

Progress Report on the National Research Programme I (for years 2004-2005)

1. Introduction

The National Research Programme I (hereinafter referred to as “NRP I”) was prepared using the draft National Programme of Targeted Research and Development (NPTR&D), which was based upon the National Research and Development Policy of the Czech Republic (NR&DP) approved by the Government Resolution No. 16/2000. This national programme was aimed at providing resources for funding research identified by independent experts to be crucial for economic and social development of the Czech Republic and being solved in our country at a superior level. The Government took cognizance of the original draft programme (i.e. NPTR&D) by its Resolution No. 517/2002 and imposed upon the Minister of Education, Youth and Sport to submit to the Government, in collaboration with the competent vice-premier and heads of other central bodies of public administration, draft NRP I based on it. This new draft should harmonise the original document with newly adopted laws and regulations and assumed international commitments, namely Act No. 130/2002 Coll. on Support of Research and Development, Government Regulation No. 267/2002 Coll. on Research and Development Information System and Government Regulation No. 461/2002 Coll. on Targeted Support of Research and Development. The changes in external conditions have occurred especially as a result of the Czech Republic being integrated step by step into the European Research Area within preparations for its accession to EU and preparation of the Memorandum on Understanding (MoU) between the European Communities and the Czech Republic on association of the Czech Republic to the Sixth Framework Programme for Research, Technological Development and Demonstration Activities for 2001 – 2006.

The newly adopted act on support of research and development defines the National Research Programme as a set of programmes tackling issues of both basic and applied research through projects. At the same time, the act holds the Ministry of Education, Youth and Sport (MoEYS) responsible for preparation and implementation of research priorities within this national programme.

The draft National Research Programme I, produced by the Ministry of Education, Youth and Sport in co-operation with the Research and Development Council (R&DC) on the basis of Government Resolution No. 517/2002, was adopted by the Government Resolution No. 417/2003 to be launched in 2004, along with accelerated preparations of the National Research Programme II (NRP II).

The thematic content of NRP I was taken largely from NPTR&D and in its parts (thematic and cross-sectional programmes) reflects then applicable national research and development policy. This thematic content was defined by experts using the “technology foresight“ method within a contract awarded by MoEYS to the Technology Centre of the Academy of Sciences of the Czech Republic.

2. Objectives of the National Research Programme and definition of its thematic content

Main objectives of the National Research Programme I were defined by a coordination group specially established by the Minister of Education, Youth and Sport in 2000 in order to prepare this national programme. It was composed of representatives from various public administration bodies, professional and user public, as well as industrial sector. This coordination group defined four main objectives of NRP I as follows:

- I to improve performance and efficiency of the Czech research, thus enhancing its contribution to economy and society; concentrate sources of support and research capacities on fewer selected issues considered by broad public to be acute, if there are sufficient qualifications for their solution and conditions for the attained research results to be used in practice;
- II to ensure a dynamic renewal and development of research capacities in the Czech Republic using all opportunities for international cooperation in research;
- III to strengthen and advance ties between research and development and community and relieve community fears, if any, about undesirable impacts of research and development;
- IV to improve professionalism of research work and increase applicability of research results in practice.

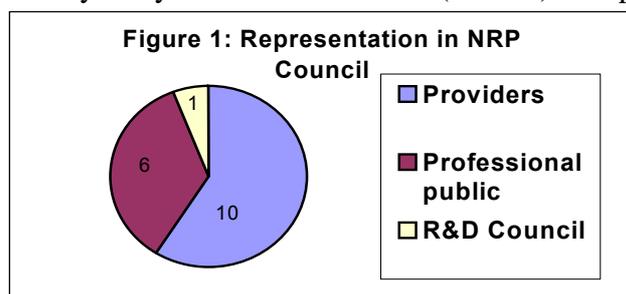
The content itself of the individual thematically oriented parts of NRP I was determined using the technology foresight method. In thematically oriented panels, the experts decided upon those priority directions being considered the most crucial in their eyes for the Czech Republic, while attaining superior results here. To a less extent, the same methodology was also applied to preparation of methodical papers concerning the NRP I control. The Technology Centre of the Academy of Sciences of the Czech Republic which was implementing the contract for determination of research priorities, made the selection of experts for the panels. This selection, however, was insufficient in terms of a balance between the representatives of ministries acting in the role of providers within this national programme and the professional public. This led to a series of adaptations of the thematic content within the amendment procedure between the departments to put more emphasis on departmental responsibility for research within NRP I.

3. Coordination and control

NRP I is coordinated at two levels by:

- a) the National Research Programme Council (hereinafter referred to as the “NRP Council”) being the advisory body to MoEYS that is entrusted with coordination of the National Research Programme I. The Council is governed by its Statute and Rules of Procedure approved generally by Resolution No. 417/2003. Tasks and aims of this Council are attached as Annex II to the above cited Government Resolution; and
- b) the Working Group for Coordination of NRP I ensuring the coordination of control of individual NRP I parts at the level of competent directors of divisions of respective providers.

As shown in Figure 1, NRP Council is composed of representatives of ministries and the Academy of Sciences of the Czech Republic (AS CR) acting in their role as providers, the advisory body to the Government (R&DC) and professional public. The Working Group for



Coordination of NRP I is composed of representatives of public administration, R&DC and professional public. This coordination structure is then followed by control structure at the provider's level. The control at the level of providers and below is not regulated by the above Government Resolution No. 417/2003 and so it is up to the provider to ensure

control over those parts of NRP I for which it is hold responsible.

The list of NRP I providers is shown in Table 1, including the programme's thematic structure. As shown in the table, both thematic and cross-sectional programmes (parts) were further divided into the so called sub-programmes.¹ Funds for NRP I were allocated up to the level of sub-programmes.

Table 1 Structure of the National Research Programme I

Thematic programmes (TPs)	Sub-programmes	Code in CRP	Provider
1. Quality of Life (TP1)	1. Population Health (TP1-DP1)	1A	Ministry of Health (MoH)
	2. Quality and Safe Nutrition (TP1-DP2)	1B	Ministry of Agriculture (MoA)
	3. Landscape and the Settlements of the Future (TP1-DP3) *	1C	Ministry of Environment (MoE)
	4. Environment and Natural Resources Protection (TP1-DP4)	1D	
2. Information Society (TP2)	1. Intelligent Systems for Decision Making, Control and Diagnostics (TP2-DP1)	1E	Academy of Sciences of the Czech Republic (AS CR)
	2. Information and Knowledge Management (TP2-DP2)		
	3. Communication Infrastructure and Technology (DP2-TP3)		
	4. Computer Modelling and Design of Systems and Processes (TP2-DP4)		
3. Competitiveness and Sustainable Growth (TP3)	1. Safe and economical transport (TP3-DP2)	1F	Ministry of Transport (MoT)
	2. Utilisation of Natural Resources (TP3-DP6)	1G	Ministry of Agriculture (MoA)
	3. Manufacturing Processes and Systems (TP3-DP1)	1H **	Ministry of Industry and Trade (POKROK) (MIT)
	4. Buildings and Constructions (TP3-DP3)		
	5. New Materials (TP3-DP4)		
	6. Rising Technologies (TP3-DP5)		
4. Energy for Economy and Society (TP4)	1. Safe and Efficient Nuclear Power (TP4-DP1)		
	2. Energy and Non-energy Use of Coal and Carbonaceous Raw Materials (TP4-DP2)		
	3. Rational Use of Energy and Renewable Energy Sources (TP4-DP3)	1I	Ministry of Environment (MoE)
5. Modern Society and its Transformations (TP5)	1. Performance-oriented, Safe and European Integrated Society and its International Relations (TP5-DP1)	1J	Ministry of Labour and Social Affairs (MLSA)
	2. Social Cohesion, Social Differentiation and National Identity (TP5-DP2)		

¹ Sub-programmes are parts of thematic or cross-sectional programmes of NRP I for which the funds are allocated in the draft programme approved by Government Resolution No. 417/2003 and which are controlled by one provider.

Cross-sectional Programmes (CPs)			
1. Human Resources for Research and Development (PP1)	1. Support of Young Research and Development Workers (PP1-DP1)	1K	Ministry of Education, Youth and Sport (MoEYS)
	2. Human Resources for Research (PP1-DP2). The sub-programme was not implemented.	1L	
2. Integrated Research	1. Research Centres (PP2-DP1)	1M	
	2. Research Information Infrastructure (PP2-DP2)	1N	
	3. Support of Targeted Research Projects (PP2-DP3)	1Q	Academy of Sciences of the Czech Republic (AS CR)
3. Regional and International Co-operation in Research	1. Regional Co-operation (PP3-DP1)	1P	Ministry of Education, Youth and Sport (MoEYS)
	2. International Co-operation Programmes (PP3-DP2)		

* MoA announced a public tender for the agricultural thematic section in this part of programme (1R).

** 1H is part of NRP I connecting two programmes (TP3 a TP 2). For further work and graphic presentation, this segment of NRP I will be handled as a sub-programme. Programmes 1E, 1J and 1P will be presented and processed similarly in the report.

The co-ordination between individual providers and their communication were satisfactory in the light of their low staffing level falling far below expectations from the period of preparation of the National Programme of Targeted Research and Development (NPTR&D). That's why no information unit for NRP I was created. Given the wide thematic spread of individual thematic and cross-sectional programmes, uniform administration and especially evaluation of different parts of this national programme would be difficult even at optimum staffing environment. Therefore, no single evaluation methodology was applied at the project level within NRP I as a whole.

Figure 2: Dates of meetings of the Working Group for Coordination of NRP I and the NRP Council

