

# Prague Metropolitan Region

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### Information about the CENTRAL EUROPE programme

CENTRAL EUROPE is a European Union programme that encourages cooperation among the countries of Central Europe to improve innovation, accessibility and the environment and to enhance the competitiveness and attractiveness of their cities and regions.

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The programme is financed by the European Regional Development Fund (ERDF) and it runs from 2007 to 2013. Interested partnerships were invited to propose their projects following public calls for proposals, which were widely publicised.

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# PRAGUE METROPOLITAN REGION

## 1 Objective of the study

The objective of this study is to describe and evaluate the relations between the City of Prague (core city) and the surrounding Central Bohemia region, to identify strong and weak points of the cooperation between both parts of the Prague metropolitan region and propose possible ways and measures for their improvement.

## 2 Method and main sources of information

This expert study is mostly based on the secondary analysis of the studies and programme documents prepared by the Strategic Planning Department of the City Development Authority Prague between 2000 and 2013 and on the results of the international projects this department participated in.

The main sources are the following:

- ◆ Prague Strategic Plan (2008 update) and related documents
- ◆ IM-PLAN project - Co-operative planning processes in European metropolitan regions (2001)
- ◆ Prague contributions to the OECD “Rural-Urban Linkages in Functional Regions” study (2013)
- ◆ ESPON project POLYCE – Metropolisation and Polycentric Development in Central Europe, Final Report (2013)
- ◆ Martin Ouředníček, The Suburbanisation of Prague, the article published in the thematic issue of the Czech Sociological Review, Volume 39, 2003
- ◆ Data from the Czech Statistical Office (tables without other sources indicated), interviews, etc.\*

*\* In some parts of the study, relevant information or data concerning the whole Prague metropolitan region, and sporadically the Central Bohemia region, were not available.*

Some phenomena described in the study can be interpreted from different points of view. The issues perceived as negative from the perspective of Prague, can be considered as positive by its regional background (e.g. migration of young people from Prague to Central Bohemia region). Since the author of the study was responsible for the preparation of strategic conceptions of Prague for many years, his judgment will be partly based on Prague’s perspective.

## 3 General characteristics of the Prague metropolitan region

The Prague metropolitan region, consisting of the capital of Prague and part of Central Bohemia region, is currently the most dynamic and effective region of the Czech Republic. It has undergone a successful transformation from centrally controlled to market economy and now represents a national centre of knowledge industry. The education of its inhabitants exceeds the average. It is attractive both for foreign

investors and immigrants. The core city of Prague is an important European cultural centre nowadays well accessible both by air and road transport.

The collaboration of the two self-governing territorial units of the region, however, is not what it could and should look like, which creates a number of problems and barriers to further development.

### 3.1 Territory and its zoning

The territory of the Prague metropolitan region is not clearly defined in any official document, the views of its delimitation, therefore, vary. It is based on the administrative borders of the municipalities included in it, mainly on the basis of the intensity of commuting to work, services, leisure time activities, accessibility by transport, etc. Apart from the core city, Prague-east and Prague-west regions are also placed into this category, representing thus the territory of the most intensive mutual relations, for the purposes of this study indicated as “Prague sub-urban zone”.

According to specialized literature, the Prague metropolitan region also covers the so called Prague agglomeration defined as Prague, two adjacent districts, and other municipalities of Central Bohemia region whose connection to Prague is not as close as in the Prague sub-urban zone. The territory of Prague agglomeration, however, is not officially delimited either.

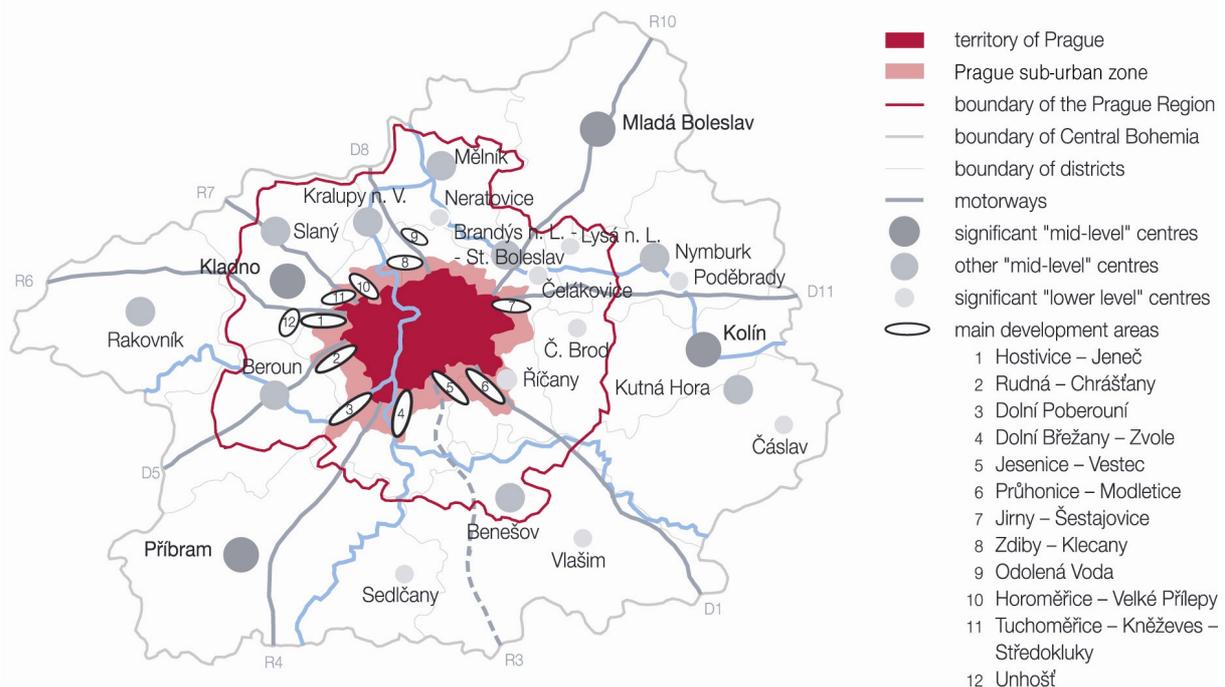
Both Prague sub-urban zone and Prague agglomeration are often identified with the Prague functional region.

In many places of this study, the data for Prague, i.e. the core of the agglomeration, are compared with the data valid for the whole Central Bohemia region.

The mutual relations of these territorial categories are evident from the map below.

Figure 1

#### CITY OF PRAGUE AND CENTRAL BOHEMIA REGION



The interconnection of both the territories is based on long-term mutual relations formed by common settlements, rulers, and trade routes in the past.

Prague is the smallest region in the Czech Republic (less than 500 km<sup>2</sup>), Central Bohemia is the largest (more than 11 000 km<sup>2</sup>, i.e.14% of country area).

The characteristic features and internal relations of the whole area can be summed up as follows:

**City of Prague** (core city) – capital of the Czech Republic and a natural centre of the region, providing a range of quality services in the field of administration, education, health, culture, information science, finance, consultancy, advertising, etc. to Central Bohemia and the whole Czech Republic; a major source of work opportunities with a declining industrial base, and an area noted for its architectural and urban heritage - its historic centre has been registered on the UNESCO list of world sites - and a thriving tourist industry.

