TRANSPORT AND COHESION POLICY IN THE CZECH REPUBLIC IN THE PERIOD 2007-2013

DOPRAVA A KOHEZNÍ POLITIKA ČESKÉ REPUBLIKY V OBDOBÍ 2007-2013

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Summary: Transport may be considered to be a cornerstone of current society. Transport infrastructure investments and sustainable transport belong to the most often discussed transport themes and issues. And just on these two themes EU cohesion policy is oriented in the Czech Republic, with a decisive role of Operational Programme Transport and regional operational programmes in the structure of Czech operational programmes. Therefore, approved transport projects of OP Transport and ROP Central Moravia are analyzed in the article. The main findings point at the preference of new transport infrastructure construction to the development of sustainable urban transport systems. Spatially, there are disparities between core and peripheral regions of the Czech Republic when the decisive share of funds is allocated close to the main development centres. However, also peripheral regions have specific opportunities, based on their endogenous development strengths, to benefit from cohesion policy.

Key words: transport, cohesion policy, OP Transport, ROP Central Moravia

Anotace: Doprava představuje jeden ze základních prvků fungování současné společnosti. Mezi nejvíce diskutovaná témata v tomto směru patří výstavba a modernizace dopravní infrastruktury v širších souvislostech ekonomického rozvoje a podpora udržitelných forem dopravy. Do těchto dvou tematických oblastí je rovněž směřována podpora kohezní politiky Evropské unie pro rozvoj dopravy v České republice. V architektuře operačních programů České republiky jsou přitom rozhodující Operační program Doprava a regionální operační programy. A právě na analýzu projektů OP Doprava a prioritní osy Doprava ROP Střední Morava se zaměřuje tento článek. Hlavní závěry ukazují na preferenci nové výstavby dopravní sítě národního a nadnárodního významu před řešením otázky kongescí v hlavních urbánních prostorech. Z prostorového hlediska se jak v případě projektů OP Doprava, tak v případě ROP Střední Morava projevuje existence rozdílů mezi jádrovými a periferními oblastmi, kdy hlavní podíl projektů je lokalizován v blízkosti hlavních rozvojových center. Současně však bylo poukázáno na existenci specifických možností využití kohezní politiky v oblasti dopravy i v periferních regionech a to na bázi vnitřních rozvojových předpokladů.

Klíčová slova: doprava, kohezní politika, OP Doprava, ROP Střední Morava

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1. INTRODUCTION

Transport may be considered to be a cornerstone of current society. It determines spatial mobility and influences trade flows, the environmental impact of transport is widely discussed and a vast amount of public funds is allocated for transport (see e.g. Short and Kopp 2005). Consequently, transport themes and issues are firmly positioned on the political agenda. The relationship between transport infrastructure investments and economic development belongs to the most important of the themes. Lakshmanan (2010) mentions three ways of thinking in this regard. Microeconomic approach emphasises cost savings of firms, resulting from the transport infrastructure investments. The savings are based on a better accessibility of sites and on reduction of transport congestions. Macroeconomic modelling is interested in the impact of transport infrastructure investments on production capacity and productivity. Finally, wider economic impacts of transport infrastructure investments are considered important in the historical way of thinking. This approach claims that the investments stimulate interregional trade and market expansion. Consequently a large, extensive market enables specialization and economies of scale. Moreover, high-quality transport infrastructure may contribute to agglomeration economies from spatial concentration of economic factors.

