

BASIC INDICATORS OF RESEARCH AND DEVELOPMENT – ANALYTICAL PART

I. Number of reporting units performing R&D in the Czech Republic

There were 1 961 reporting units (RU) in the Czech Republic in 2004 that carried out research and development (R&D) as the main (299 responding units in NACE 73) or side (1 662 RU) activity. Number of reporting units performing R&D in the Czech Republic increased by 6,2 % in 2004 compared to the Year 2003, when only 1 846 R&D reporting units were recorded or weighted using mathematical and statistical methods as non-response. Since 1995, when the measurement of R&D indicators in the Czech Republic was for the first time fully in line with the international standards set in Frascati manual, the number of R&D reporting units rises each year.

Figure 1.1 No. of responding units (RU) performing R&D in the Czech Republic by size groups; 1995-2004

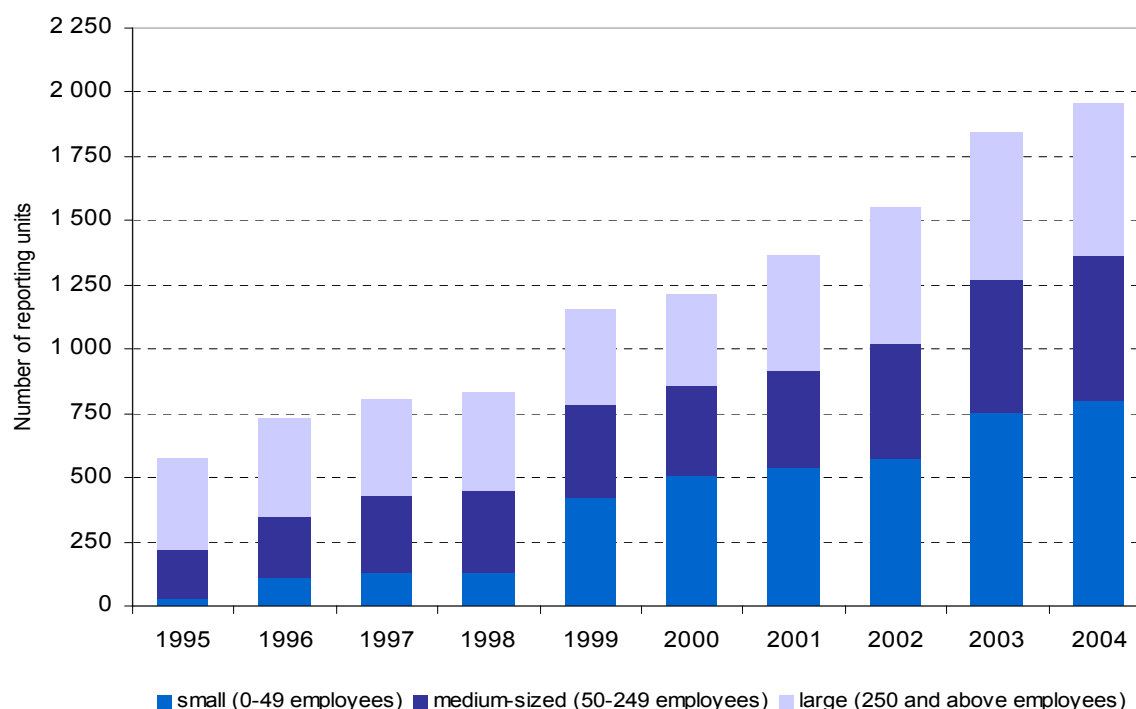


Table 1.1 Number of reporting units performing R&D according to their size group, 1995-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Small (0- 49 employees)	32	108	128	132	422	510	535	570	755	802
<i>of which NACE 73</i>	19	21	24	27	64	98	109	156	166	165
Medium (50-249 employees)	183	242	303	319	363	350	381	450	518	562
<i>of which NACE 73</i>	100	97	100	92	92	91	103	103	102	100
Large (250 and more employees)	355	380	376	387	371	352	446	531	573	597
<i>of which NACE 73</i>	24	23	21	19	17	17	30	35	33	34
Total	570	730	807	838	1 156	1 212	1 362	1 551	1 846	1 961
<i>of which NACE 73</i>	143	141	145	138	173 ¹⁾	206	242	294	301	299

Figure 1.1 shows, that the number of reporting units performing R&D has increased more than three times since 1995. This growth was caused mainly by the transformation of large reporting units into the smaller ones (during the same period, the number of R&D employees ' in headcount' has increased from 47 500 R&D personnel in 1995 to 60 148 R&D personnel in 2004, i.e. the overall rise in number of R&D personnel by 27 % since 1995). Methodological changes in the statistical survey on R&D and regular updating of the database of reporting units carrying out R&D were other reasons for this recorded growth. Since 2001, mathematical and statistical methods are used for estimations of non-response units.