**Prague sub-urban zone** (Prague West and Prague East districts - cultivation of vegetables, fruit and sugar beet, decline in coal mining and metallurgy at Kladno, most important source of labour force for Prague, an exceptional number of individual recreation buildings, family house construction, and extensive business and logistical capacities alongside the routes leading to Prague.

**The south and south-west** – predominantly woodland, cultivation of corn and potatoes, scattered industry and mining, no prominent centres, an area of interest for tourists, hydroelectric power plants, sources of drinking water.

**The north-east** – excellent conditions for agriculture, recreation and spas, and industry concentrated alongside the Labe and Jizera rivers – esp. engineering, chemical plants and food industry.

Table 1

**POPULATION AND DENSITY IN 2012 (inhabitants per km<sup>2</sup>)**

	Territory			
	Prague	Prague sub-urban zone	Central Bohemia region	Prague + Central Bohemia region
<b>Number of inhabitants in 000s</b>	1 246.8	283.9	1 291.8	2 538.6
<b>Area in km<sup>2</sup></b>	496.4	1 170.4	11 014.6	11 511
<b>Population density/per km<sup>2</sup></b>	2 513	214	117	221

The core of metropolitan region, i.e. Prague is a highly urbanized territory (especially the so called compact city) with an average density exceeding 2 500 inhabitants per km<sup>2</sup>. Due to the fact that in 1968 and 1974, a large number of neighbouring municipalities were incorporated into Prague under the centrally-imposed directive (the total of 300 km<sup>2</sup>), the density of the settlement along both sides of the city borders is substantially lower.

The most dynamic process of commercial and residential sub-urbanisation is taking place in areas contiguous to Prague, where new housing projects are being developed predominantly for residents of Prague.

### 3.2 Population

Prague and Central Bohemia are the two most populated regions in the Czech Republic (more than 1.25 million each) of identical demographic development, i.e. above-average increase in population.

Table 2

#### POPULATION DEVELOPMENT\* IN 1990–2011 (in 000s)

	1990	1995	1997	2001	2012
<b>Prague</b>	1 214.2	1 209.9	1 200.5	1 164.7	1 246.8
<b>Prague sub-urban zone</b>	169.7	169.8	168.4	181.3	283.9
<b>Central Bohemia region</b>	1 112.9	1 108.1	1 105.5	1 123.9	1 291.8
<b>Prague + Central Bohemia region</b>	2 327.1	2 318.0	2 306	2 288.6	2 538.6

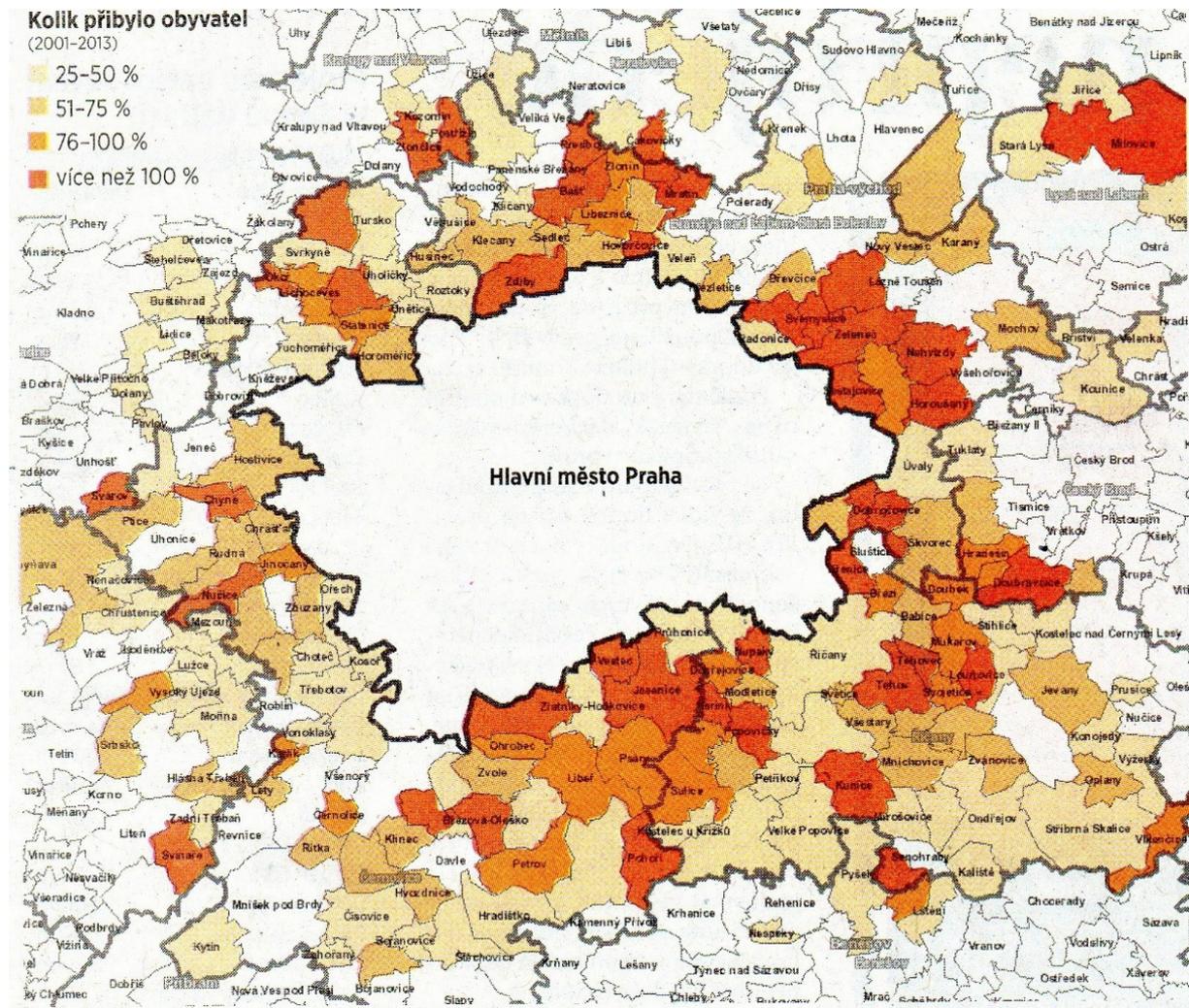
\* Permanent residents only

Whereas in Prague, i.e. the core of metropolitan region in 1990–2012, there was less than 3% increase in the number of inhabitants, in the Central Bohemia region, it was 16%. The highest growth, i.e. by 67% was registered in Prague sub-urban zone.

The increase of population in Central Bohemia was mainly caused by the immigration from Prague to its vicinity, i.e. to metropolitan region (in 2013, the migration balance was + 9 226 persons in Central Bohemia).

Figure 2

**MUNICIPALITIES IN PRAGUE HINTERLAND WITH THE HIGHEST GROWTH OF INHABITANTS IN 2001–2013**



Migrating population are mainly young people looking for individual forms of housing, which is reflected in the development of the population age structure. Whereas in 2012, the proportion of persons in productive age (15–63 years) was approximately the same in both parts of metropolitan region (about 68%), in Prague compared to Central Bohemia region there were fewer children under 15 years (13.7%) and more seniors (17.6% at the age of 65 and over). This causes problems in the Prague labour market and increases the need to take care of the oldest categories of seniors. Owing to the bad age structure of Prague population, these problems may be even worse in the future.