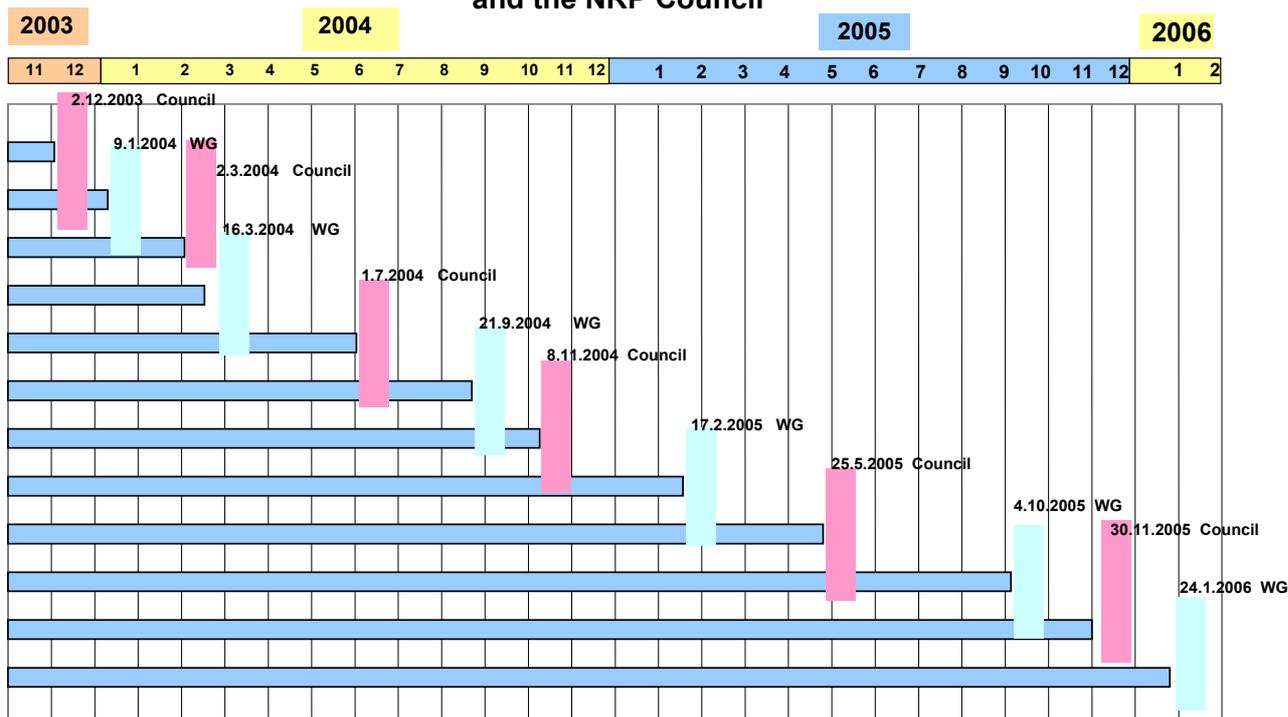
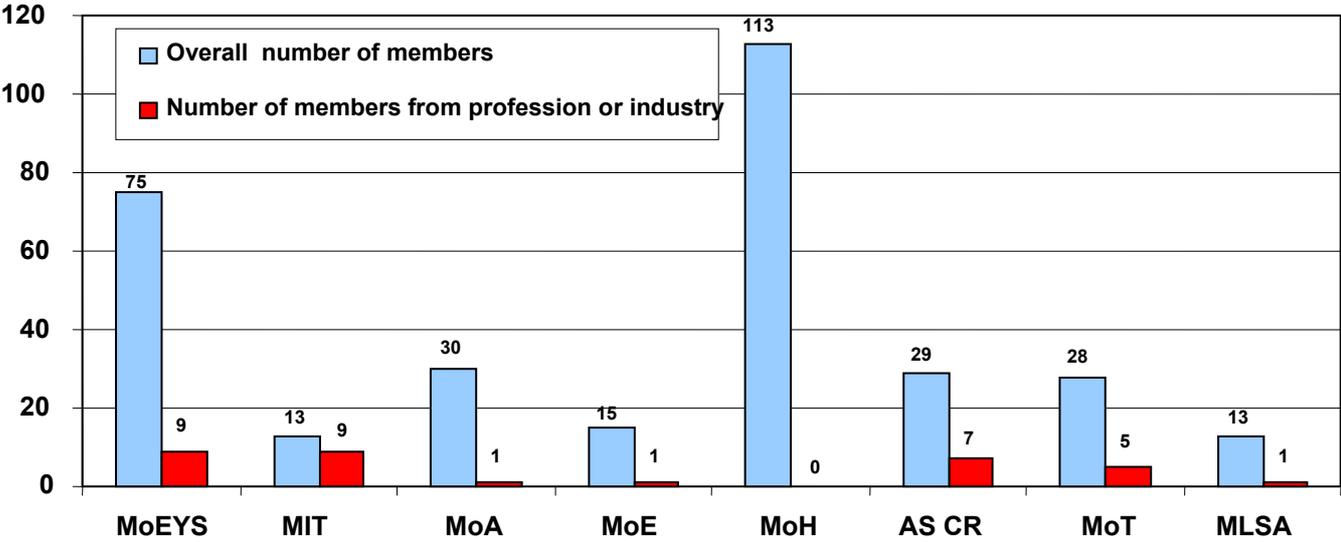


Figure 2 displays a chart illustrating the dates of meetings of the NRP Council and the Working Group for Coordination of NRP I. These groups meet to provide solutions, information activity and coordination activity going beyond the scope of advisory bodies of individual providers; the frequency of meetings is corresponding.

Figure 3 Number of members of advisory bodies by individual providers

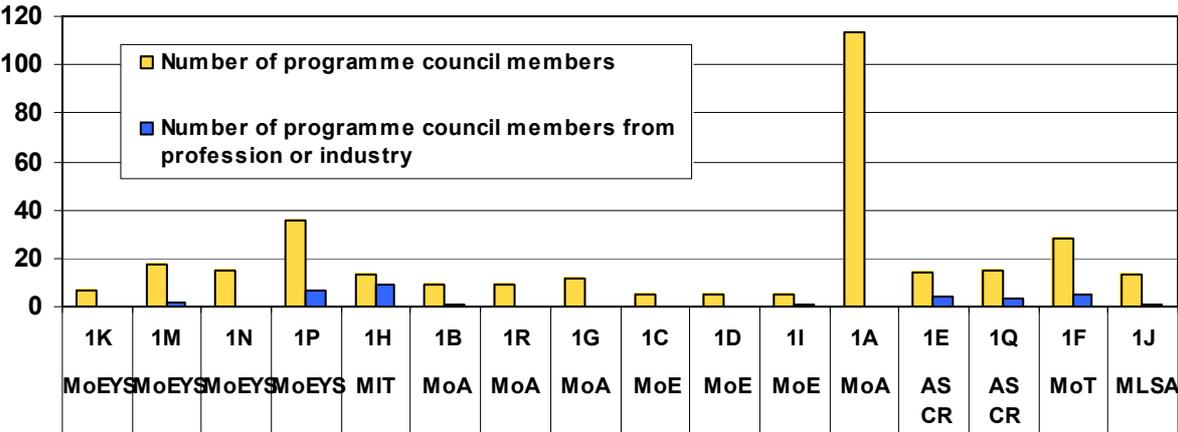


The implementation of Measure 13 within the accession of the Czech Republic to the document “Invest into research: Action Plan for Europe” COM (2003) 226 and other EU documents pertaining to research and development, approved by Government Resolution No. 513/2004, requires the industrial and other professional groups to have their representation in advisory bodies at the provider’s level. Though the above-cited Government Resolution was adopted substantially later than these advisory bodies (programme councils) had been established, the overall monitoring of NRP I was aimed also at representation of the industry and user sphere. Figure 3 shows overall numbers of programme council members, with numbers of representatives from industrial (or user) sector at the level of individual providers as a whole. It is evident from the figure that the Ministry of Industry and Trade (MIT) has prevalence in representation of industrial and user sector in these councils; same number of these representatives is also in the council for MoEYS programmes, but in the light of a substantially higher overall number of council members their relative representation is substantially lower. On the other hand, many providers do not have more than one representative of industrial and user sphere in their councils. A relatively high representation of industrial and user sphere is in the advisory bodies of the Ministry of Transport, which corresponds with its relatively high share of public support beneficiaries from private sector.

Figure 3 also demonstrates that the Ministry of Health has the highest number of advisory body members available, but none of them from the user or industrial sphere.

Figure 4 depicts the same representation, but at the level of individual programmes (not providers). It is evident from the figure that within MoEYS the industrial and user sphere representatives are concentrated only in certain relevant programmes. In particular, these are the application-oriented sub-programmes, or programmes “Research Centres” and “International and Regional Co-operation”, where the high representation of the above-mentioned concerned professional groups is mostly due to EUREKA programme.

Figure 4: Number of council members by individual sub-programmes (marking of sub-programmes according to R&D Information System is explained in Table 1)



4. Announcement of public tenders in research and development within NRP I

Government Resolution No. 417/2003 imposed the announcement of public tenders for NRP I in 2004 and 2005. In the next years, NRP I will be only running down without announcement of any new public tenders. The only exception is the sub-programme “Research Centres“, to which this deadline does not apply according to Government Resolution No. 822/2005.

Figure 5 illustrates the number of initiated projects and rejected project proposals; after summation these figures give an overall number of project proposals by respective providers in 2004. Most project proposals, 434 in total, were sent to MoEYS; 170 of them were accepted. On the contrary, the fewest number of applications and solved projects was reported by the Ministry of Health (MoH).

The same situation (most projects directed at MoEYS) occurred in 2005 (Figure 6), with a dramatic growth in the number of accepted project proposals. Also the number of proposals and accepted projects in the health sector increased significantly, as well as in other departments. The only exception is the department of environment with only a minor participation in initiation of new projects. The figure also shows that departments of transport and agriculture maintained a stable share of new NRP I projects in both years. The number of proposed and accepted projects within the Academy of Sciences of CR (AS CR) saw a marked growth in 2005.