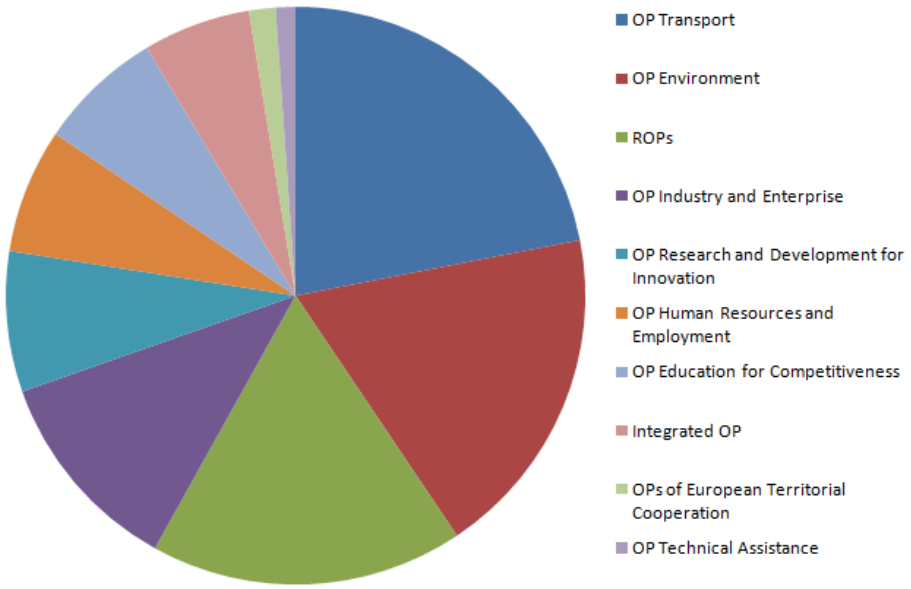
Sustainable transport is another prominent transport theme on the political agenda. Steg and Gifford (2010) regard the balance between economic, social and ecological qualities as the main feature of sustainable transport. Goldman and Gorham (2006) claim that sustainable transport may be understood in two ways, either as improving values or as a desirable final state of sustainable transport indicators. Pollutant emissions, fragmentation of countryside, noise intensity, security and accessibility indexes, or congestion frequency belong to the most often cited sustainable transport indicators (see e.g. Steg and Gifford 2010). Banister (2007) gives four basic characteristics of the sustainable transport paradigm. The first characteristic is connected with the best available technologies including modern operational systems (e.g. information systems for passengers). The second characteristic is focused on external costs of transport through regulations (e.g. systems of parking fees). The third characteristic is based on the idea of spatial planning along the mass transport corridors. The hierarchy of cities is considered in this regard. Mass transport terminals and separation of car transport from other transport modes are typical tools of the characteristic. Finally, the last characteristic recommends increasing awareness of sustainable transport principles.

Based on the abovementioned theoretical framework, transport infrastructure construction and sustainable transport represent important themes and issues for EU cohesion policy. Brömmelstroet and Nowak (2008) point at the increasing volume of financial means allocated for transport projects after the establishment of the Cohesion Fund in 1993. After their accession to the European Union in 2004, cohesion policy has provided funds for transport projects also in the Central European countries. Plaziak and Trzepacz (2008) claim that there is a correlation between underdeveloped transport infrastructure in peripheral regions on one side and the importance of cohesion policy for transport infrastructure

development in these regions on the other. Therefore, the aim of the article is to evaluate the position of transport in the thematic architecture of cohesion policy in the Czech Republic in the programming period 2007-2013. The article is structured as follows. The second chapter deals with the position of transport in the structure of Czech operational programmes. The third chapter analyzes selected characteristics of approved projects of Operational Programme Transport (OP Transport hereafter), with the state in May 2010. The fourth chapter complements the findings by an analysis of the same characteristics of the projects which were approved in the first priority axis Transport of the Regional Operational Programme Central Moravia (ROP Central Moravia hereafter) in 2007 and 2008. The final chapter summarizes.

2. TRANSPORT IN THE STRUCTURE OF CZECH OPERATIONAL PROGRAMMES IN THE PROGRAMMING PERIOD 2007-2013

The Czech Republic has a unique opportunity to benefit from cohesion policy in the period 2007-2013. The opportunity is connected with generous financial allocation from the EU funds for the Czech Republic in the total amount of 26.7 billion EUR. Thematically, the budget is distributed between eight sectoral operational programmes, seven regional operational programmes (ROPs hereafter), six operational programmes of the European Territorial Cooperation objective and two operational programmes designed for Prague. In this architecture of operational programmes, a relatively important position was given to transport.



Source: Own elaboration based on *Strukturální fondy EU – Programy 2007-2013*

Fig. 1 – Financial allocation between Czech operational programmes in the period 2007-2013