Table 3

**AGE STRUCTURE (IN 000S OF INHABITANTS)**

Age category	Prague		Central Bohemia region	
	2001	2012	2001	2012
<b>14 and under</b>	153.2	170.3	176.9	209.4
<b>15–64</b>	819.6	856.5	787.1	878.5
<b>65 and over</b>	187.3	220.0	160.0	204.0

(As to December 31<sup>st</sup>)

Almost half of all foreigners in the Czech Republic live in Prague and Central Bohemia (Prague: 163 thousand, Central Bohemia: 57 thousand, 19 thousand of whom in the vicinity of Prague).

### 3.3 Economy

Prague metropolitan region is the leading region in the Czech economy. Prague itself generates the whole quarter of the gross domestic product of the Czech Republic. In its territory and in the Central Bohemia region, a number of very successful companies operate especially in finance, telecommunications, services, and automotive industry. Since Prague's GDP per 1 inhabitant reaches almost 170% of the European Union average, it is considered to be one of the richest regions of the whole EU.

Table 4

**GROSS DOMESTIC PRODUCT (GDP) IN 2000 AND 2012**

	Contribution to CR in %	Per inhabitant CR=100	Per inhabitant in EUR EU28=100	Per inhabitant in PPS EU28=100
<b>Prague - year:</b>				
<b>2000</b>	22.5	195.6	64.0	139.0
<b>2012</b>	24.7	208.5	125.0 (2011)	168.9
<b>Central Bohemia region – year:</b>				
<b>2000</b>	10.4	95.6	31.0	68.0
<b>2012</b>	10.9	89.0	53.0 (2011)	72.1

The economy of the core of the metropolitan region being mostly tertiary with prevalence of services, science, research and education, Central Bohemia region is dominated by industrial production and construction industry.

Table 5

**EMPLOYMENT STRUCTURE ACCORDING TO SECTORS IN 2012 (in %)**

Sector	Prague	Central Bohemia region
Agriculture and forestry	0.3	3.4
Industry and construction	18.1	39.1
Retail and transport	26.5	27.7
Services to companies	31.1	12.3
Other activities	5.5	3.7
Administration, social, health care, education	18.6	13.9

(National accounts, proportion of employment in the territory)

The education and qualification of employees in the Prague metropolitan region is much higher than the average of the Czech Republic. It holds true especially in Prague where the proportion of employees with university or college education reaches almost 40 %.

Table 6

**EDUCATIONAL ATTAINMENT OF EMPLOYEES IN 2012 (employees – residents in the region in %)**

Education	Prague	Central Bohemia region
Basic, secondary vocational	20.9	39.9
Secondary	39.9	40.3
University	39.2	19.8

The high economic performance of the city projected itself in the low unemployment rate even at the time of global economic recession (3.5 in Prague in 2013). Abundant supply of job opportunities in Prague has decreased the unemployment rate also in the Central Bohemia region (to 5.3), which is much less than in the other regions of the Czech Republic, especially in the regions of Northern Bohemia and Moravia, and represents the second lowest rate of unemployment in the Czech Republic.

Table 7

**UNEMPLOYMENT IN 2013**

	Prague	Central Bohemia region	Prague sub-urban zone
General unemployment rate - ILO	3.5	5.3	2.6
Unemployed persons – total (in 000s)	44.9	61.7	7.9
Share of unemployed (from age 15–64)	5.1	6.9	3.9

### 3.4 Public administration

Both territories, i.e. Prague and Central Bohemia region have a complex structure of local administration, the administrative units showing significant differences in population, size of the area, and economic performance.

As a result of the historical development of regional administration and the density of settlement, the Czech Republic holds a unique position in Europe with a high number of municipalities (6 200) and segmentation of its internal administration. Prague (statutorily defined as a single municipality) is divided into 57 self-governing entities (with their own elective bodies); 4 of them have a population of more than 100 000, the smallest one of only 250. In the entire Central Bohemia region, divided into 12 districts, there were 1 147 municipalities in 2013, the smallest of which had a population of 25, the largest of 68 000.

Co-ordination of the local administration in the Prague metropolitan region has not been sufficiently developed. There is absence of a stable organizational structure that would allow for complex solutions to mutual relations.

*Administrative arrangement and mutual relations between Prague and Central Bohemia region have been described and analysed in greater detail in OECD study "Rural-Urban Partnerships: Case Studies" (Part II. Chapter 8. Czech Republic: Prague-Central Bohemia), 2013.*

### 3.5 Cooperation between Prague and Central Bohemia region

The cancellation of the old regional administration after the Velvet Revolution put an end to the interactive activities of the former institutional structures between Prague and former Central Bohemia region. Partial contacts were only kept between municipalities in the bordering areas. At present, contacts are being renewed by the new regional self-government as a prerequisite to the future cooperation and necessary co-ordination in the development of both regions (especially in the fields of transport, economy, employment, and education). Special emphasis is placed on the cooperation with administrative bodies in Prague sub-urban zone (Prague-East and Prague-West regions).

### 3.6 Strengths, problems and weaknesses

#### Prague metropolitan region - positives

- Prague represents an extraordinary source of job opportunities for its vicinity. There were 122 thousand commuters from Central Bohemia to Prague (i.e. ¾ of all commuters) in 2012, including approximately 55 thousand people from the metropolitan region.
- Such a volume of job supply has the following benefits for the residents of metropolitan region:
  - low unemployment rate (significantly below the Czech Republic average),
  - above-average wages,
  - high disposable household incomes (apart from Prague, the Central Bohemia is the only region in which they exceed national average) which positively influence the standard of living.

- The possibility of job commuting and an increase in the standard of living are reflected in the most intense housing construction in the metropolitan region in the Czech Republic during the last decade. There were 2.3 thousand apartments completed in 2013, i.e. 44% of all completed apartments in Central Bohemia and about 9% in the whole country (24% including Prague).
- Metropolitan region represents a major concentration of vacation houses (and similar recreational objects) owned by Prague residents and is a place for their short-term recreation.
- Good transport accessibility allows residents of the metropolitan region to easily participate in the exceptional cultural, sports and social events offered by Prague.
- Solution of the common public transport – Prague Integrated Transport.

#### **Prague metropolitan region – problems and negatives**

- Rapid suburbanization (both within and outside Prague borders) is not properly controlled as a process relating to both territories. New construction took place mainly in the form of isolated projects without anticipating its consequences and impacts.
- Insufficient co-ordination caused irreversible disruptions of high quality agricultural land.
- Passive approach of administrative bodies resulted in poor co-ordination to secure living conditions for residents, e.g. in school commuting, heavy traffic load, agreements on certain important facilities (airport access, etc.).
- Metropolitan region is draining young people from Prague; Prague has the highest old-age index as against Central Bohemia which has the lowest.
- Some districts that have become part of Prague in the course of time (namely in 1974) still retain their rural nature and their integration into the city is therefore illogical. It would be more suitable if they were developed in coordination with similar municipalities in Prague's vicinity.
- Lack of co-ordination in tourism-related activities and the absence of common approach to promotion.
- Political aspects of relations between Prague and Central Bohemia are blocking a practical need for their mutual cooperation.

## **4 Evaluation of the most important spheres of regional interrelations**

### **4.1 Transportation**

#### **Public transport**

Prague Integrated Transport (PIT) is a well-established transport system consisting of the public city transport (metro, trams and buses operated by public or private operators) and of suburban public transport which is provided by railway transport and suburban buses (mostly operated by private operators). This system integrates 308 municipalities in the region (2013), involving also P&R, B&R and K&R. The integration is based on joint organization, provision of transport information, and common fare conditions.