Figure 5: Numbers of initiated and rejected NRP I in 2004

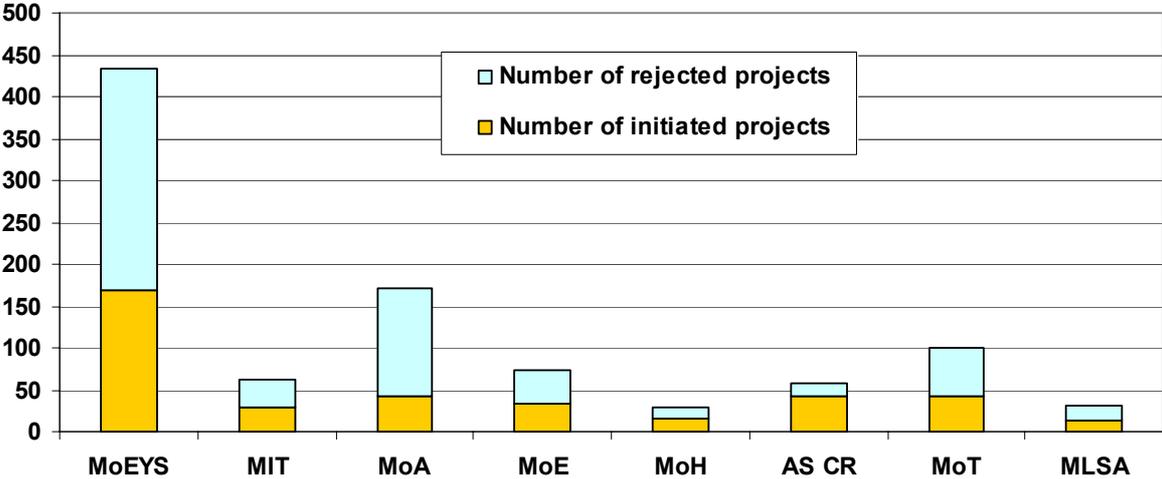


Figure 6: Number of projects initiated and rejected in 2005

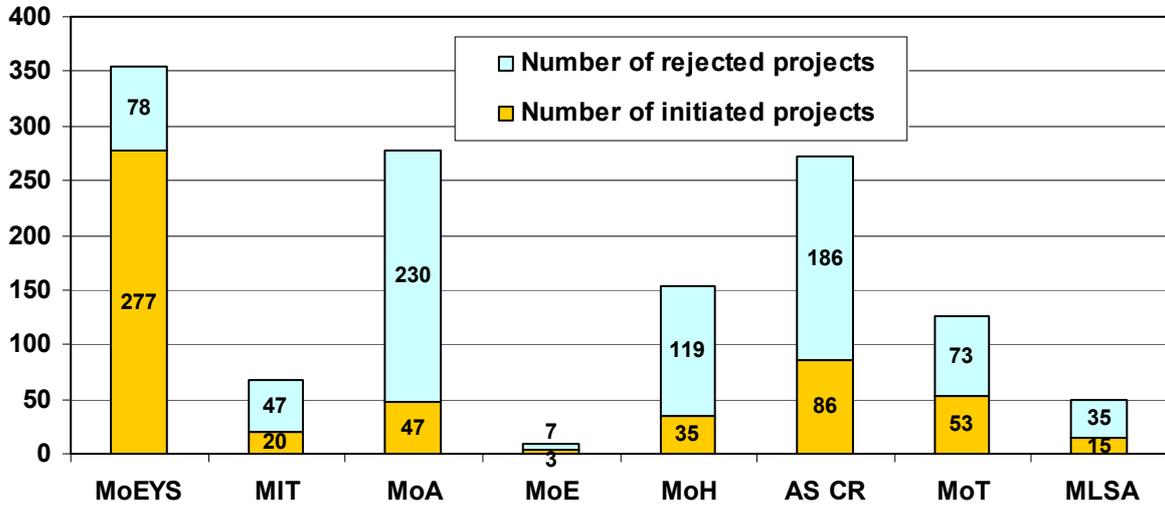
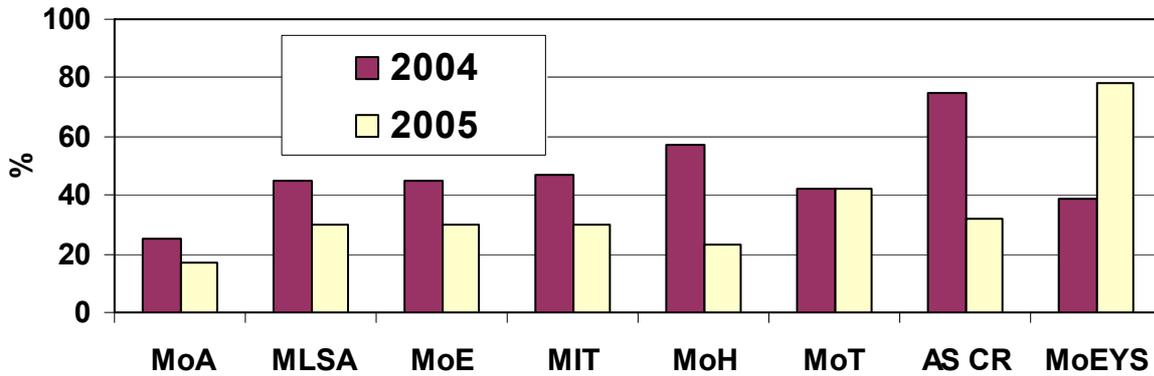
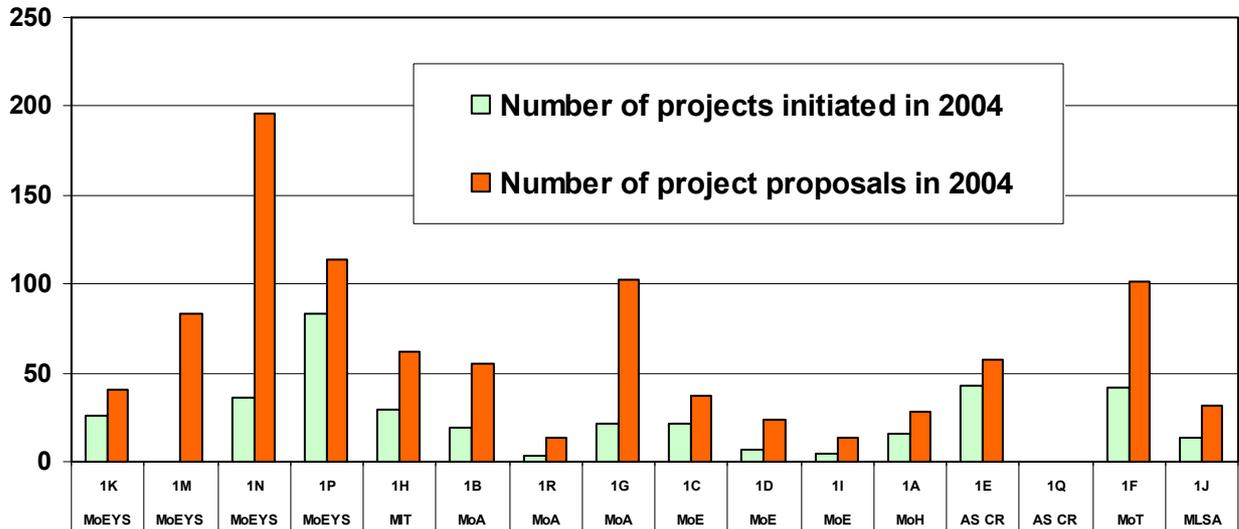


Figure 7: Project acquisition success rate



In following three departments, the Ministry of Labour and Social Affairs (MLSA), the Ministry of Environment (MoE) and the Ministry of Industry and Trade (MIT) the success rate of project acquisition (share of accepted and proposed projects x 100) ranged between 30 and 47% (see Figure 7) in both monitored years, i.e. at a quite stable level. Especially with MoEYS and AS CR, the difference in success rate was a marked one, while the success rate of project proposals with the Ministry of Transport was identical in both monitored years. High success rate in applications for support was reported by MoEYS (78% in 2005) and AS CR (75% in 2004) providers, with significant year-to-year variances. The least chance to acquire a project was with the Ministry of Agriculture (MoA) in both monitored years.

Figure 8: Number of NRP I projects in 2004



At the programme level, the number of project proposals and number of accepted (initiated) projects was monitored in 2004 (see Figure 8) and in 2005 (see Figure 9). In 2004, most applicants enlisted themselves with the sub-programme Research Information Infrastructure (1N) and the least interest arose in the sub-programme Rational Use of Energy and Renewable Energy Sources (1I), as shown in Figure 8. In both years, most projects started within the sub-programme Regional and International Co-operation in Research (1P), which remained the most interesting part of NRP I also in 2005. In 2005, the least interesting was the participation in the sub-programme Environment and Natural Resources Protection (1D).

Figure 9: Number of NRP I projects in 2005

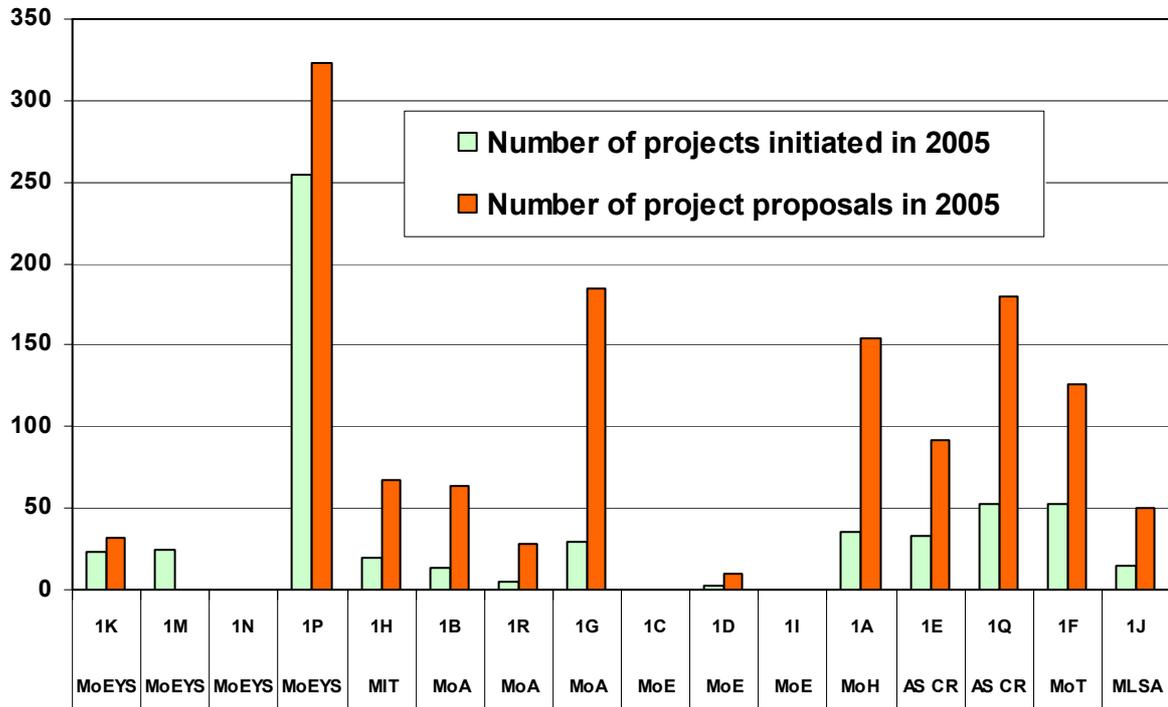


Table 2 shows dates when public tenders were announced. Any public tender announcement is considered timely if it is made at any day of the calendar year immediately preceding the calendar year, in which the projects are to start.

For the first year of NRP I (2004), the public tenders were announced behind the time in many departments. AS CR announced the whole thematic programme TP2 in February 2004, two months behind the funding schedule for selected projects. Also public tenders in research and development for most sub-programmes of TP1 were not announced until the first quarter of 2004 and MoE announced the public tender for its part of TP3 in February 2004.

On the other hand, the public tenders for 2005 were announced in time. For five sub-programmes TP1-DP3, TP3-DP6, PP1-DP1, PP2-DP2 and PP2-DP3 their providers (MoA, MoEYS and AS CR) have announced public tenders several times a year.

Table 2 Announcement dates of public tenders for NRP I sub-programmes

NRP I Part No.	Sub-programme	Provider	Public tender announcement date for projects initiated in 2004	Public tender announcement date for projects initiated in 2005
1.	TP1-DP1	MoH	3.3.04	1.12.04
2.	TP1-DP2	MoA	2.10.03	28.4.04
3.	TP1-DP3	MoE	4.2.04	Not announced
		MoA	2.10.03	28.4.04, 27.4.05
4.	TP1-DP4	MoE	4.2.04	30.6.04
5.	TP2-DP1	AS CR	11.2.04	16.6.04
6.	TP2-DP2		11.2.04	16.6.04
7.	TP2-DP3		11.2.04	16.6.04
8.	TP2-DP4		11.2.04	16.6.04
9.	TP3-DP1	MIT	16.7.03	21.4.04
10.	TP3-DP2	MoT	15.10.03	9.6.04
11.	TP3-DP3	MIT	16.7.03	21.4.04
12.	TP3-DP4		16.7.03	21.4.04
13.	TP3-DP5		16.7.03	21.4.04
14.	TP3-DP6	MoA	2.10.03	28.4.04, 27.4.05
		MIT	16.7.03	21.4.04
15.	TP4-DP1	MIT	16.7.03	21.4.04
16.	TP4-DP2		16.7.03	21.4.04
17.	TP4-DP3	MoE	4.2.04	Not announced
		MIT	16.7.03	21.4.04
18.	TP5-DP1	MLSA	26.11.03	1.6.04
19.	TP5-DP2		26.11.03	1.6.04
20.	PP1-DP1	MoEYS	1.10.03 a 10.3.04	29.9.04
21.	PP1-DP2		Not announced	Not announced
22.	PP2-DP1		Not announced	18.2.04
23.	PP2-DP2		16.7.03, 18.2.04	Not announced
24.	PP2-DP3	AS CR	The programme has not run until 2005	12.5.04 and 8.12.04
25.	PP3-DP1	MoEYS	30.7.03	6.5.04
26.	PP3-DP2			

Figures 10 and 11 show the participation in newly initiated projects by individual providers. In the first year of NRP I, 44% projects were funded from the budget of MoEYS, with other three providers (MoT, AS CR and MoA) funding 11% of new projects each. The remaining ministries funded projects in the amount of only few percents. In 2005, more than half (51%) of all initiated projects was funded from the MoEYS budget, 15% from the budget of AS CR, 10% from the budget of MoT, with remaining departments funding only 24% of all newly initiated projects.