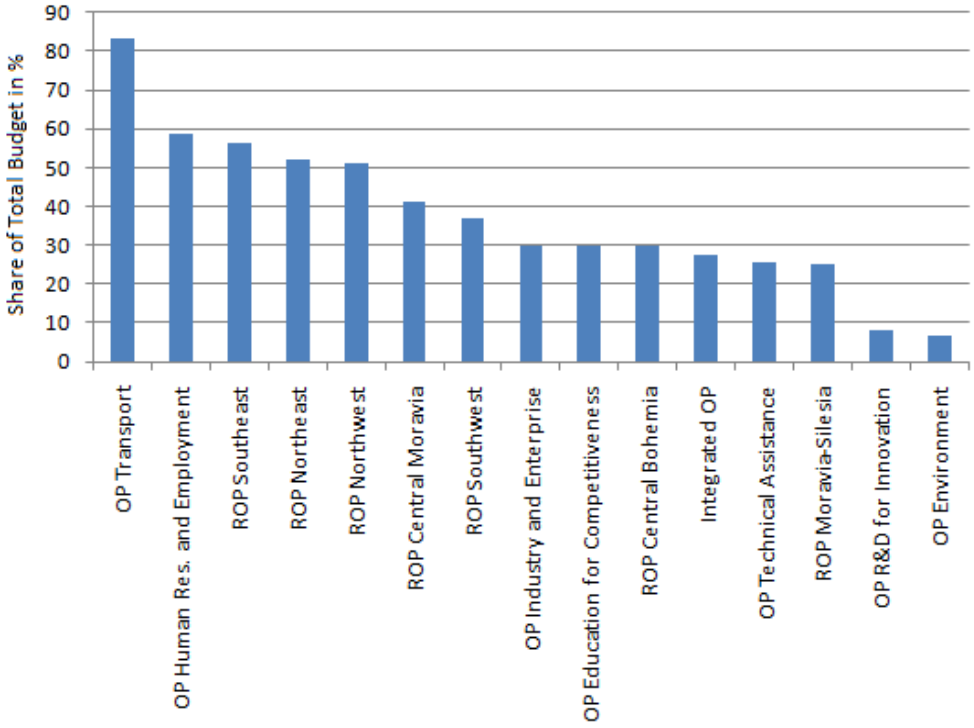
OP Transport represents the most important operational programme related to transport. Almost 5.8 billion EUR have been allocated from the EU funds in the seven year

programming period. It is noteworthy that OP Transport is the most generous Czech operational programme in the programming period 2007-2013 (see figure 1). Five specific goals of OP Transport cover national and transnational transport themes and issues. Seven ROPs play a complementary role when their one priority axis is oriented on regional transport interventions. Note that just the transport priority axes of ROPs are usually the best funded ones (see table 1). Finally, similar to ROPs, the Operational Programme Prague-Adaptability has a priority axis focused on transport on the territory of Prague. Other operational programmes (e.g. OP Technical Assistance) are only of a marginal importance for the theme.

Tab. 1 – Financial allocation of transport priority axes of ROPs in the period 2007-2013

ROP	Priority axis	Allocation of priority axis	Share of allocation in the total budget
Northwest	Accessibility and Transport Services	253 mil. EUR	35 %
Northeast	Transport Infrastructure Development	243 mil. EUR	37 %
Central Bohemia	Transport	233 mil. EUR	42 %
Southwest	Accessibility of Centres	276 mil. EUR	45 %
Southeast	Transport Accessibility	345 mil. EUR	49 %
Moravia Silesia	Regional Infrastructure and Accessibility	289 mil. EUR	41 %
Central Moravia	Transport	255 mil. EUR	39 %

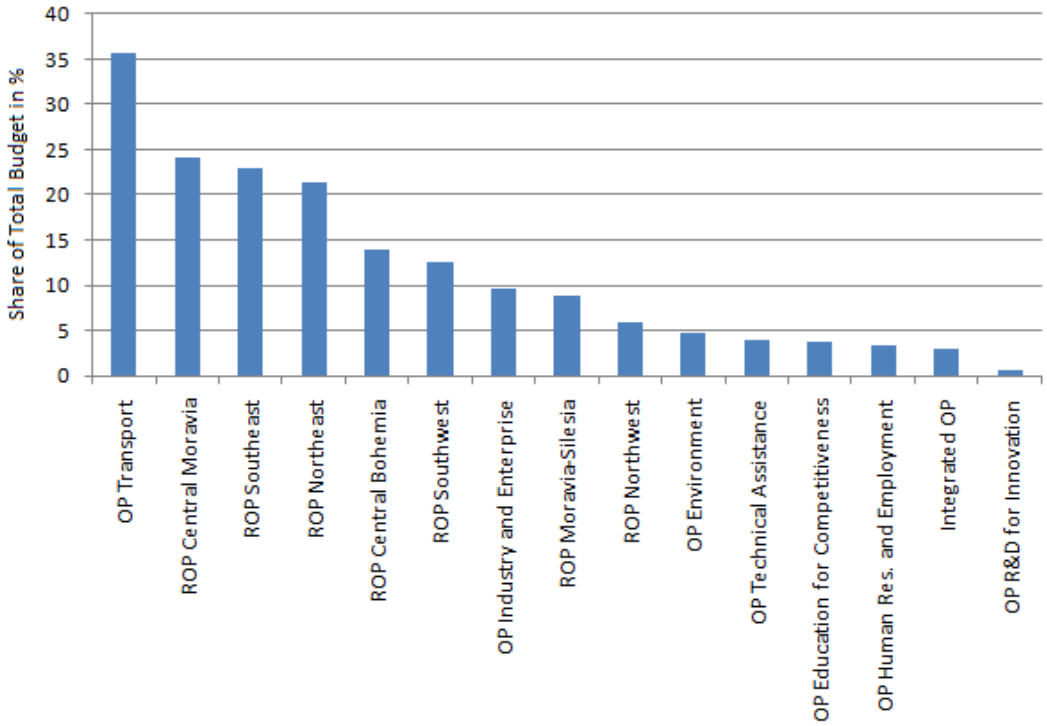
Source: Own elaboration based on *Strukturální fondy EU – Programy 2007-2013*