I.1 Reporting units performing R&D by the sectors of performance

In 2004, the highest number of R&D reporting units in the Czech Republic was recorded in the Business enterprise sector. Total number of units engaged in research and development activities in this sector has reached 1 562 units, i.e. 79,7 % of all units carrying out research and development in the Czech Republic in 2004. From this number, 192 R&D units performed research and development activities as their main economical activity (units from business enterprise sector belonging to the NACE 73). The second most important sector in the Czech Republic measured by number of R&D units has been government sector with the share of 9,8 % R&D responding units (192 units, from which 103 units belong to NACE 73) in total number of recorded R&D units in 2004. In two outstanding sectors of performance the same shares were following: 7,3 % in higher education sector and 3,2 % in private non-profit sector.

Table 1.2 Number of R&D units in the Czech Republic in particular sectors in 2003 and 2004

SECTOR	2003		2004		Index 04/03 No. of R&D units
	No. of R&D units	%	No. of R&D units	%	
Business enterprise sector	1 280	69,3	1 562	79,7	1,2203
<i>of which NACE 73</i>	98	32,6	192	64,2	1,9592
Government sector	191	10,3	192	9,8	1,0052
<i>of which NACE 73</i>	101	33,6	103	34,4	1,0198
Higher education sector	136	7,4	144	7,3	1,0588
<i>of which NACE 73</i>	0	0,0	0	0,0	0,0000
Private non-profit sector	239	12,9	63	3,2	0,2636
<i>of which NACE 73</i>	102	33,9	4	1,3	0,0392
Total	1 846	100,0	1 961	100,0	1,0623
<i>of which NACE 73</i>	301	100,0	299	100,0	0,9934

Methodological note: The definition of private non-profit sector was adjusted in 2004 according to the methodology of Frascati manual.

I.2 R&D units by the main field of science and technology (FOS)

The largest number of reporting units according to the fields of science was registered in 2004 in engineering and technology (59,8 %), where the crucial role-plays business enterprise sector. Engineering and technology is the most important field of science and technology (FOS) for research and development in the Czech Republic. The second most important field of science measured by the number of responding units carrying out R&D activities was natural science, where the important role-plays government sector. The lowest share of reporting units was recorded in the field of social sciences (4,6 %) followed by low shares in agricultural and medical sciences.

Table 1.3 No. of R&D units in the Czech Republic in main field of science (FOS) in 2003 and 2004

FIELDS OF SCIENCE	2003		2004		Index 04/03 No. of R&D units
	No. of R&D units	%	No. of R&D units	%	
Natural sciences	295	16,0	347	17,7	1,1763
Engineering and technology	1 117	60,5	1 173	59,8	1,0501
Medical sciences	104	5,6	112	5,7	1,0769
Agricultural sciences	95	5,1	92	4,7	0,9684
Social sciences	84	4,6	110	5,6	1,3095
Humanities	151	8,2	127	6,5	0,8411
Total	1 846	100,0	1 961	100,0	1,0623

I.3 R&D units by regions (at NUTS 3 level)

In 2004, the largest number of R&D reporting units was recorded in the capital city – Prague (28,4 %). The lowest number of subjects carrying out research and development was recorded in Karlovarský kraj (1,0 %). The highest number of reporting units carrying out R&D is mainly concentrated in Prague due to a high number of here registered universities and government research institutions but also enterprises performing R&D.

Table 1.4 No. of R&D units in the Czech Republic in regions (at NUTS 3 level) in 2003 and 2004

Region (NUTS 3)	2003		2004		Index 04/03 R&D units
	No. of R&D units	%	No. of R&D units	%	
Capital city Prague	522	28,3	557	28,4	1,0670
Středočeský kraj	149	8,1	164	8,4	1,1007
Jihočeský kraj	81	4,4	89	4,5	1,0988
Plzeňský kraj	71	3,8	73	3,7	1,0282
Karlovarský kraj	18	1,0	20	1,0	1,1111
Ústecký kraj	78	4,2	70	3,6	0,8974
Liberecký kraj	74	4,0	74	3,8	1,0000
Královéhradecký kraj	96	5,2	98	5,0	1,0208
Pardubický kraj	86	4,7	91	4,6	1,0581
Vysočina	56	3,0	62	3,2	1,1071
Jihomoravský kraj	277	15,0	292	14,9	1,0542
Olomoucký kraj	86	4,7	97	4,9	1,1279
Zlínský kraj	96	5,2	114	5,8	1,1875
Moravskoslezský kraj	156	8,5	160	8,2	1,0256
Total	1 846	100,0	1 961	100,0	1,0623