### **Car transport**

Prague and Central Bohemia have the most dense and most used transport network in the country and all land routes originating in Prague lead through Central Bohemia. Intensive commuting to Prague by cars results in further pressure on the already overloaded road network.

### **Transportation – positives**

- The use of the public transport by inhabitants and visitors of Prague is very extensive.
- Long-term fare is quite cheap (time coupons).
- High speed of transport on major routes (metro, main suburban railway tracks).
- High density of railways network in the territory of the city and surrounding region.
- Considerable proportion of rail transport within PIT (metro, trams, railways).
- The city centre and other important sub-centres are served by rail transport.

### **Transportation – problems and negatives**

- In many places Prague Integrated Transport and Central Bohemian integrated transport overlap and complement each other even though they do not have common organization or unified fare tickets.
- Some buses (run by private operators) providing connection between Prague and some of the regional centres in Central Bohemia (Kladno, Mělník, Beroun) are not incorporated in PIT. This is mainly the case with the most attractive bus lines which offer good price and high-speed connection.
- Frequent irregularities in the operation of suburban railways.
- Worsening of the position of the public transport due to suburbanization (the use of cars by new residents in municipalities of Central Bohemia region).
- Lack of suburban transport terminals in the southern and north-western sectors in the proximity of Prague boundaries (connected to the extended metro lines).
- Prague main road network has not been finished yet, especially both rings (inner and outer).
- Missing rail access to the Prague airport.

## **4.2 Land-use, environment and waste management**

Even though a significant part of its territory is agricultural land, Prague with its surrounding is not a typical agricultural region. In 2012, the share of agricultural land in the total area of the core city was 40.6% and the share of persons employed in agriculture only 2.5% of all employees in Prague. Roughly three quarters of the agricultural land in Prague is arable land. In Central Bohemia, agricultural land covers 60% of the whole region.

Built-up areas in Central Bohemia only occupy 2%, whereas in Prague it is 10%.

Table 8

**LAND USE (in km<sup>2</sup>)**

	Prague	Prague sub-urban zone	Central Bohemia region	Prague + Central Bohemia region
<b>Total area</b>	496.4	1336.0	11 014.6	11 511.0
<b>of which:</b>				
- agricultural land	201.4	820.3	6 624.9	6 826.3
- non-agricultural land (total)	295.0	515.3	4 390.6	4 685.6
<b>of which:</b>				
- woodland	51.2	330.2	3 061.6	3 112.8
- built-up areas	49.9	36.4	215.3	265.2

**Waste**

The City of Prague operates the entire city territory including complete system of sorting of municipal waste. The advantage of the Prague waste management is that approximately 75% of mixed municipal waste is energetically used in the Waste-to-Energy Facility in Malešice.

The city territory only provides limited opportunities for the development of waste management facilities. It is therefore in the interest of Prague to closely cooperate with the Central Bohemia region on the projects that would use locations in the Central Bohemia region for investment in the facilities (such as composting plants, biogas plants, after-sorting lines, car-wreck processing sites, etc.) and for common waste management.

**Energy**

In 2010, the consumption of natural gas (for local heating, water heating system, and technology) exceeded 40% of the total Prague energy consumption, which made natural gas its main source of energy. The second most used is electricity (35%), the third heat from the networks of centralized heat supply (20%). Over 60% of energy from this network comes from the Central Bohemia Region (from the Mělník I Power Plant).

Prague has problems with high energy consumption of housing stock and the objects in its possession.

**Air**

Over the last twenty years, emissions of sulphur dioxide and suspended particulates have markedly dropped in Prague. A decrease in other monitored pollutants has been less significant, especially the negative effects of automotive traffic persist.

In Central Bohemia region, with the exception of the surroundings of some local emission sources (Mělník Power Station, chemical production in Spolana Neratovice, and others), air pollution is significantly lower.

Table 9

**MEASURED EMISSIONS OF POLLUTANTS IN 2011 (tonnes/year/km<sup>2</sup>) (REZZO 1–4)\***

Area	Solid fuels	SO <sub>2</sub>	NO <sub>x</sub>	CO
Prague	5.9	1.8	18.0	35.7
Central Bohemia Region	0.9	2.1	3.1	4.4
Czech Republic	0.7	2.2	2.9	4.8

\* Includes emissions from livestock rearing and from construction activities

### Greenery

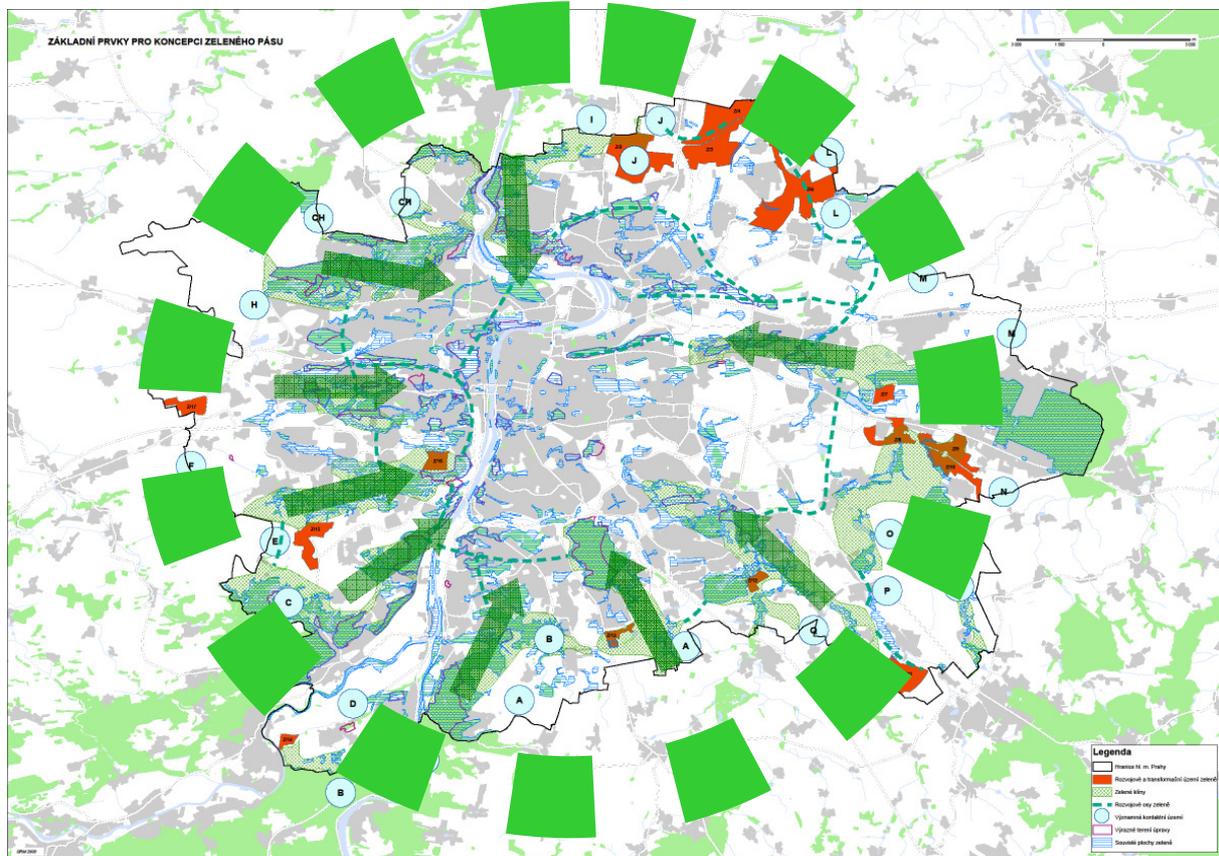
Green areas are of varied quality, covering about one third of Prague area (apart from arable land). Reduction and disproportional distribution of green areas have a negative impact on the microclimate, biodiversity, water regime, and recreational and aesthetic functions of the city's environment. The loss of greenery causes problems mainly in the centre and densely populated areas of the city which have an acute need for its softening effect.