Figure 10: Participation of departments in initiated NRP I projects in 2004

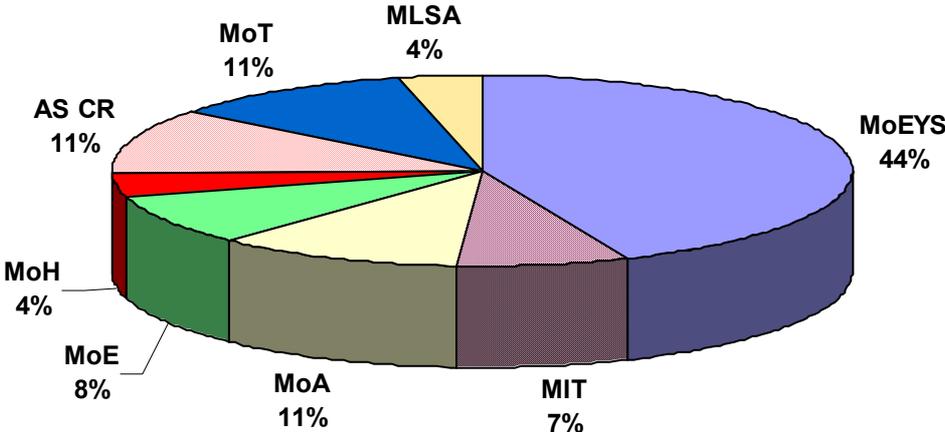
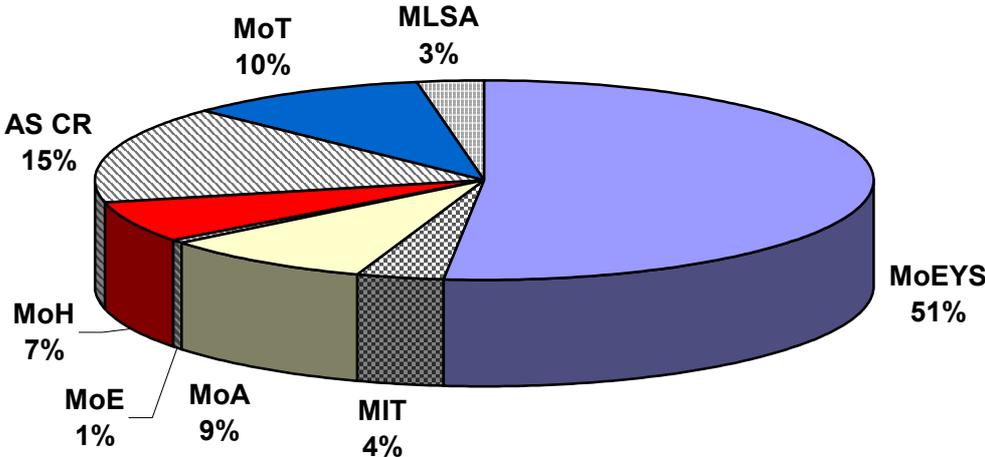
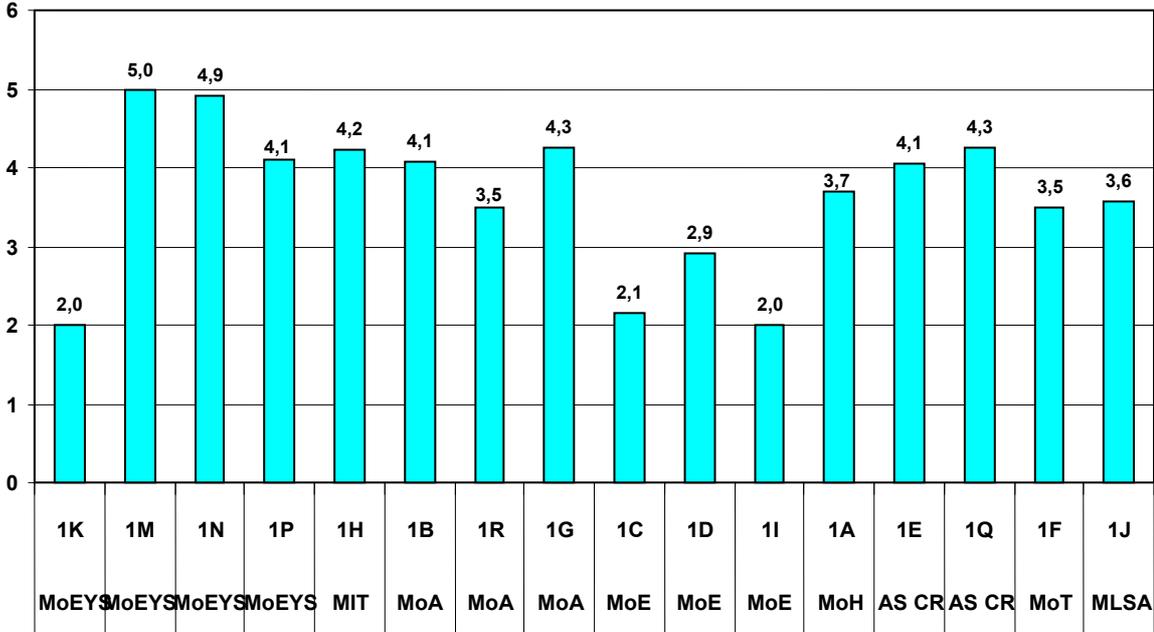


Figure 11: Participation of departments in initiated NRP I projects in 2005



As shown in Figure 12, most projects within NRP I have duration of 4 to 4.5 years. The longest time is spent on solving projects within the Research Centres Programme, 5 years on average. On the other hand, there exist a group of programmes with only two-years' and three-years' projects announced all programmes of MoE and the MoEYS programme titled Support of Young Research and Development Workers.

Figure 12: Average duration of a project in NRP I (years)

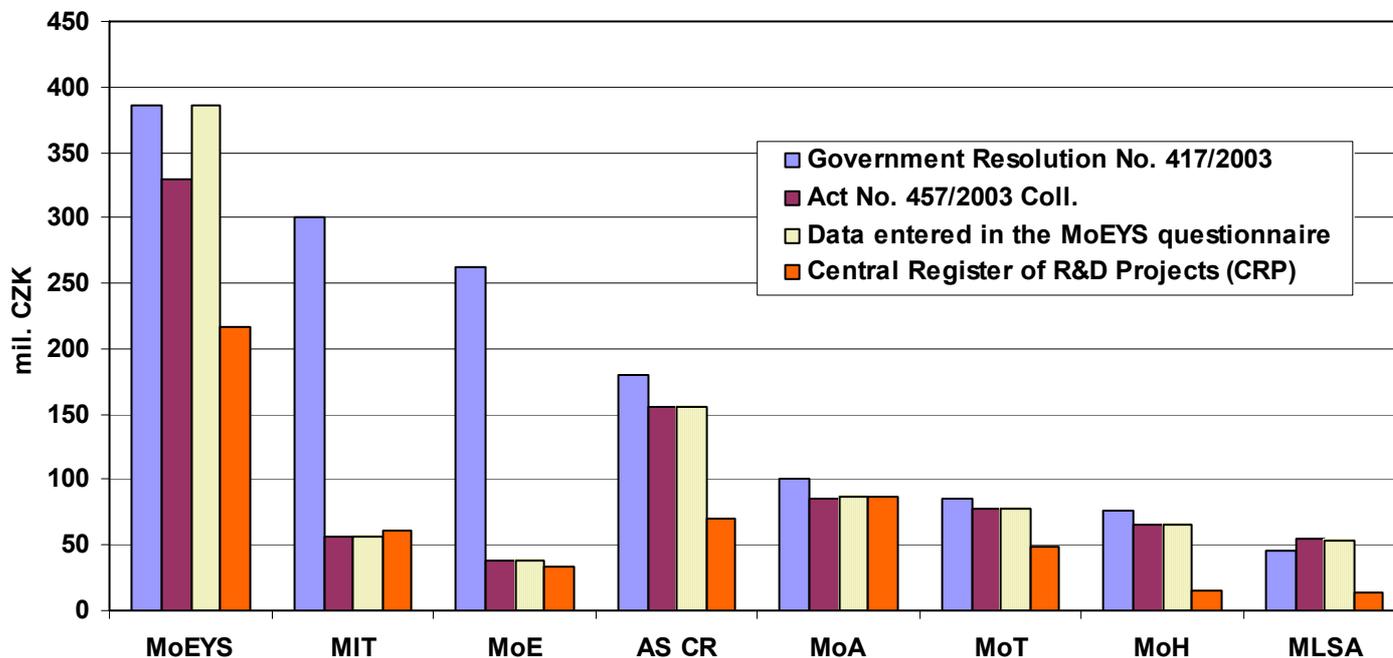


5. Funding of NRP I

The proposal of NRP I funding approved by Government Resolution No. 417/2003 has been designed up until termination of the programme in 2009. But the amount of public funds intended for this programme has gone through several corrections, particularly on the basis of state budget acts for subsequent years. Figures 13 and 14 display public budget expenditures on NRP I in 2004 and 2005 by individual departments according to Government Resolution No. 417/2003, spendings of individual providers in the binding state budget indicator relating to NRP I according to Act on the state budget of the Czech Republic (lower planned expenditures with respect to the public finance reform), data on public funds earmarked for NRP I and given by departments as of the relevant date and finally, targeted support from public funds for all programme parts of NRP I by respective providers in the relevant year – figure from the Central Register of R&D Projects (CRP). The providers sent figures on the binding indicator relating to NRP I in budget chapters of respective departments and data on public funds provided for NRP I in 2004 to the coordinator (see Figure 13) in February 2004. Data mentioned in the questionnaire for the coordinator's needs must be taken only as framework information on financial volumes being competed for in the public tenders within NRP I at the beginning of 2004. In addition, many providers have been changing data later.

According to bookkeeping data of departments provided by MF CR, the amounts actually drawn for NRP programmes in 2004 in individual departments correspond with data taken from CRP.

