, BY TYPE OF INNOVATION

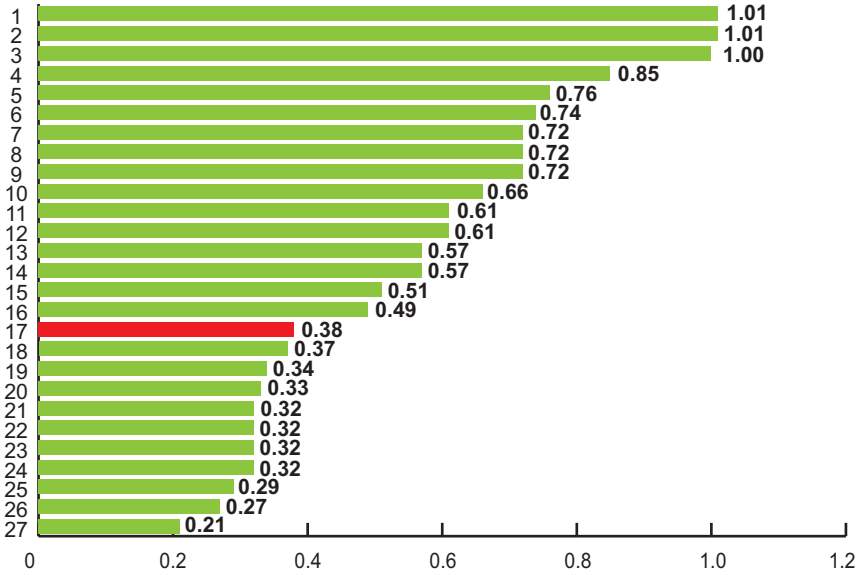


8

INTERNATIONAL COMPARISONS

8.1. BUDGETARY APPROPRIATIONS FOR SCIENTIFIC RESEARCH AND DEVELOPMENT IN THE REPUBLIC OF BELARUS AND EUROPEAN COUNTRIES AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT: 2006

(per cent)



1. Finland
2. France[2]
3. Spain
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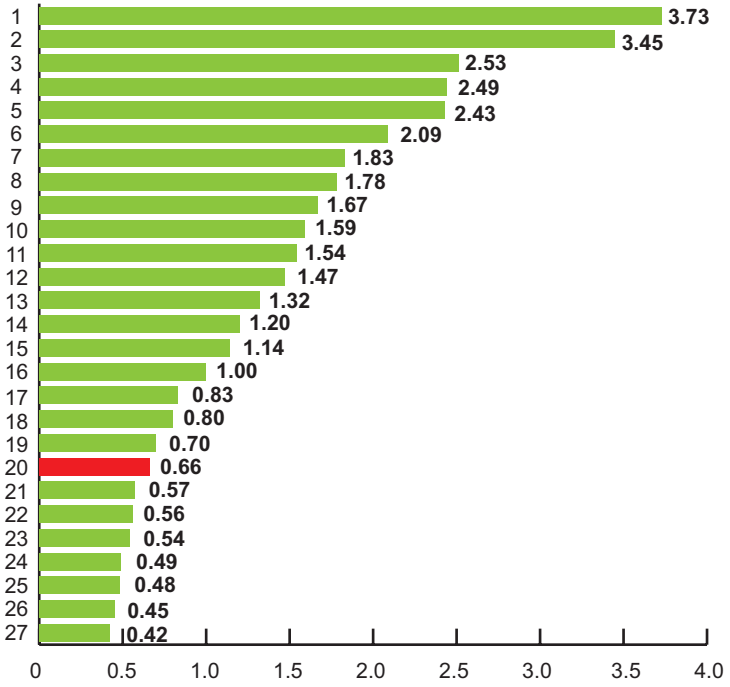
7. Portugal
8. Denmark
9. Netherlands[2]
10. Austria[2]
11. Italy
12. Belgium
13. Slovenia
14. Czech Republic
15. Estonia[1]
16. Ireland
17. Republic of Belarus
18. Hungary
19. Luxembourg
20. Lithuania
21. Cyprus
22. Greece
23. Poland
24. Romania
25. Latvia
26. Slovakia
27. Malta

[1] Provisional data.
[2] Estimated data.

Source: Science, Technology and Innovation in Europe. Statistical Pocketbook — Edition 2009. Luxembourg: Office for Official Publications of the European Communities, 2009.