In Central Bohemia region, where almost one third of the whole territory is covered by woodland (compared to 10% in Prague), the situation is much better. Even here, however, due to extensive and uncoordinated sub-urbanization, green areas are lost and landscape fragmentation occurs, with subsequent deterioration of its ecological and recreational functions.

In order to reduce the spread of uncontrolled construction in the open countryside and connect Prague greenery with environmentally stable landscape segments in the neighbouring districts of Central Bohemia region, the project Green Belt around the City is being implemented. Its objectives are particularly planting forests, but also establishing permanent grassland, parks, orchards, gardens, etc. mainly on arable land.

Figure 3

### THE CONCEPT OF A GREEN BELT AROUND PRAGUE



#### Water management

Almost all inhabited dwellings (99.9%) in Prague are connected to water supply system and the vast majority of them (79.7%) also to sewer system. A similar technical level of inhabited dwellings is also in the Central Bohemia region (99.4% of them are connected to water supply system and 71.7% to sewer system). The problem of the system is its relative obsolescence and slow modernization. Another problem is low efficiency of Prague central wastewater treatment plant which uses an exemption from the regulations on the quality of treated wastewater until 2016.

A serious problem of the Prague metropolitan region, especially of Central Bohemia, is its insufficient flood prevention. In the core of the agglomeration, i.e. in Prague, an extensive investment made in the past decade almost solved this issue. In the Central Bohemia region, however, it remains a serious problem.

#### Noise

Prague is the most affected region by excessive noise pollution, caused mainly by road transport.

## **Land use, environment and waste management - positives**

### **Waste**

- A high proportion of energy recovery of municipal waste in Prague (approximately 75%).
- The municipal waste sorting system covers the entire city territory.
- Decreased land filling of waste (only about 3% of the total amount of generated waste).

### **Energy**

- Low-emission natural gas is the main source of energy (40% of the total energy consumption).
- Advanced system of centralized heat supply.

### **Air**

- Emissions of sulphur dioxide and particulate pollutants have been markedly reduced; also concentrations of nitrogen oxides and suspended particulate PM10 are being progressively lowered.

### **Greenery**

- Urban forest area is increasing.
- Planting of vegetation along busy roads increases.
- Revitalization projects of existing urban parks and gardens in Prague are successfully implemented.

### **Water management**

- Sufficient capacity of drinking water networks and technical infrastructure (water, sewer, etc.).

### **Noise**

- After the completion of Prague ring road reduction of noise pollution along the busiest roads is expected.

## **Land use, environment and waste management – problems and negatives**

### **Waste**

- Insufficient capacity to process biodegradable waste (composting plants, biogas plants) and to sort and recycle waste.

### **Energy**

- High energy performance of the housing stock and the objects owned by the City of Prague.
- Low proportion of renewable energy sources.

### **Air**

- Persistent negative influence of transport on air quality.
- Emissions of pollutants are increased by individual furnaces, mainly in the peripheral parts of the city.

### **Greenery**

- Expansion and linking of green areas are difficult due to gradual loss of undeveloped and unpaved areas, especially in peripheral areas of Prague.
- Uneven distribution of green areas in the city.

### **Water Management**

- Obsolescence of water infrastructure, including insufficient effective wastewater purification.

### **Noise**

- Significant part of the population suffers from high noise pollution (its main source being road transport).

## **4.3 Education**

### **Early childhood education (nursery schools)**

Early childhood education is facilitated by public and private nursery schools/kindergartens. The rise in birth rate in the last few years has resulted in the growing pressure on the system of preschool education. There were 352 nursery schools (with 38 457 pupils) in Prague (in 2012/2013), which represents 7% of CR total. These, however, serve 10.9% of CR children of the preschool age. In Central Bohemia region there are 704 kindergartens (with 44 430 pupils).

### **Elementary schools and grammar and vocational schools**

There are 252 elementary schools in Prague (6% of CR total) with 79 310 pupils (9.8% of CR total) and 193 grammar and vocational schools with 64 389 students. The number of students has been constantly dropping over the last ten years. In total, 20 000 pupils and students of Prague primary and secondary education facilities have their residence outside Prague. Of them, 17 000 are students of grammar and vocational schools. The share of graduates from vocational schools (out of the total of 18 years old) is under the CR average, the share of graduates from grammar schools is the highest of all the CR regions (30.7%).

There are also schools transcending regional importance (esp. art schools such as conservatories, 9 out of 18 being in Prague).

### **Tertiary education**

Tertiary education in Prague represents a high concentration of institutions and students compared not only to Central Bohemia region but to the rest of the country. More than 147 thousand students study in Prague (40% of all CR students), with only 27% of them having their permanent residency in Prague or in Central Bohemia region (18%). 14% of all students come from abroad.

### **Education – positives**

- Prague has for long been an educational centre for the whole country with an increasing importance on higher educational levels. Prague attracts students (of grammar schools) from surrounding regions and tertiary education students from all over the country.

### **Education – problems and negatives**

- The worst situation is in preschool education. The pressure on the preschool system has resulted in insufficient Prague capacities for early childhood education. The number of kindergartens in proportion to the number of children aged 3–5 is the lowest of all the Czech regions, while the average number of pupils in one class ranks among the highest (24.6 compared to CR 23.7). In the school year 2012/2013, 10 269 applications to kindergartens had to be rejected.

## **4.4 Social and healthcare system**

### **Social situation**

Prague has approximately 1.24 million inhabitants but on working days there are around 1.6 million people in the city. More than 13% (163 418) are foreigners. The city is slightly growing older (the average age being 41.2 years unlike 41.0 in the whole CR). The number of aged and especially elderly people is growing; the ratio of those over 65 to those under 15 being 131%). These trends have increased and will probably go on increasing pressure on the social and healthcare systems and social coherence of the city.

Prague has a high number and ratio of children born in nuclear families (37%), the CR average being even higher (43%). However, the number of single-parent families is slightly above the CR average in Prague (17% vs. 16% in CR). These are the most poverty endangered families.

Other groups of people endangered by marginalization, poverty, and exclusion are the following: handicapped, homeless people, Romany people, ethnic minorities, migrants, etc. According to the estimates there are ca 4 000 homeless people living in Prague and other 10 000 families are immediately endangered by homelessness. 20% of the homeless are women and only 40% of all homeless population have their formal permanent residency in Prague.

Mostly wealthier people with higher education and higher income move to the Prague's hinterland and settle in new residential complexes, usually separated from the original communities. This leads to polarization of the social structure of municipalities in the region.