Source: MMR ČR (2010)

Fig. 2 – Share of approved funds in the total budget of particular operational programmes (state in April 2010)

The ability to implement the goals of operational programmes is another important question of cohesion policy in the Czech Republic. In this regard, a rather negative outlook in 2008 has been replaced by a dynamic approval process and payment of funds after 2009. In the mid 2010, the aggregate budget of all submitted projects is higher than the total financial allocation for the Czech Republic in the period 2007-2013 (MMR ČR 2010). However, there are differences between operational programmes in fund drawing. It is noteworthy that OP Transport and ROPs indicate the highest share of approved and paid funds in their total budgets between all operational programmes in the Czech Republic (see figures 2 a 3). The preparedness to draw the funds seems to be important in the context of the current economic crisis when transport infrastructure investments have an important employment aspect.



Source: MMR ČR (2010)

Fig. 3 – Share of paid funds in the total budget of particular operational programmes (state in April 2010)

3. ANALYSIS OF PROJECTS – OP TRANSPORT

OP Transport is the key development document related to cohesion policy in the transport sphere of the Czech Republic. Based on strengths and weaknesses of the Czech transport system, seven priority axes were formulated in the document. Two of them are focused on railway modernization (priority axes 1 and 3) and another two on highway and the first class road construction and upgrading (priority axes 2 and 4). The remaining three priority axes are oriented on subway and transport operational system development in Prague (priority axis 5), on multimodal freight transport and river transport development (priority axis 6) and on technical assistance (priority axis 7). Thus, transport infrastructure investments and modern operational systems are the main themes of OP Transport. More than 5.7 billion

EUR were allocated for OP Transport in the seven year programming period as the EC contribution from the Cohesion Fund (80 percent share of the contribution) and from the European Regional Development Fund (20 percent of the contribution). Moreover, approximately 1.0 billion EUR was added from national funds (MD ČR 2007). The distribution of the total budget from European and national funds between the priority axes is given in the table 2. The following text analyses the projects which were approved for financing from OP Transport with the state in May 2010 and which are listed in the public database of OP Transport (MD ČR 2010).

Tab. 2 – Distribution of the total budget from European and national funds between the priority axes of OP Transport

	Share of priority axes in the total budget of OP Transport
Priority axis 1 – Modernization and Development of the TEN-T Railway Network	38 %
Priority axis 2 – Construction and Modernization of the TEN-T Highway and Road Network	28 %
Priority axis 3 – Modernization of Railway Lines outside of the TEN-T railway Network	7 %
Priority axis 4 – Modernization of the First Class Roads outside of the TEN-T network	18 %
Priority axis 5 – Modernization and Development of Subway and Transport Operational Systems on the Territory of Prague	6 %
Priority axis 6 – Development of Multimodal Freight Transport and River Transport	2 %
Priority axis 7 – Technical Assistance	1 %

Source: MD ČR (2007)

The public database of OP Transport listed 112 approved projects in May 2010. More than 153 billion CZK were allocated for these projects from European and national funds. Note that the total budgets of the projects are higher by the value of applicants' co-financing. The highest number of approved projects was submitted in the priority axis 4 focused on upgrading of the first class roads outside of the TEN-T network (see table 3). Relatively high numbers of projects were approved also in the priority axis 1 focused on modernization and development of the TEN-T railway network in the Czech Republic, in the priority axis 6 focused on development of multimodal freight transport and river transport, and in the priority axis 7 focused on technical assistance. However, the highest shares of funds were allocated for projects approved in the priority axes 1 and 2. Thus, the TEN-T projects are financially relatively more demanding than the other thematic types of projects (see table 3).