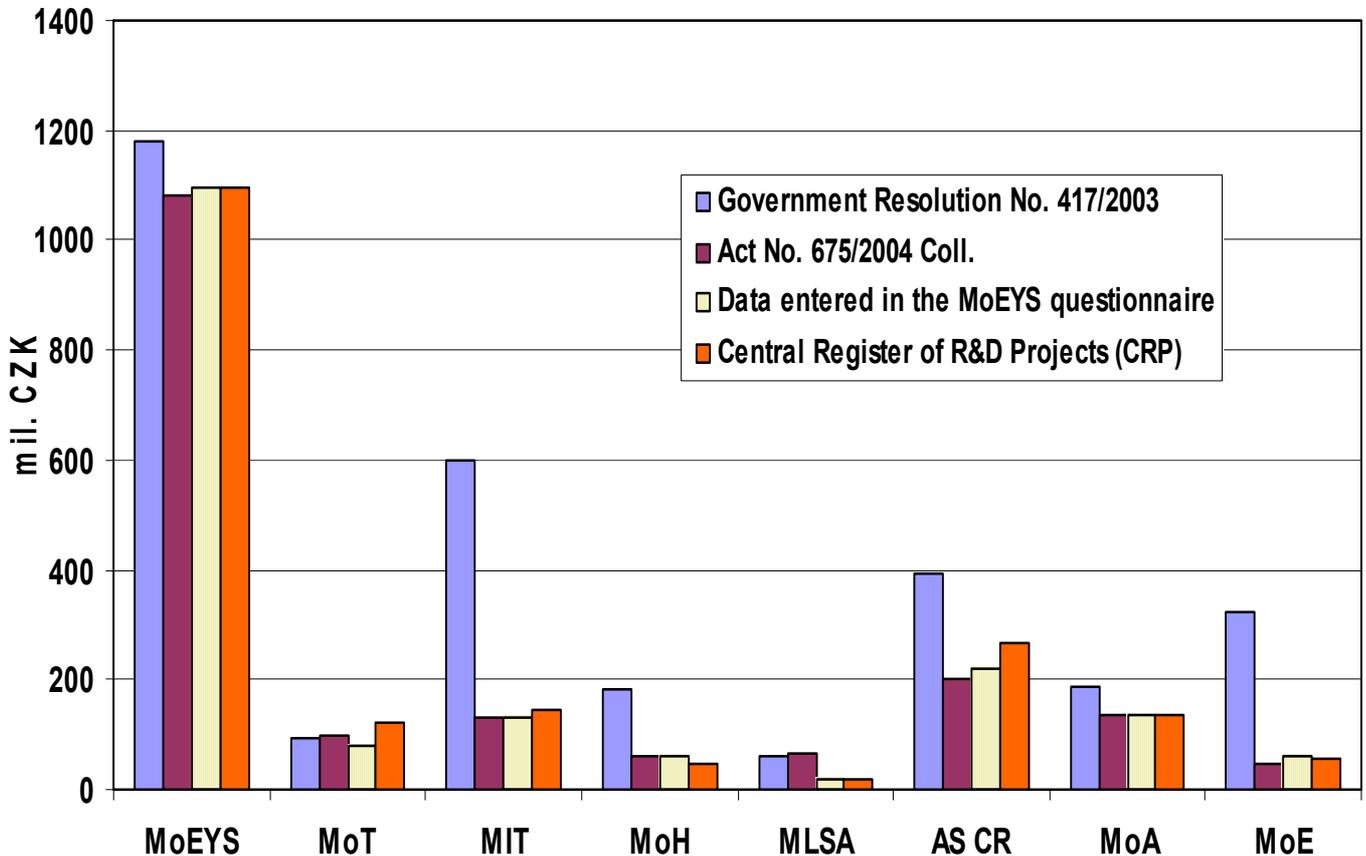
Figure 13: Public fund expenditures on NRP I by individual providers in 2004



In both monitored years 2004 and 2005, there existed a considerable difference with some providers between the public fund expenditures planned according to Government Resolution No. 417/2003 and the state budget figures. This applies particularly to MIT and MoE. No doubt this situation was due to NRP I being initiated in the period of public finance reform,

which led to a limited growth in public funds even for research. Therefore, NRP I has not commenced in a financial scope as originally expected in the draft.

Figure 14: Public fund expenditures on NRP I by individual providers in 2005



The amount of public support given to individual sub-programmes considerably differs due to the predominant type of research. As shown in Figure 15, the highest share of public support in eligible costs approaching 100 % was reported in all sub-programmes of MoA.

Though both the overall expenditures and public fund expenditures mentioned in draft NRP I approved by Government Resolution No. 417/2003 have been further modified in respect to preparation of state budgets for subsequent years, the proportion between public fund expenditures and overall expenditures on this programme should be maintained to meet the originally set targets in terms of amount of a practical oriented research solved within NRP I and relevant protection of economic competition.

Figure 15 shows this amount of public support calculated from the ratio between public and overall expenditures approved by the above mentioned resolution. By comparing the amount of public support in draft NRP I and in actual programme, it is possible to make a relatively precise estimate how the anticipated scope of co-funding research was attained within this national programme. It is evident from Figure 15 that especially those parts of NRP I controlled by MIT, MoE, MLSA and MoEYS attracted more investments from private sources than originally expected. On the contrary, higher public support than allowed for in draft NRP I approved by Government Resolution No. 417/2003 was provided in the transport department.

Figure 15: Percentual amount of public support in NRP I sub-programmes

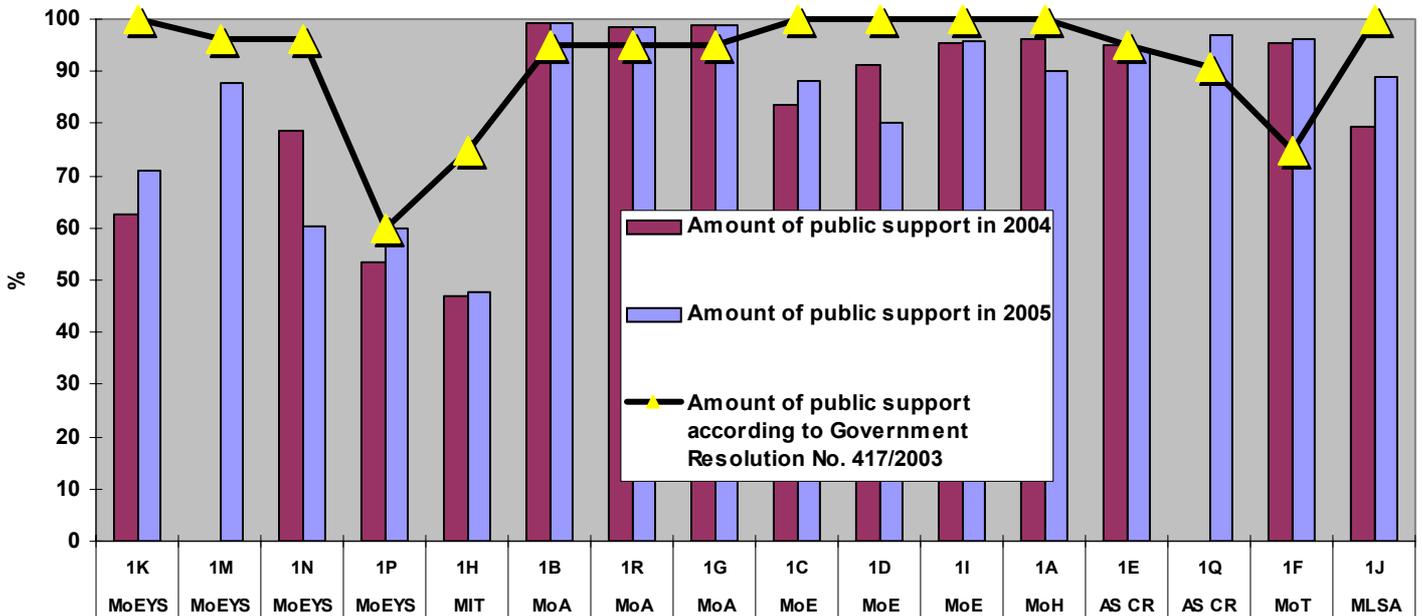
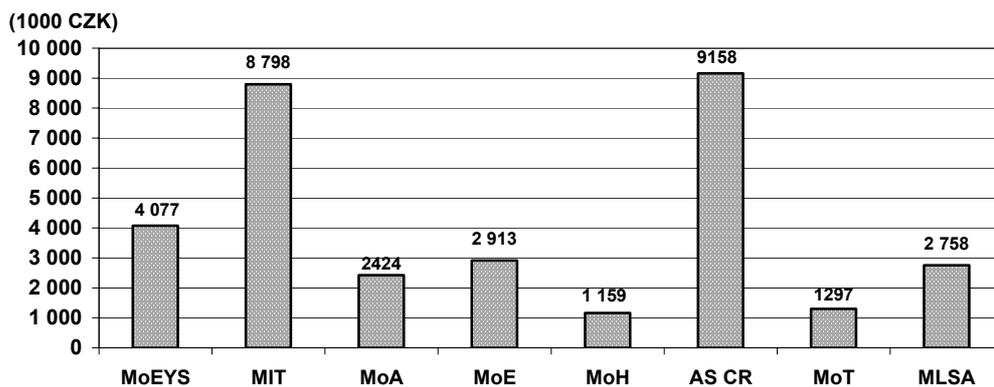


Figure 16 shows the overall eligible costs per one project for the first two years of NRP I period calculated by dividing the overall costs for NRP I within a respective department in a given period by number of projects. It is evident that this item predicates of the overall eligible costs spent on average on one initiated project no matter when the project started (or how long it runs).

Figure 16: Average overall costs per project (for years 2004 and 2005)



The overall eligible costs per project were highest in AS CR and MIT, but with markedly different amounts of public support. For MIT, the share of public funds is less than a half on average, while in case of AS CR nearly all eligible costs are covered from public funds. Besides MoEYS, no other provider had overall costs higher than 3 millions per project on average.