### **Healthcare**

Prague has 27 hospitals with the capacity of 9 500 beds providing specialised healthcare to the inhabitants of Central Bohemia region as well and to the all CR as far as highly specialised facilities are concerned. The links among universities providing medical training, hospitals, and academic institutions are also of importance. Prague has nearly 10 000 doctors (incl. dentists), which represents an average of nearly 8 doctors per thousand inhabitants (vs. the CR average of 4.3).

### **Social and healthcare system - positives**

- Prague has a high economic performance and high living standards with a dense and still effective healthcare system. In terms of social solidarity and coherence, the city has not had to deal with any serious social problems so far.

### **Social and healthcare system – problems and negatives**

- However, there are some social tensions and latent problems in Prague. Its recent economic success has resulted in the gentrification processes in certain parts of the city and suburbanization of the Central Bohemia region (esp. in the 1990s). The processes of gentrification and marginalization of certain groups of inhabitants (esp. Romany people) have had impacts outside Prague (in Northern Bohemia where many of economically threatened people were relocated).
- As a consequence of the sub-urbanization process, Prague regional hinterland experiences differentiation of the population based on their social position. Spatial separation of new inhabitants of suburban municipalities and a low level of their communication with the original community can lead to an undesirable social segregation.

## **5 Funding schemes of EU Structural funds, problems of neighbouring regions under different EU Objectives**

To implement their projects and developmental intentions, both parts of the Prague metropolitan region, i.e. Prague and its regional hinterland have been using possibilities offered to them by the system of financial support of EU funds following the Czech Republic's accession to the European Union. Since Prague ranks among the most productive regions of EU (GDP per capita reaches 170% of the EU28 average), there is a different type of support for each part of the metropolitan region.

EU guidelines dictated appropriate population for each cohesion region, but the Czech government seems to have chosen existing regional boundaries to maximise the eligibility for EU regional funds. For this reason, seven of the eight regions qualify for Objective 1 support while Prague, the eighth region, qualifies for Objective 2 support for innovative high-performance cities. The current regional boundaries maximise the access to EU funds of the entire Czech Republic for regional policy.

The differences in operational programmes of Prague and the Central Bohemia region are shown in the following table:

Table 10

**SUPPORT FROM THE EU FUNDS IN THE PRAGUE METROPOLITAN REGION**

Region	Operational programme	Managing authority	EU funds	Main priorities
<b>Period 2004–2006</b>				
<b>Prague</b>	Single Programming Document for Objective 2 Single Programming Document for Objective 3	Ministry for Regional Development Ministry of Labour and Social Affairs	ERDF ESF	SPD 2: Revitalisation and development of the urban environment, Creation of conditions for future prosperity in a selected area, Technical assistance. SPD 3: Active employment policy, Social integration and Equal Opportunities, Lifelong Learning, Adaptability and entrepreneurship, Technical Assistance.
<b>Central Bohemia</b>	Joint Regional Operational Programme	Ministry for regional development	ERDF, ESF	Regional enhancing of entrepreneurship, Development of infrastructure in regions, Development of human resources in regions, Development of tourism, Technical assistance.
<b>Period 2007–2013</b>				
<b>Prague</b>	Operational Programme Prague – Competitiveness Operational Programme Prague - Adaptability	City of Prague City of Prague	ERDF ESF	OPPC: Transport accessibility and ICT development, Improving the environment, Innovation and enterprise, Technical assistance OPPA: Support and development of knowledge-based economy, Support of access to the job market, Modernisation of initial education, Technical assistance.
<b>Central Bohemia</b>	Regional Operational Programme NUTS II Central Bohemia	Regional Council of the Central Bohemia Cohesion Region	ERDF	Transport, Tourism, Integrated territorial development, Technical assistance.
<b>Period 2014–2020</b>				
<b>Prague</b>	Prague – Growth Pole of the Czech Republic*	City of Prague	ERDF, ESF	Strengthening research, technological development and innovation, Sustainable mobility and energy savings, Promoting social inclusion and combating poverty, Education and learning.
<b>Central Bohemia</b>	Integrated Regional Operational Programme*	Ministry for Regional Development	ERDF	Competitive, accessible and safe regions, Improving public services and living conditions for inhabitants of the regions, Good governance of the territory and streamlined public institutions.

\* Not approved yet (June 2014)

In both the past programming periods, the Central Bohemia region was supported from other (thematic) operational programmes within Objective 1 (2004–2006) or Objective Convergence (2007–2013). Apart from structural funds within its own OP, Prague also drew from the Cohesive fund and from the Community Initiatives (2004–2006) or from the Objective European Territorial Cooperation (2007–2013), e.g. programmes ESPON, INTERACT and others), however, to a substantially lesser degree.

Financial support from European and national sources is significantly reflected in the income structure in annual budgets of Prague and the Central Bohemia region. Whereas in Prague, tax revenues are prevailing (66% of all incomes), various types of subsidies being only about 27%, in the Central Bohemia region, subsidies represent 42% of all incomes, i.e. almost the same as tax revenues.

Table 11

**THE SHARE OF REVENUE ITEMS (%) IN 2012**

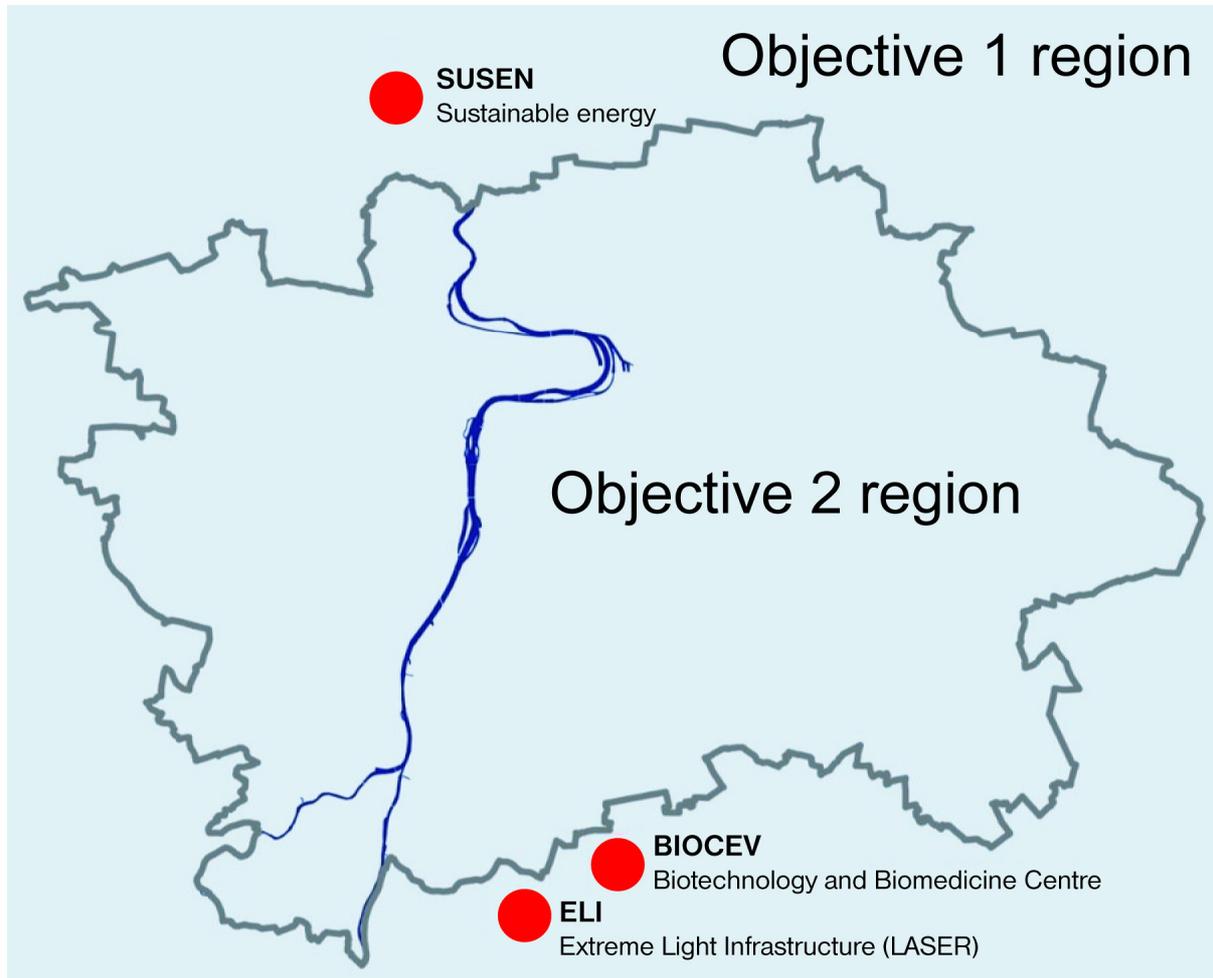
Area	Tax revenues	Non-tax revenues	Subsidies received	Capital revenues
Prague	66.5 (60–70)	6.3 (5–10)	27.1 (25–30)	0.1 (0–3)
Central Bohemia Region*	47.3 (45–50)	8.0 (5–10)	42.0 (40–45)	2.8 (2–5)
Czech Republic*	50.0 (50–55)	8.9 (5–10)	38.8 (35–40)	2.5 (2–5)