Two organizations responsible for road (the Road and Motorway Directorate) and railway infrastructure (the Railway Infrastructure Administration) in the Czech Republic are the most frequent applicants of approved projects. Their dominant position is further reinforced with respect to the total amount of European and national funds allocated for the

projects (see table 4). Other applicants have substantially lower shares of the number of approved projects and of the total amount of funds allocated for the projects. Note that there is a close relationship between the applicant types and the priority axes of OP Transport. Thus, the Road and Motorway Directorate is the only applicant of approved projects in the priority axes 2 and 4 and the Railway Infrastructure Administration in the priority axes 1 and 3. Similarly, more than 98 % of approved projects in the priority axis 6 were submitted by the Waterway Directorate.

Tab. 3 – Share of priority axes of OP Transport in the number of approved projects and in the total amount of European and national funds allocated for the projects (state in May 2010)

	Share of the number of projects	Share of allocated funds
Priority axis 1	17 %	27 %
Priority axis 2	9 %	46 %
Priority axis 3	7 %	2 %
Priority axis 4	37 %	22 %
Priority axis 5	1 %	1 %
Priority axis 6	19 %	2 %
Priority axis 7	11 %	2 %

Source: Own elaboration based on MD ČR (2010)

Tab. 4 – Share of applicant types in the number of approved projects of OP Transport and in the total amount of European and national funds allocated for the projects (state in May 2010)

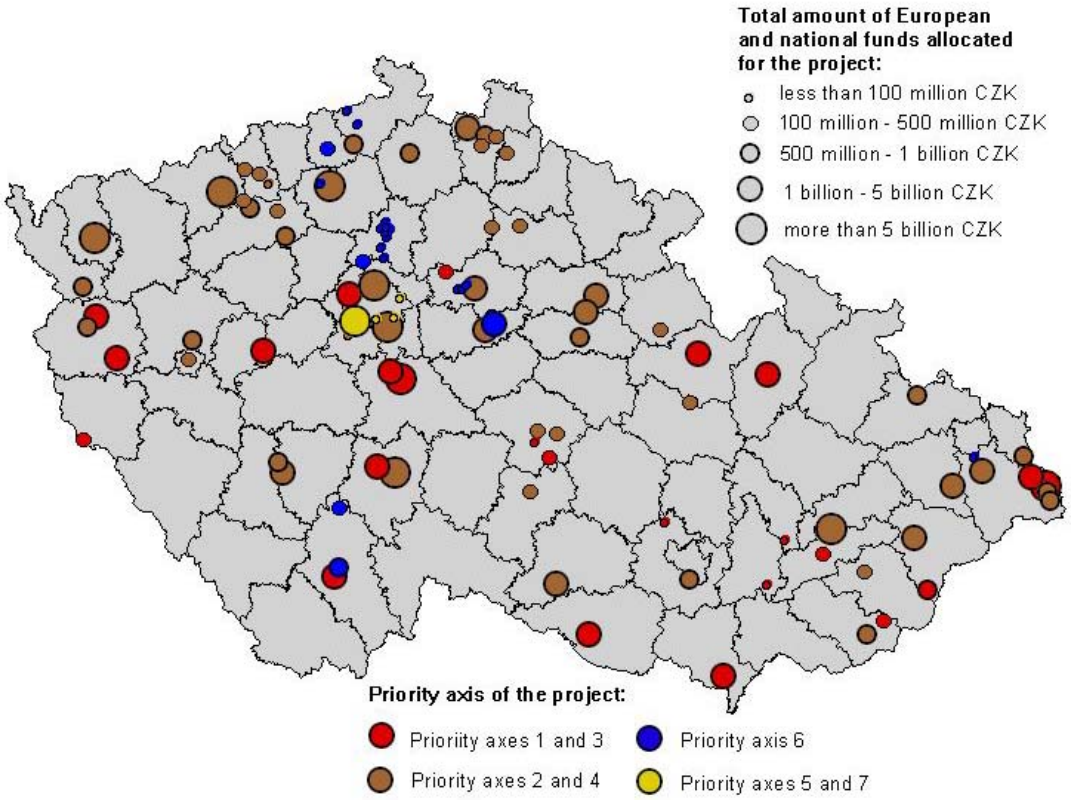
Applicant type	Share of the number of projects	Share of allocated funds
Road and Motorway Directorate	46 %	67 %
Railway Infrastructure Administration	24 %	30 %
Waterway Directorate	12 %	2 %
Other applicants	19 %	1 %

Source: Own elaboration based on MD ČR (2010)

Spatial impacts of approved projects of OP Transport are depicted in the figure 4. The main findings may be summarized as follows:

- Spatial location of approved projects is largely determined by the existing national and transnational transport networks.
- On the regional level, the highest number of approved projects and the highest share of the total amount of European and national funds allocated for the projects were concentrated in the Central Bohemia Region (21 percent of the number of approved projects and 17 percent of allocated funds), Ústecký Region (13 percent and 15 percent respectively), South Bohemia Region (7 percent and 14 percent respectively) and Moravia Silesia Region (8 percent and 10 percent respectively). On the contrary, the lowest shares of the both indicators are typical for the Olomoucký Region.