Figure 17 Share of sub-programmes in total NRP I expenditures in 2005

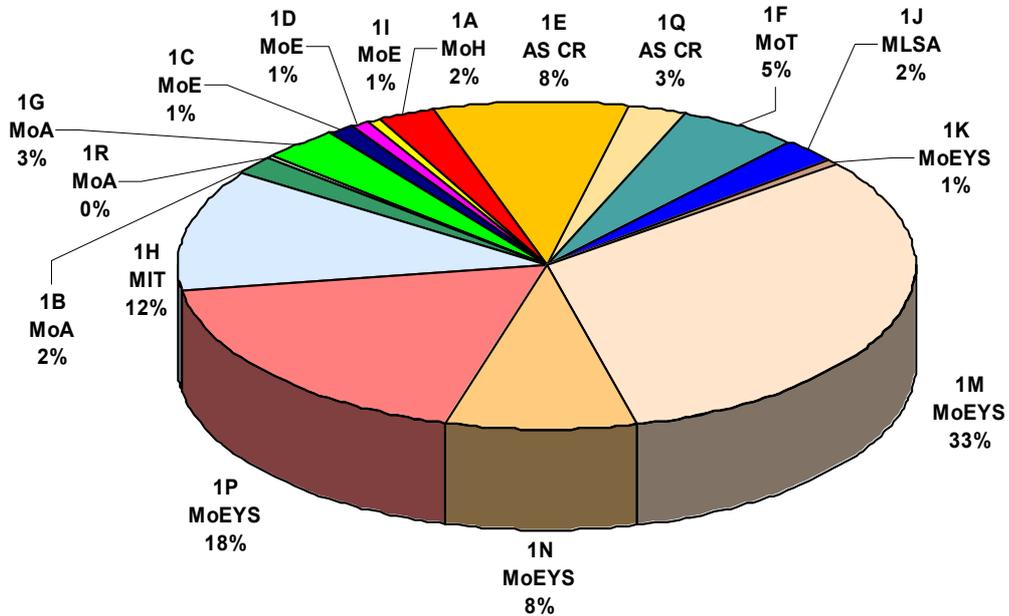
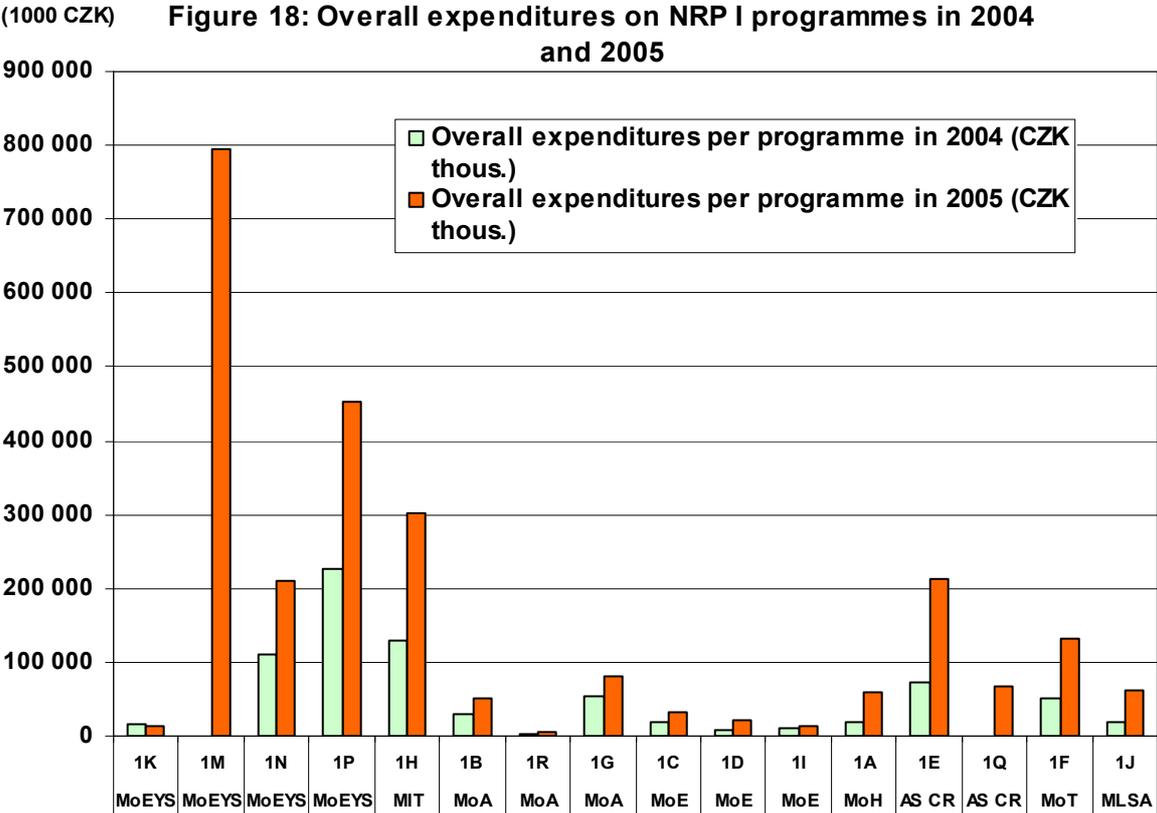


Figure 17 illustrates how individual sub-programmes participate in funding of NRP I as a whole. Data are given only for 2005 when all sub-programmes have already commenced. This composition will change very little in the future, the only influencing factor being the initiation of other projects within the Research Centres (1M) sub-programme in 2006. On the other hand, this effect may be compensated to a certain extent by termination of two-years' projects in the sub-programmes funded by MoE.

As shown in Figure 17, the highest share of total expenditures (one third) was spent on the Research Centres sub-programme consisting of very financially demanding projects. Other costly sub-programmes like Regional and International Co-operation (1P) and Research Information Infrastructure (1N) were also funded by MoEYS. Despite a relatively low number of projects, the POKROK programme (1H) co-funded by MIT stood out because of its overall costs. On the other hand, sub-programmes funded by the department of environment, the Support of Young Research and Development Workers (1K) sub-programme funded by MoEYS and part of TP1-DP3 (Landscape and Settlements of the Future 1R) funded by MoA only took a one-percent share (each) of the overall expenditures on NRP I.

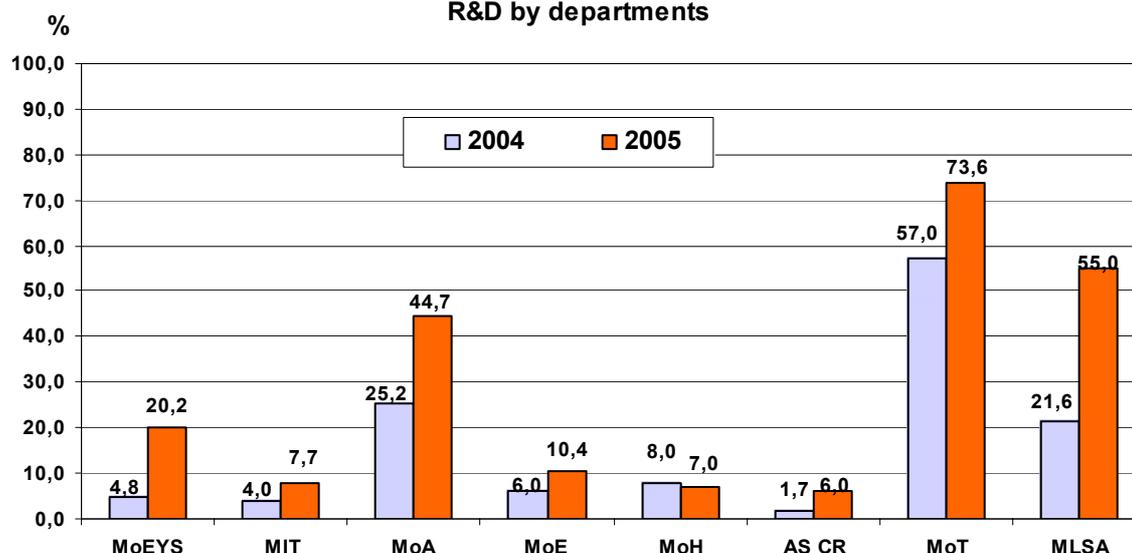
Figure 18 illustrates the allocation of funds across respective sub-programmes of NRP I as the sum of overall resources spent. Nearly CZK 800 million was spent on the Research Centres sub-programme in 2005. This influenced positively the amount of MoEYS expenditures on NRP I in the year in question. Nearly half a billion Czech crowns was spent on the second most costly sub-programme Regional and International Co-operation, which has a relatively high financial participation. On the other hand, the least funds in 2004 were



spent by MoA on TP1-DP3 Landscape and Settlements of the Future (1R) sub-programme, only CZK 3 200 000.

As shown in Figure 19, the largest share of resources for research and development allocated for NRP I is reported by MoT, MLSA and MoA. In 2005, the public funds of MoEYS intended for NRP I represented only 20% of all departmental resources intended for research and development. In other departments, the share of NRP I in departmental funds intended for research and development did not exceed 10%.

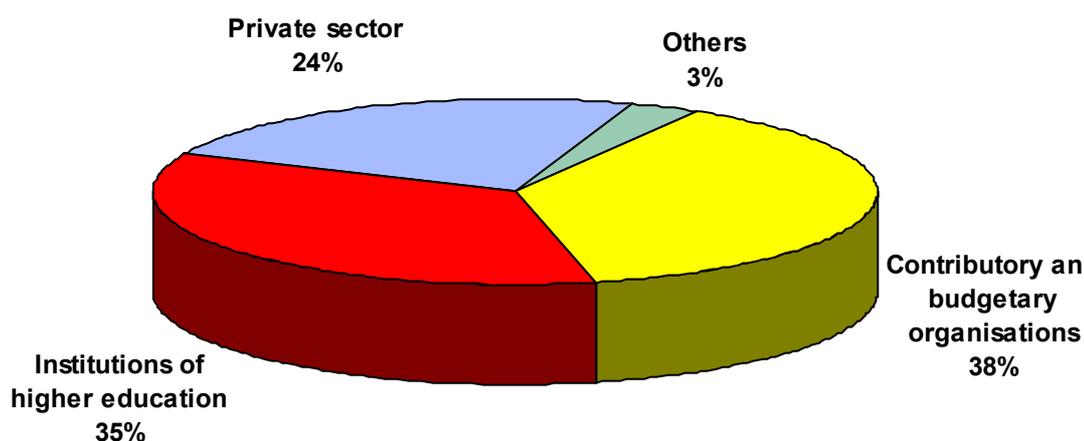
Figure 19: Share of targeted resources for NRP I in overall resources for R&D by departments



6. Participation of various legal entities in NRP I

As shown in Figure 20, contributory and budgetary organisations took the largest part in NRP I. These organisations solved 38% of all projects within this national programme. Only 3% less projects were solved by institutions of higher education. Nearly one quarter of projects was solved by private sector, i.e. a physical person with ID No, a legal entity registered in the Companies' Register, and a special-interest group of legal persons. Other receivers (i.e. natural persons, non-profit organizations, and citizens' associations) acquired the remaining 3% of projects.

Figure 20: Share of projects in NRP I by legal form of the beneficiary



As is evident from Figure 21, only MoEYS, MIT, MoT, AS CR and MoE funded all types of legal entities. On the other hand, the Ministry of Health (MoH) and the Ministry of Labour and Social Affairs (MLSA) have no projects funded by private sector. With MoH and MoA there is no beneficiary included in the category of “Others”. For programme parts administered by MoEYS, MIT and MLSA, the number of projects awarded to institutions of higher education exceeded the number of projects awarded to contributory and budgetary organisations. The Ministry of Education, Youth and Sport became the largest provider also for the private sector; the number of beneficiaries from the private sphere was more than twice the figure for MIT. Also MoT participated significantly in funding the private sphere projects; however, the share of public eligible costs of the overall costs is markedly high in comparison with the extent of public support mentioned in Government Resolution No. 417/2003.