\* Total for municipalities and regional authorities

The fact that the Prague metropolitan region consists of two cohesion regions under different Objectives of EU support substantially complicates the possibility to implement joint projects with Central Bohemia region. In the programming period of 2007–2013 it lead to an absurd situation in which financially demanding infrastructure for research and science (see Figure 4 below) had to be built closely behind the Prague borders in the Central Bohemia region because the conditions of the support did not make it possible to use the EU funds for these investments within Prague territory. However, the development of these new scientific and research facilities is based on the high R&D potential of Prague and its human resources. Since these experts are connected with the capital city (lecturing at Prague university and colleges, work at research institutes, etc.), the new situation will cause further increase of commuting to work between Prague and the Central Bohemia region.

Figure 4

**PROBLEM OF TWO NEIGHBOURING REGIONS UNDER DIFFERENT EU OBJECTIVES**



The situation of Prague, i.e. the region under Objective 2 (support for highly effective innovative regions) surrounded by the region under Objective 1 (convergence) is not very frequent in the European Union but at the same time it is not exceptional (Vienna and others). It is therefore worth considering if the rules of the support from EU funds and their adjustment on the national level could not still be modified for the current programming period of 2014–2020 in such a way that they would not hinder the joint projects of the two different types of cohesion regions, on the contrary so that they would naturally motivate them to mutual cooperation beneficial for both parties.

## 6 Summary of findings

Prague and Central Bohemia region, especially Prague sub-urban zone, form one living organism with a number of mutual links, common topics, and similar problems. In spite of that, the effective cooperation of both parts of metropolitan region in dealing with these issues continues to be a real challenge. This results from the autonomy of both the

administrative areas, from their different political representations and specific position of the capital towards the rest of the republic. However, both partners, i.e. Prague and the Central Bohemia region share the need to solve their problems and challenges in coordination and mutual cooperation. August 2002 and May 2013 floods, which deeply affected the territories of both regions, became one of the decisive impulses for them to cooperate.

## **7 Recommendations and proposals for improving measures**

The efforts to improve a cooperation of Prague and its regional hinterland date back far to the 20<sup>th</sup> century. Already in the period between the two world wars, the so called State regulatory commission which had a very positive impact on the architectonic and urbanistic appearance of the capital city, tried to have influence over the development of the whole Prague agglomeration. These attempts however were not a great success.

It appears paradoxical but even under the communist regime with its central planning and directive control, attempts to develop cooperation of Prague and the Central Bohemia region were also not very successful. A special commission on the governmental level had to be established to coordinate important investment in the transport and technical infrastructure of the Prague metropolitan region.

In 1989, new situation occurred in the Czech Republic following the change of the political system, especially after v 2000 when new self-governing representations started operating in the newly established regions. Central Bohemia thus became Prague's partner for the cooperation on the same political level. This period was far more convenient for the development of inter-regional cooperation than the 1990s during the initial transformation. Due to the different political orientation of the management of both parts of the metropolitan region however (right-wing Prague and left-wing Central Bohemia), the cooperation was stagnant. Unfortunately, it was not satisfactory even in periods when both parts of the metropolitan region had political representations of the same parties.

It was one of the reasons Prague became involved in several international projects in the past decade, focused on the issues of cooperation in metropolitan regions. Probably the most beneficial was the project IM-PLAN (Co-operative planning processes in European metropolitan regions) implemented at the beginning of the past decade in cooperation with Berlin, Budapest, Prague, Sofia, and Vienna. In 2001, the project resulted in the common statement of participating cities, in which generally valid recommendations were formulated to improve cooperation of different administrative parts of metropolitan regions.

We believe that these recommendations are still valid.

*“On the basis of the experience gained in the metropolitan areas and their differing stages of development the following basic recommendations can be made:*

- *The growing challenges of complex development processes in the metropolitan areas create an objective need for cooperation. A precondition for consensual cooperation, however, is that participation is voluntary. Only then can sustainable spatial development be achieved.*
- *The informal character of the dialogues between the various local authorities, political representatives, administrators, and other participants makes it easier*

*to communicate on the same level, regardless of formal political or administrative hierarchies.*

- *A political dialogue taking place laterally to formal political and administrative structures can make a significant contribution to the formation of political opinions. The political willingness to enter into a dialogue and serious cooperation can only be aroused if this is associated with the expectation of achieving development advantages.*
- *The political acceptance of cooperation is not sufficient by itself. In addition to political openness, there are also other preconditions relating to finance, and personnel and also technical aspects that are necessary to provide the participants with suitable scope for action.*
- *Informal cooperation does not replace formal instruments of regional development. The acceptability of development goals and their critical scrutiny establish an important working basis for such informal cooperation. The integration of formal and informal instruments also offers the opportunity to enhance contents and results of formal planning procedures.*
- *Existing legal frameworks must be accepted (e.g. the principle of subsidiarity, the autonomy of local authorities in planning matters, agency responsibility for infrastructure and ecology, etc.). However, cooperation can aim at improving local planning and the work of agencies. The dialogue helps to increase the acceptability for the optimisation of this planning.*
- *Informal cooperation should not generate levels of decision making in competition with formal decision making structures. In order to prevent such conflicts, it is possible to draw up mutually agreed rules governing the actions of the participants.*
- *The results of a process of cooperation should take into account the interests and aptitudes of the various sub-regions, so that they will be acceptable to the relevant decision-makers (including those who did not take place in the cooperation process) as well as to the general public.*
- *The informal regional and inter-communal coordination should not only be taken into account at the level of local authorities, but also at higher levels and in technical planning agencies. A pre-condition here is not only political support for the remit but also on-going integration from an early stage in the communication process relating to cooperative planning and consultation.*
- *The quality of the informal cooperation depends to a large extent on the motivation, influence and ability of the participants, and also sometimes on the presence of individual lead figures. Effective cooperation is only possible with the active participation of political decision-makers and responsible administrators, and the support of external experts.*
- *Cooperation between metropolis and surroundings does not lead to short-term successes. The key is on-going exchanges about common interests, conflicts and common problems as part of a trust-building process between different levels and area of partial responsibility, The more constructive the interaction the more all participants will benefit.”*