- Impacts of approved projects of OP Transport are spatially concentrated in main development centres of the Czech Republic. Periphery areas are underrepresented in this regard.



Note: Figure includes only the projects with local impacts
Source: Own elaboration based on MD ČR (2010)

Fig. 4 – Spatial impact of approved projects of OP Transport

4. ANALYSIS OF TRANSPORT PROJECTS - ROP CENTRAL MORAVIA

ROP Central Moravia is the key development document of the cohesion region Central Moravia which consists of the Olomoucký and Zlínský Region. Based on strengths and weaknesses of the cohesion region four priority axes were formulated in the document. Besides integrated development (priority axis 2), tourism (priority axis 3) and technical assistance (priority axis 4), transport is the theme of the first priority axis. More than 657 million EUR were allocated for ROP Central Moravia in the period 2007-2013 as the EC contribution from the European Regional Development Fund, with more than 116 million EUR added from state budget (RR RS STŘEDNÍ MORAVA 2007). Table 5 shows the distribution of the total budget from European and national funds between the priority axes of ROP Central Moravia. The important position of the transport theme is noteworthy.

The specific objective of the priority axis Transport is to ensure efficient, flexible and safe transport infrastructure and reliable, integrated, high-quality public transport services in the cohesion region (RR RS STŘEDNÍ MORAVA 2007). Three intervention areas were defined to fulfil the specific objective. The intervention area 1.1 Regional Transport

Infrastructure is focused on modernization of the second and third class roads, the intervention area 1.2 Public Transport on regional integrated transport systems, and the intervention area 1.3 Motorless Transport on bikeway construction. Six calls to submit project proposals in the priority axis Transport were announced so far. Three of them were concerned with the intervention area 1.1 (September 2007, April 2008, September 2009), one of them with the intervention area 1.2 (February 2008) and the remaining two of them with the intervention area 1.3 (December 2007, September 2009). The following text analyses the projects which were approved in the four calls in the years 2007 and 2008. Internal data of the Office of the Regional Council of the Central Moravia Cohesion Region are the main source of information for the analysis.

Tab. 5 – Distribution of the total budget from European and national funds between the priority axes of ROP Central Moravia

	Share of priority axes in the total budget of ROP Central Moravia
Priority axis 1 - Transport	39 %
Priority axis 2 - Integrated Development	39 %
Priority axis 3 – Tourism	19 %
Priority axis 4 – Technical Assistance	3 %

Source: RR RS STŘEDNÍ MORAVA (2007)

In the abovementioned calls, 93 transport projects were approved with more than 2.7 billion CZK allocated for these projects from European and national funds. Note that the total budgets of the projects are higher by the value of applicants' co-financing. The highest number of approved projects was submitted in the intervention area 1.1 (53 percent of the total number of projects). The shares of the remaining two intervention areas are lower, with 34 percent of projects submitted in the intervention area 1.3 a 13 percent in the intervention area 1.2. Note that the intervention area 1.1 has a share of almost 70 percent in the total amount of European and national funds allocated for the projects. The thematic structure of approved projects is given in table 6. Thus, modernization of the second and third class roads is the most frequent thematic focus of the projects. Moreover, this type of projects is financially relatively more demanding than other thematic types of projects, such as bikeway construction or modernization of mass transport stop systems.