8.2. DOMESTIC EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT IN THE REPUBLIC OF BELARUS AND EUROPEAN COUNTRIES AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT: 2006

(per cent)



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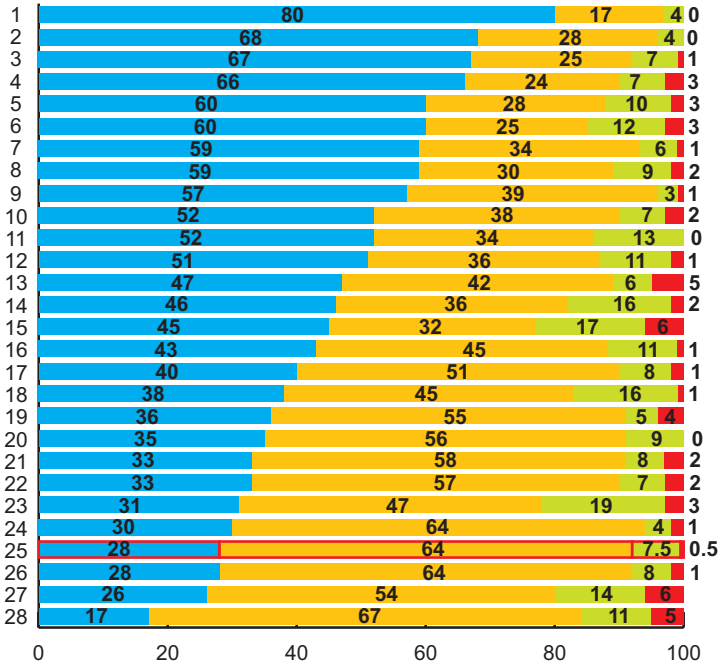
17. Portugal
18. Lithuania
19. Latvia
20. Republic of Belarus
21. Greece
22. Poland
23. Malta
24. Slovakia
25. Bulgaria
26. Romania
27. Cyprus

Sources: Science, Technology and Innovation in Europe. Statistical Pocketbook — Edition 2009. Luxembourg: Office for Official Publications of the European Communities, 2009.

8.3. STRUCTURE OF EXPENDITURE ON SCIENTIFIC RESEARCH AND DEVELOPMENT IN THE REPUBLIC OF BELARUS AND EUROPEAN COUNTRIES, BY SOURCE OF FINANCING: 2006

(per cent)



1. Luxembourg
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8. Ireland[1]
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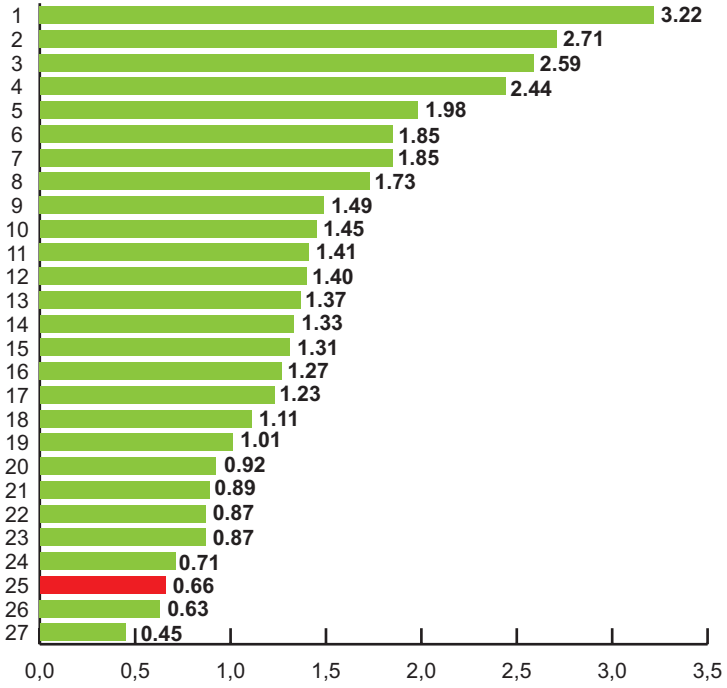
12. Netherlands
13. Spain
14. Austria[2]
15. United Kingdom
16. Hungary
17. Italy
18. Estonia[1]
19. Portugal
20. Slovakia
21. Latvia
22. Poland
23. Greece
24. Romania
25. Republic of Belarus
26. Bulgaria
27. Lithuania
28. Cyprus

[1] Provisional data.
[2] Estimated data.

Sources: Science, Technology and Innovation in Europe. Statistical Pocketbook — Edition 2009. Luxembourg: Office for Official Publications of the European Communities, 2009.

8.4. PERSONNEL ENGAGED IN SCIENTIFIC RESEARCH AND DEVELOPMENT IN THE REPUBLIC OF BELARUS AND EUROPEAN COUNTRIES AS A PERCENTAGE OF THOSE EMPLOYED IN THE ECONOMY: 2008

(per cent)



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23. Portugal
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State Committee on Science and Technology of the Republic of Belarus
1, Academicheskaya St., 220072, Minsk
Phone/fax: (+375 17) 210-01-46

State Institution “Belarusian Institute of System Analysis and Information Support
to Scientific and Technical Sphere” (SI “BelISA”)
7, Pobediteli Ave., 220004, Minsk
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