(From IM-PLAN, Common Statements, 2001)

Prague in its first Strategic plan approved by the Municipal Assembly in 2000 expressed need and willingness to cooperate with the Central Bohemia region on the development

of the metropolitan region and to mutually coordinate their activities, especially with regard to the development of transport networks (integrated regional transport, city bypasses, and main road routes), technical infrastructure, development planning, and environmental protection. One of the key goals of Prague's strategic plan was, therefore, securing good and equal relations with the regional hinterland and cooperation with the Central Bohemia region in coordination of development goals. These directions of cooperation were confirmed for the following period in the implementation programme of the updated Strategic plan for Prague in 2009.

The main supposed activities include the following:

- The establishment of a joint advisory body for the interaction between Prague and the region, and if possible of a joint work place for the preparation and co-ordination of developmental goals (focused not only on transport and technical infrastructure, but also housing, commercial centres, education, health and leisure).
- Collaboration on the preparation of draft developmental documents, i.e. strategic and land-use plans.
- The coordinated distribution of major investments, which may influence the spatial arrangement and transport requirements of Prague and the Central Bohemia region.
- Collaboration with regional development agencies (already established in the Central Bohemia region, but still missing in Prague).
- Joint preparation of the projects which require funding from the state budget or European Union funds, etc.

The Prague metropolitan region is surely the most dynamic development area in the whole Bohemia and Czech Republic. The utilisation of its potential for development and of the historic qualities of this area should not just be responsibility of the two regions in question, but of the whole country and even of the wider area of Central Europe.

## **8 The role of Prague 9 in urban-rural cooperation**

There is no doubt that the responsibility for the development of mutual relations between the core of metropolitan region and its neighborhood lies mainly with the self-governing bodies of both adjoining territorial units – in case of Prague metropolitan region with the Municipal assembly of the capital of Prague and the Municipal assembly of Central Bohemia region. These relations, however, can also significantly influence individual city districts of Prague and communities of Central Bohemia region, especially those which are neighboring along the city border. Various local problems can be better and often also easier solved and partial common developmental intentions implemented on this level. Thus the activities of Prague city districts can contribute to the implementation of all-town intentions in the field of cooperation with the Central Bohemia region. However, this need not always happen if the intentions of the city as a whole differ from those of the partial city districts.

The municipality of Prague 9, which represents the capital of Prague in the City Regions project, is not a peripheral city district and therefore does not border on any community of the Central Bohemia region. In spite of that, it has a profound influence on the quality of cooperation with the Central Bohemia region. In the territory of this municipality there are a number of destinations for commuters to work from the north-eastern segment of Central Bohemia region (whose scale was much larger in the past than it is nowadays)

and also several important interchange junctions between railways, regional bus transportation and the systems of public transport of the capital of Prague (e.g. Praha - Vysočany railway station, some bus lines at the metro station Českomoravská, etc.). Prague 9 is thus a destination or at least an important changing station for a lot of commuters from the region. As many of them drive their cars to Prague and park in the streets of Prague 9, complications arise in the smoothness of transportation and the physical, environmental, and aesthetic burden on the streets and main communications.

This is one of the reasons Prague 9 has focused on the elaboration of the new Road Transport Master Plan for the district Prague 9 within the City Regions project which brings about a number of suggestions to improve the organization of the surface transportation, to increase permeability of communications and intersections, to improve the flow of traffic in the city public transportation, parking (including construction of Park and Ride at interchanging junctions for the inhabitants of Central Bohemia) and cycling roads. These proposals, if implemented in the near future, will be beneficial for both the inhabitants of Prague 9 and commuters to work, for the services and recreation from Central Bohemia.

## **9 Joint Integral Territorial Investment Project as the first step to the future improvements**

The EU 2014–2020 programming period, mainly the Integrated Territorial Investment (ITI), a new instrument for the integrated approach to a specific territory, represents a new opportunity for a change of the current situation in the Prague metropolitan region.

The first step leading to the preparation of ITI for Prague metropolitan region was the Memorandum on the cooperation of Prague with the Central Bohemia region, signed by Tomáš Hudeček, the mayor of Prague and Josef Řihák, the regional president in June 2013. On the basis of this memorandum, a working group was established in the 3 + 3 format (a representative of the political leadership, strategic expert, and implementation expert). At the very first meeting of the working group, an agreement was reached in the following three main topics of ITI preparation: transportation, environment, and regional system of education. The future guarantors of the metropolitan area strategy have agreed that ITI Prague metropolitan area (ITI PMA) shall only include the projects with an evident positive impact upon the territories of both regions.

Since the only metropolitan area in the country is formed by two categories of regions which are subject to different EU financial support regulations (Prague – Objective 2, the Central Bohemia Region – Objective 1), the majority of the projects will be implemented in the hinterland of the metropolitan region (i.e. in the Central Bohemia region), their main ITI initiator being the core city (Prague).

After the signature of the Memorandum, the preparation of the strategic document which should become a conceptual starting point for ITI PMA was started. In the area of transportation, joint P&R construction is being planned as well as the interconnection of Prague and Central Bohemian systems of integrated transport and modifications of some railway stations. In the area of environment, the implementation of anti-flood measures in the Central Bohemia region is concerned, as to the regional system of education, improvement of physical capacities (both facilities and human resources) in the ring of municipalities around Prague is planned.

These projects will be financed by individual regions respectively from their own sources and subsidies, however on the basis of one jointly elaborated and approved strategy.

The memorandum on the cooperation is a basis for the future common platform (steering committee) for the development and implementation of ITI PMA. In the course of time, this steering committee is supposed to be extended by other subjects from municipalities, bodies of state administration, NGO's, town organizations or entrepreneurs. \*

The capital of Prague, the Central Bohemia region, and the whole Prague metropolitan area intend to use this integrated instrument mainly to achieve an improved functional interconnection of both the territories, to solve common infrastructural problems (both in the specific topics and in those exceeding the scope of European funds), and last but not least to establish a long term cooperation on all levels.

The extent to which this opportunity will be used and the cooperation of both parts of the Prague metropolitan region improved will become apparent in the near future.

*\* Before the approaching municipal elections 2014, the improvement of the cooperation between the capital of Prague and the surrounding Central Bohemia region becomes one of the topics in the election programs of the candidate political parties and groupings. E.g. political association "Jan Kasl's Democrats 65" (Jan Kasl was the mayor of Prague in 1998–2002) suggests among others an establishment of the coordinating body for the Prague metropolitan region, i.e. "Metropolitan council for Prague and Central Bohemia", or the program "Park and Ride for the inhabitants of Central Bohemia" as a solution to the parking around railway stations and bus stations in the communities and towns of the Central Bohemia region. The construction of these facilities should be implemented between 2014 and 2020 and financed from ITI funds.*

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