Tab. 6 – Share of thematic focus in the number of approved transport projects of ROP Central Moravia and in the total amount of European and national funds allocated for the projects

Thematic focus	Share of the number of projects	Share of allocated funds
Modernization of the second and third class roads	38 %	58 %
Bikeway construction	34 %	19 %
Modernization of crossroads, bridges and other point features	15 %	12 %
Modernization of mass transport stop systems	9 %	1 %
Construction of mass transport terminals	4 %	10 %

Source: Own elaboration based on internal data of the Office of the Regional Council of the Central Moravia Cohesion Region

Municipalities are the applicant type with the highest number of approved projects. However, the share of municipalities in the total amount of European and national funds allocated for the projects is substantially lower (see table 7). This fact indicates financially less demanding projects realized by municipalities, thematically focused on bikeway construction (62 percent of all approved projects realized by municipalities) and modernization of mass transport stop systems. Note that municipalities are the only applicants of the projects oriented on the construction of mass transport terminals. Besides municipalities, Olomoucký Region, the Road Infrastructure Administration of the Olomoucký Region and the Road Directorate of the Zlínský Region are the second important group of applicants of approved projects. Modernization of the second and third class roads and modernization of crossroads, bridges and other point features are the typical types of projects realized by the two organizations.

Tab. 7 – Share of applicant types in the number of approved transport projects of ROP Central Moravia and in the total amount of European and national funds allocated for the projects

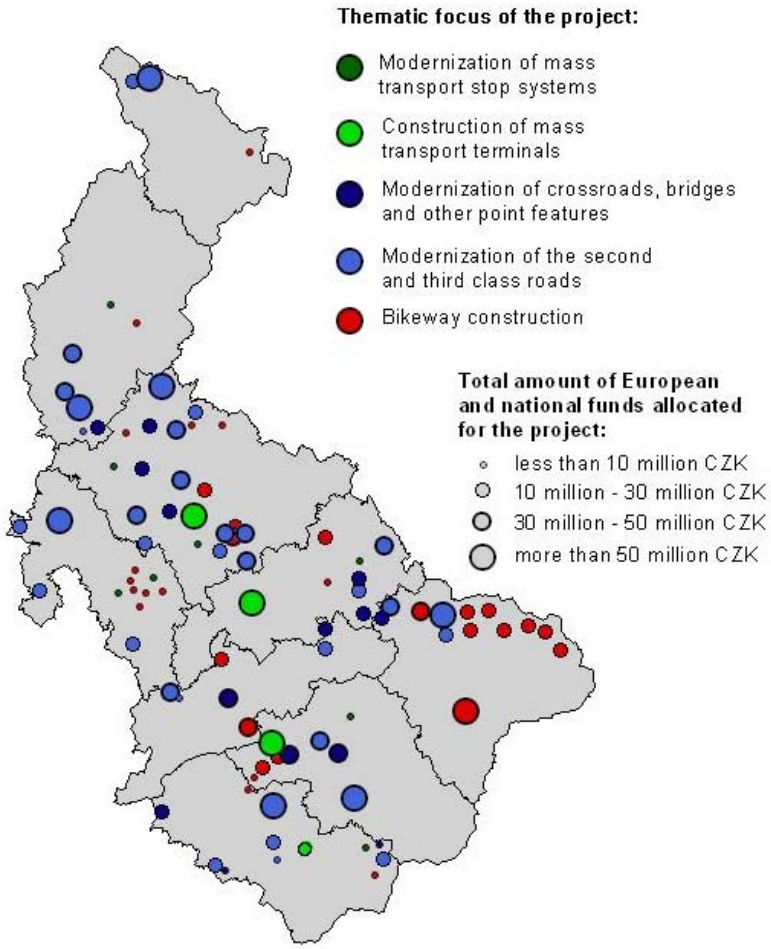
Applicant type	Share of the number of projects	Share of allocated funds
Municipalities	51 %	29 %
Olomoucký Region	15 %	28 %
Road Infrastructure Administration of the Olomoucký Region	15 %	23 %
Road Directorate of the Zlínský Region	15 %	15 %
Other applicants	4 %	4 %

Source: Own elaboration based on internal data of the Office of the Regional Council of the Central Moravia Cohesion Region

Spatial impacts of approved transport projects of ROP Central Moravia are depicted in the figure 4. The main findings may be summarized as follows:

- On the regional level, the highest number of approved projects and the highest share of the total amount of European and national funds allocated for the projects were concentrated in the Olomouc region (24 percent of the number of the approved projects and 14 percent of allocated funds). Relatively low values of the indicators in the Zlín region may be explained by different settlement systems of the Olomoucký a Zlínský Regions. Other regions have similar values of the indicators with an exception of the Jeseník region.
- There are differences in spatial impacts of approved transport projects of ROP Central Moravia between main development centres and periphery areas of the cohesion region. Thus, periphery areas are underrepresented in this regard. This fact may be identified in the northern part of the Olomoucký Region but also in the western part of the Zlínský Region.

- Note that construction of mass transport terminals is concentrated in the most important transport nodes in the cohesion region (Olomouc, Přerov, Otrokovice) and that bikeway construction is overrepresented in the mountainous parts of the Vsetín region.