Figure 21: Number of projects in individual departments by legal form of a beneficiary

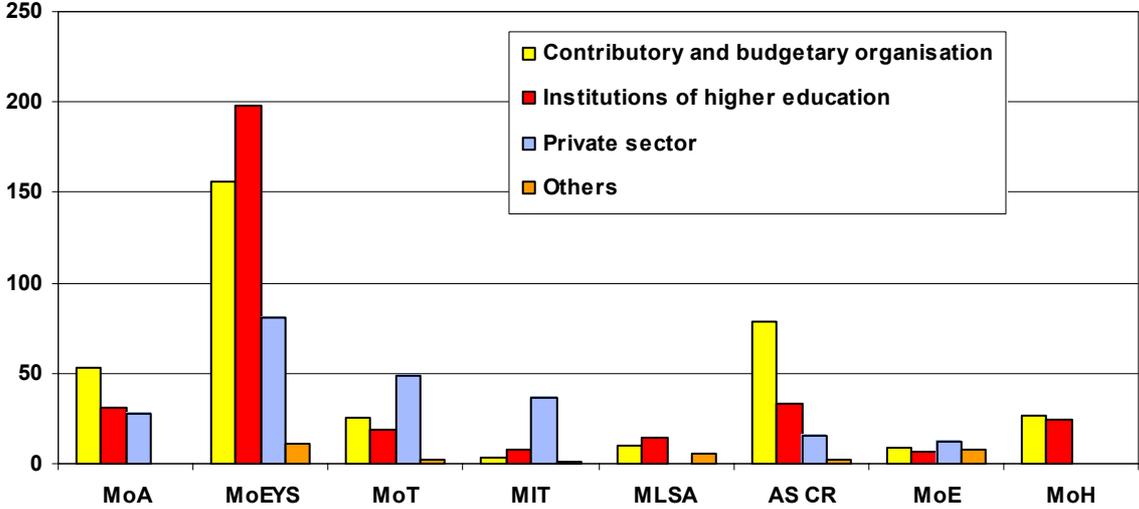
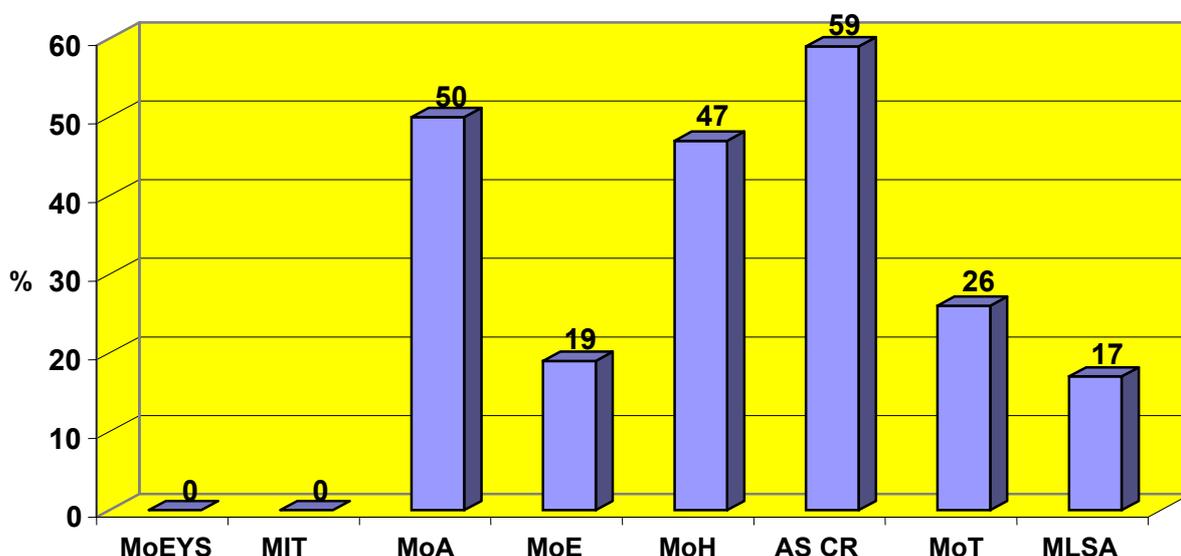


Figure 22 illustrates the share of beneficiaries for whom the provider is their founder at the same time. All resources of MoEYS² and MIT were offered outside their departments due to a minimum number of suitable directly controlled organisations or contributory organisations founded by these ministries. In case of AS CR as a provider, more than half of projects (59%) was awarded to its workplaces. High share of projects awarded by the provider to institutions founded by it was also with MoA and MoH; this share was nearly half of all departmental projects in NRP I. For sub-programmes of remaining providers, no more than 30% projects in NRP I were awarded to institutions founded by them.

Figure 22: Percentage of NRP I projects awarded to institutions, the founder of which is concurrently the provider



7. Regional distribution of projects within NRP I

More than half of projects within NRP I (55%) was awarded to beneficiaries from Prague (see Figure 23). Another significant region is Jihomoravský kraj (South Moravian Region) with 18% of beneficiaries. Beneficiaries from other regions participated in NRP I with only a small percentage not exceeding 4 %.

² Zero values (in Figure 22) for MoEYS are caused especially by the fact that institutions of higher education are not institutions founded by MoEYS.

Figure 23: Regional distribution of projects funded within NRP I in 2004 and 2005

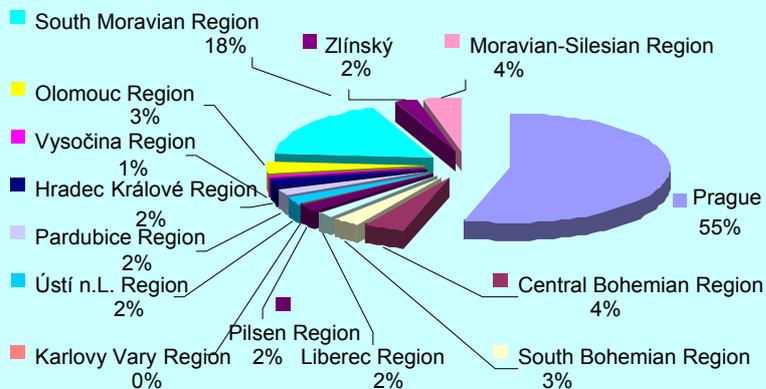


Figure 24: Number of projects solved within NRP I - regional distribution (overall figures for 2004 and 2005)

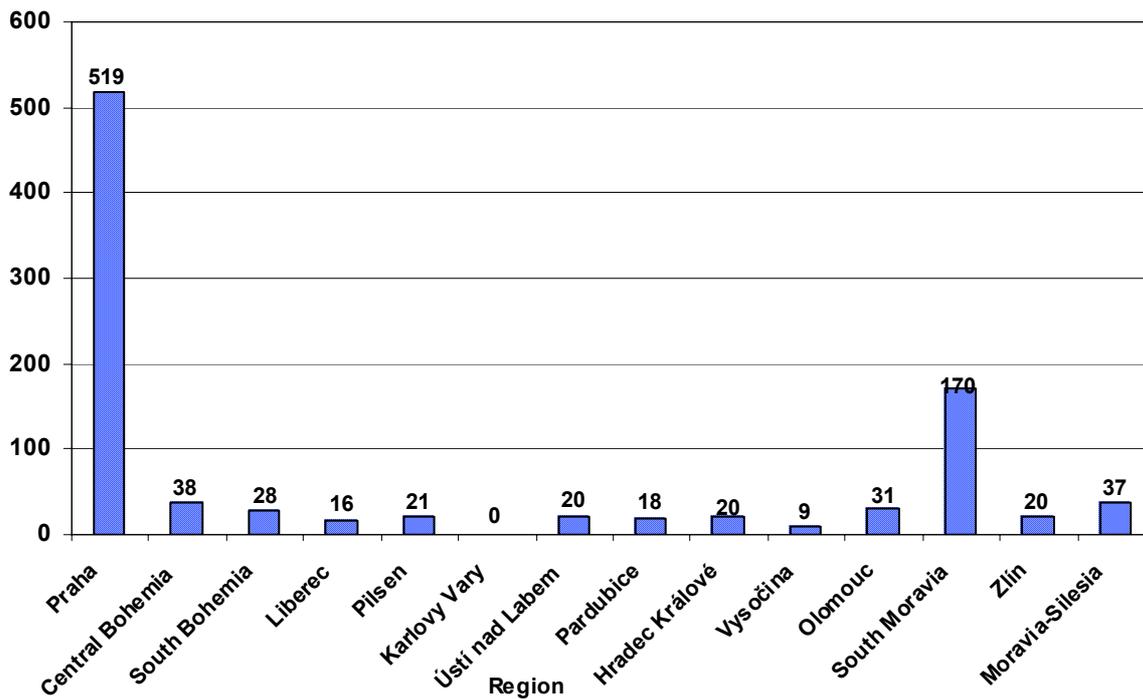
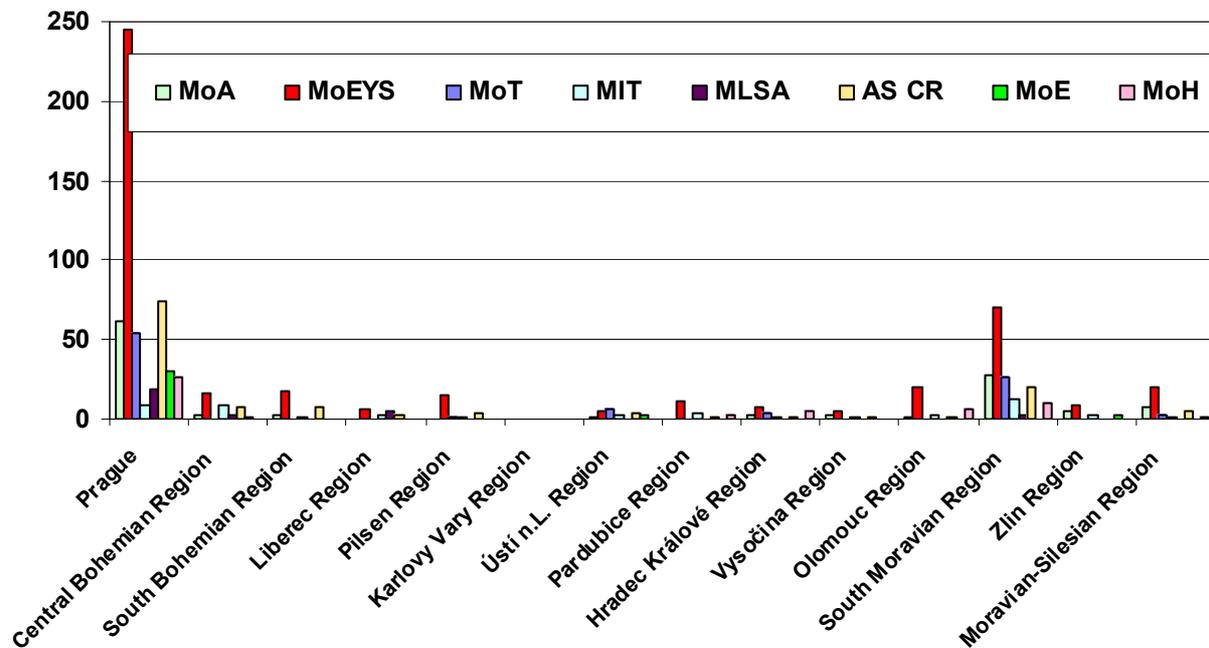


Figure 25: Number of NRP I projects by regions broken down by individual departments (years 2004 and 2005 in total)



As shown in Figure 24, Prague beneficiaries were awarded 519 projects and 170 projects were solved in the South Moravian Region. In other regions the number of NRP I beneficiaries did not exceed 40. Karlovy Vary Region has no beneficiary at all.

8. Compliance with the NRP I thematic content

By comparing information on the thematic content of individual NRP I parts from the Register of Public Tenders in Research and Development (RPT) and draft NRP I approved by the Government it was possible to estimate a thematic compliance between what the Government approved within draft NRP I and what the providers announced as thematic targets into RPT being part of the R&D Information System. Some providers (e.g. AS CR for TP2 and MIT for TP3 and TP4, where they act as providers) enter in RPT only data on the whole thematic programme and not on individual sub-programmes. This reduces the factuality of the thematic content to a certain extent. The thematic content was regarded as being complied with in case of at least a gross conformity of basic objectives or thematic description of part of NRP I entered in RPT with the thematic content approved by Government Resolution No. 417/2003.