Source: Own elaboration based on internal data of the Office of the Regional Council of the Central Moravia Cohesion Region

Fig. 5 – Spatial impact of approved transport projects of ROP Central Moravia

5. CONCLUSION

Transport may be considered to be a cornerstone of current society. Nowadays, transport infrastructure investments and sustainable transport belong to the most often discussed transport themes and issues. And just on these two themes EU cohesion policy is oriented in the Czech Republic, with a decisive role of OP Transport and ROPs in the structure of Czech operational programmes. Our analysis of the transport projects financially supported by OP Transport and ROP Central Moravia provides the following conclusions:

- As the allocation of funds indicates, construction of new transport infrastructure is preferred to the development of sustainable urban transport systems (compare with Short and Kopp 2005).

- The total amount of funds allocated for highway and road networks is higher than the total amount of funds allocated for railway networks. This is in contrast to the situation in Western European countries (compare with Short and Kopp 2005).
- Spatially, there are disparities between core and peripheral regions of the Czech Republic when the decisive share of funds is allocated close to the main development centres (compare with the same finding for Poland in Plaziak and Trzepacz 2008).
- However, also peripheral regions have specific opportunities, based on their endogenous development strengths, to benefit from cohesion policy. The analysis showed the potential of the mountainous part of the Vsetín region in bikeway construction.

OP Transport and ROPs are characteristic by a fast speed of fund drawing, compared with other operational programmes. A straightforward structure of applicants may be a piece of explanation. There is only limited number of applicants in the most important priority axes. Thus, a lack of experience does not seem to be a problem in this regard and we may expect that the total fund allocation for the seven year programming period will be drawn. But which opportunities will cohesion policy offer in the programming period 2014-2020? Will Czech Republic be allowed to draw funds from the most generous financial tools - Cohesion Fund and the Objective 1 financial mechanisms? What will be the impacts of current economic crisis not only on the total budget of cohesion policy but also on its rules? And so altogether, will cohesion policy stay the most important tool of transport development in the Czech Republic? These are only some questions which will influence the relationship between cohesion policy and transport development in the new programming period.

REFERENCES

[1] BANISTER, D. The sustainable mobility paradigm. *Transport Policy*, 2005, vol. 15, no. 2, p. 73-80. ISSN 0967-070X.

[2] BRÖMMELSTROET, M., NOWAK, T. How a court, a commissioner and a lobby group brought European transport policy to life in 1985. *GeoJournal*, 2008, vol. 72, no. 1-2, pp. 33-44. ISSN 0343-2521.

[3] GOLDMAN, T., GORHAM, R. Sustainable urban transport: four innovative directions. *Technology in Society*, 2006, vol. 28, no. 1-2, pp. 261-273. ISSN 0160-791X.

[4] LAKSHMANAN, T. R. The broader economic consequences of transport infrastructure investments. *Journal of Transport Geography*, 2010, in press. ISSN 0966-6923.

[5] MD ČR. *Operační program Doprava na léta 2007-2013.* Praha: Ministerstvo dopravy, 2007. 162 s.

[6] MD ČR. *Databáze schválených projektů OP Doprava* [online]. [cit. 2010-05-20]. Dostupné z <http://www.opd.cz/Modules/OpdProject/Pages/ProjectList.aspx>

[7] MMR ČR. *Měsíční monitorovací zpráva o průběhu čerpání strukturálních fondů, Fondu soudržnosti a národních zdrojů v programovém období 2007-2013.* Praha: Ministerstvo pro místní rozvoj, 2010. 89 s.

[8] PLAZIAK, M., TRZEPACZ, P. Spatial distribution of EU structural funds in Poland in 2004-2006 – factors, directions, and limitations. *Bulletin of Geography. Socio-Economic Series*, 2008, no. 9, p. 33-46. ISSN 1732-4254.

[9] RR RS STŘEDNÍ MORAVA. *Regionální operační program regionu soudržnosti Střední Morava 2007-2013*. Zlín: Regionální rada regionu soudržnosti Střední Morava, 2007. 176 s.

[10] SHORT, J., KOPP, A. Transport infrastructure: investment and planning. Policy and research aspects. *Transport Policy*, 2005, vol. 12, no. 4, p. 360-367. ISSN 0967-070X.

[11] STEG, L., GIFFORD, R. Sustainable transportation and quality of life. *Journal of Transport Geography*, 2010, vol. 13, no. 1, pp. 59-69. ISSN 0966-6923.