9. Evaluation of the initiation and progress of NRP I

The National Research Programme I was initiated in 2004 in accordance with Government Resolution No. 417/2003. Some parts of this national programme started one year later, in accordance with the above cited resolution. A brief evaluation of certain parameters of NRP I is displayed in Table 3.

This evaluation concerns meeting of the NRP I funding level laid down in the state budget act, timeliness of announcements of public tenders, and thematic compliance of NRP I parts by comparing targets in RPT and draft NRP I approved by Government Resolution No. 417/2003. Evaluated is also how the amount of public support in overall eligible costs is complied with within programmes of a respective provider as laid down in draft NRP I approved by the above cited Government Resolution. Yet the volume of public expenditures on this programme has been later corrected as a result of subsequent state budget

modifications, this does not obstruct the target to maintain the originally requested level of public support.

The uncertainty accompanying the initiation of NRP I itself, and therefore in some cases an unexpected start of certain programme parts, has led to a lower participation in many public tenders announced in 2004. This resulted in a higher success rate in acquisition of projects than with the grant agencies (ca 30-35%). This situation may be prevented especially by stabilising the funding environment for research and development and increasing its resistance against various budgetary measures. In case of the MIT programme parts, as well as with the cross-sectional programme parts (AS CR in 2004 and MoEYS in 2005), the high success rate can be explained by low costs of the most successful project proposals. For the newly initiated cross-sectional parts of NRP I filling the gaps in the R&D programme offer this however cannot be considered a bad estimate of the absorption capacity, but rather an effort to fulfil the cross-sectional priorities of NR&DP.

The evaluation of expenditures on research and development was based upon data mentioned in Chapter 5 of this report. The comparison of figures of the binding state budget indicator for NRP I in individual budgetary chapters for 2004 from the 2004 state budget act and data in CRP shows a very good agreement in programme parts administered by MoA, MoE and MIT; other departments spent lower resources on NRP programmes than laid down by the above indicator. MoH and MLSA reported the lowest share of spent resources of this indicator.

Very good is the compliance between the binding state budget indicator for NRP I for 2004 and the amount of public funds for the same purpose and year mentioned in information given to MoEYS by providers. In most cases, these figures reported by departments are in agreement with the volume of funds being competed for in public tenders (RPT) for the first NRP year. The variances between CRP data and data given to the coordinator (MoEYS) can be explained by the data update in later period.

A relatively high share of projects was discovered with some providers being awarded to institutions founded by them. At MoA and MoH, the probable reason is particularly the thematic tie between relevant parts of NRP I and the departmental research base. At AS CR, a significant share (59%) was reported of projects with a beneficiary being the workplace of AS CR, but funds spent on these projects are further granted to a large extent to co-beneficiaries outside AS CR, as emerged from discussions concerning this matter on the 7th meeting of the NRP I Council. Information provided by AS CR beyond the scope of regularly monitored data shows that this provider transfers more than half of its NRP I target support outside its workplaces.

NRP I figures reported a marked disproportion between the number of projects solved in the territory of the Prague capital and in the regions; with more than half (55%) of projects solved in the capital. This fact, however, reflects the situation being typical of the Czech research environment as a whole; Prague employs 46% research and development workers and the government sector (especially AS CR and departmental research) even 55% of these workers.³ Situation should improve after 2013, when resources (mostly from the European Regional Development Fund) will be used for building new research capacities outside Prague. But it is necessary to remark that the above mentioned regional distribution of projects does not specify the co-beneficiaries who are not mentioned in R&D IS. This may bring a certain distortion to the evaluation of the regions' involvement in NRP I.

In 2005, the public funds allocated for NRP I and registered in CRP and data given to MoEYS were already in agreement with the approved state budget; the only exception being MLSA where the amount of spent funds is lower than expected by the state budget.

³ Research and development indicators for 2004, Czech Statistical Office.

Public tenders in research and development have not been announced always in time, especially for the first year of this national programme. With delay, i.e. only in the year of the NRP I initiation (and not in the previous year) were announced public tenders for one or more parts of NRP I by MoH, AS CR and MoE. The reason for late announcements of public tenders for NRP I with some providers was particularly the uncertain resources for this national programme in the light of a series of budget cuts proposed within the public finance reform. This has delayed particularly those sub-programmes, which started as a wholly new and did not come over into the national programme from departmental research.

The situation looked considerably more stable in 2005, which resulted in timeliness of public tender announcements. The fact whether the public tender in research and development was announced for the first time at any time during the year preceding the year of project initiation became rather benevolently (regarding the problematic start of NRP I) the measure of its “timeliness”.

This report which is in principal dedicated to the initiation and opening phase of NRP I does not deal with attainment of objectives of this national programme. The impacts of NRP I on performance and effectiveness of the Czech research and attainment of other objectives of this programme mentioned in Part III, point 3 of draft NRP I approved by Government Resolution No. 417/2003 will be possible to evaluate only during the ex-post evaluation of the programme as a whole and its parts. One or two years after initiation of projects, it is impossible to request concrete outputs in case of an experimentally demanding interdisciplinary project, where the equipment acquisition and installation itself may take one to several months. In addition, it must be noted that identification of important outputs, i.e. release of a publication (with the exception of short communications) or publication of an application or even granting of a patent is a long distance run. Therefore, the attainment of NRP I objectives will be addressed in the final report on NRP I, which will be submitted to the Government for information after termination of this national programme. Nevertheless, the coordinator has been continuously mapping the thematic content of NRP I and informing the NRP I Council on the results.

10. Summary

The initiation of NRP I managed to provide funding for priority themes of the National Research and Development Policy of the Czech Republic by coordinating its parts funded under various providers. At the same time, it was possible to earmark considerable sums of money from public funds for this programme and find an acceptable form of coordination of individual NRP I providers within legal and capacity conditions. Despite delayed announcements of public tenders for the first year of NRP I in most departments, the initiation itself of the projects in the course of the first year of this national programme was not generally endangered. It is also necessary to take into account the uncertain situation of the NRP I initiation in the period of the public finance reform, where for a relatively long time after adoption of Government Resolution No. 417/2003 it was not clear whether public funds will be available at all for opening of this programme. Vital improvement in the timeliness of the public tender announcement took place in the subsequent year of NRP I. Most sub-programmes did not show any variances between the NRP I assignment approved by the Government and thematic content of individual sub-programmes. More factual comparison of the thematic compliance of individual parts is prevented by only a brief description of targets in RPT on one hand and a very detailed definition of targets in draft NRP I on the other. Two thousand two hundred and sixty nine project proposals were enlisted in NRP I in total; 926 projects were accepted for funding in 2004 and 2005 and another 22 projects were transferred into NRP I from 2003. The national programme is coordinated by the NRP Council composed

mostly of the public administration experts. This approach makes it possible to support interdepartmental collaboration and eliminate potential conflicts of interests being so typical of concerned professionals.

The reduction of public expenditures being originally approved for NRP I by Government Resolution No. 417/2003 in the acts on the state budget of the Czech Republic for subsequent years has practically limited the financial resources for solution of projects of the above mentioned research programme. In the first two years of NRP I, public funds in the overall amount of CZK 2,433 mil (see CRP) were spent on this programme and according to the state budget acts (binding indicator for NRP) CZK 2,680 mil should be spent on this purpose. In the first place, this difference was caused in the early phase of NRP I in 2004, when it was not clear whether it would be possible to initiate this programme at all because of financial problems accompanying the period of the public finance reform. This phenomenon had more impact on the newly started sub-programmes than on the already running ones, which only entered NRP I. In 2005, the difference between public expenditures for NRP I reported in CRP and those specified in the state budget act for the respective year decreased to a minimum (CZK 1,815 mil in the state budget act and CZK 1,887 mil according to CRP).

In general terms, the amount of public support given to NRP I was lower than expected in the draft approved by Government Resolution No. 417/2003 (see Figure 15), especially in regard to a considerable amount of co-funding of projects in the industry-oriented parts of NRP I (POKROK and EUREKA programme of international cooperation as part of PP2-DP2). On the other hand, a reverse trend was observed with TP3-DP2 the increase in the public support amount not only against the draft approved by the above mentioned Government Resolution, but also against expectations following from the legal subjectivity of the beneficiaries (with prevailing private sector – see Figure 21). The reason may be a very marked disproportion in the size of projects of contributory and budgetary organisations and institutions of higher education against projects of private entities, where the influence of mostly not so costly projects of industrial character would be only minor against several large projects of universities and contributory or budgetary organisations. Another reason, shared also by the provider, is the performance of basic research also by private entities under conditions determined for this purpose by the communitary support framework for research and development (96 C 45/06)⁴. While the responsibility for protection of economic competition rests with the provider, the NRP I coordinator will explain this issue in the final report on NRP I on the basis of data supplied by a competent provider.

Certain reserves were discovered in representation of industrial and user sectors in the advisory bodies of individual providers, with the obvious exception of MIT. In the agreement with Measure 13 of Accession of the Czech Republic to the document “Invest into research: Action Plan for Europe” approved by Government Resolution No. 513/2004, the NRP I Council recommended to all providers to increase participation of industry and concerned public in the programme councils.

⁴ Published in the Official Journal of the European Commission C 045, 12/02/1996, p. 5-14.

Table 3 Evaluation of NRP I at the level of providers in terms of expenditures, public tender announcement, thematic content and public support amount

Provider	Compliance of expenditures according to the state budget for 2004 and information supplied by providers on public expenditures for NRP for the same year	Compliance of expenditures according to the state budget and targeted public support given to projects in 2004 (data from CRP IS)	Compliance of expenditures according to the state budget for 2005 and information supplied by providers on public expenditures for NRP for the same year	Compliance of expenditures according to the state budget and targeted public support given to projects in 2005 (data from CRP IS)	Timely announcement of public tender in R&D in 2004	Timely announcement of public tender in R&D in 2005	Thematic compliance according to Government Resolution No. 417/2003 and the public tender announcement	Observance of the public support amount according to Government Resolution No. 417/2003 ⁵
MoEYS	++	±	+	+	+ ⁶	+	+	++
MoT	+	±	+	++	+	+	+	-
MIT	+	+	+	+	+	+	+	++
MoH	+	-	+	+	-	+	+	+
MLSA	+	-	-	-	+	+	+	+
AS CR	+	-	+	++	±	+	+	+
MoA	+	+	+	+	+	+	+	+
MoE	+	+	++	+	-	+	+	+

Note: + means fulfilment of a criterion, - means non-fulfilment of a criterion, ± means partial fulfilment of a criterion and ++ marked increase in indicator figures above the values given by Government Resolution or act.

⁵ This indicator evaluates whether the amount of public support according to Government Resolution No. 417/2003 was observed and has only an indicative character, because by changing the public expenditures for NRP I through applicable state budget acts the amount of funds granted by private sector changed accordingly within the co-funding arrangements..

⁶ Timeliness of announcement is evaluated for announced public tenders in research and development and therefore it does not apply to PP1-DP2 sub-programme.