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Case Study Report: Prague Metropolitan Region

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1. Introduction

Prague dominates the settlement and regional system in the Czech Republic. The city accounts for 12% of the country's population, 15% of jobs and over 25% of the GDP.¹ The region is defined by the exact boundaries of the city and does not include its close surroundings: Prague has special status, as both a municipality and as a region, enclosed by the region of Central Bohemia.

1.1. History and location

Prague has a favourable position with respect to the neighbouring states; it is located at a distance of 120 km from the borders of Germany and Poland, 150 km from Austria and about 250 km from Slovakia.² Prague is at the centre of the Central Bohemia region. It extends over an area of 496 sq. km, which is 0.6% of the area of the CR. Prague has a very varied topography. The inner city is located in the large valley of the Vltava River, which divides it into two sections. The outer city is spread out over the surrounding elevated plateau. The altitude differences between the various areas of the city make transport solutions and other line constructions more challenging. The central bodies of the public and private sectors are clustered there, as are the offices of Czech and foreign companies. The outer city is the location for new residential developments and the development of commercial and logistic centres. One third of the area of Prague is covered by greenery. One tenth of the city's territory is utilised for residential development.

1.2. Basic socio-economic characteristics

Economic development

In terms of GDP per capita, Prague significantly outperforms the EU average and dominates other Czech regions including other metropolitan regions (see Table 1).³ Prague is one of the most-developed EU NUTS 2 regions according to GDP per capita (173 percent of the EU27 average in 2011). The dominance of Prague has strengthened significantly during transition, and no other Czech region has improved its relative economic standing to a similar extent. According to data from the Czech statistical Office, in 2013 Prague accounted for over 25% of national GDP.

Basic features of the economic development of Prague are the strengthening of the service sector and the decreasing share of productive industries in gross value added: the service sector now represents more than 80% of the total gross value added in Prague. This is reflected in employment data. In 2009, 80% of all employed in Prague worked in services. In contrast, the share of industrial sector in creation of value added and employment is much lower than the national average. Industry as a branch does not have such an important position in Prague as in other regions of the Czech Republic. A crucial branch for Prague's economy is tourism. Prague has become a favourite

¹ POLYCE (2012) Metropolisation and Polycentric Development in Central Europe Targeted Analysis 2013/2/12

² City of Prague (2007) Operational Programme Prague – Competitiveness 2007 - 2013

³ This section draws on Jungwiertová, L., Feřtřová, M. and Blažek, J. (2013) 'The decline of explicit regional policy? Regional policy developments in the Czech Republic, 2012-13', EoRPA - Regional Policy Developments Europe: Country Reviews 2012-13

destination of tourists from abroad, who represent more than 90% of all accommodated guests. However, Prague is also a common destination for domestic business trips.⁴

Table 1: Selected structural economic data for NUTS 3 regions in the Czech Republic

Self-governing region (NUTS 3)	GDP per capita (in percent) EU27 = 100		Education index		Foreign direct investment per capita (€ thousand)		Employment in tertiary sector (percent)	
	2001	2011	2001	2011	2001	2011	2000	2010
Prague	142	173	73.4	79.4	13.06	39.35	78.1	82.6
Central Bohemia	66	71	41.8	54.6	2.92	7.76	54.5	61.4
South Bohemia	64	68	44	53.7	1.76	5.42	51.1	52.7
Plzeň	65	72	43.6	51.7	2.23	5.05	52	52.4
Karlovy Vary	59	57	36.9	41.7	1.14	2.51	57.4	57.9
Ústí nad Labem	57	64	35.9	43.6	2.64	4.08	54.5	53.5
Liberec	62	61	41	49.2	1.30	5.19	45.8	48.6
Hradec Králové	65	69	43.7	52.4	1.13	3.33	52.8	54.8
Pardubice	60	65	42.1	51.4	1.71	3.97	54.5	50.4
Vysočina	60	66	40.9	51.1	1.47	3.77	44.4	49.6
South Moravia	65	75	48.6	59.3	1.63	5.31	55.9	61.2
Olomouc	55	62	43.8	53.8	1.19	1.88	50.3	55.2
Zlín	59	68	42.6	53.7	1.39	3.28	47.8	48.5
Moravia–Silesia	55	70	42	52.2	0.97	5.44	52.9	54.3
Czech Republic	70	80	46.1	55.7	3.01	8.88	55.6	58.6

Source: Jungwiertová, Feřtřová and Blažek, (2013) op. cit.

Notes: (1) The education index is calculated as a sum of weighted share of population aged more than 15 years old with secondary education (weight 1) and with tertiary education (weight 2). (2) Employment in the tertiary sector relates to the employed in the national economy by CZ-NACE (according to the LFSS) – categories G - S.

Table 2: Regional unemployment rates in the Czech Republic, by quarter, 2011-2013

	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q3
Prague	3.7	3.6	3.7	3.6	3.7	3.7	4.4	4.5	4.5
Central Bohemia	6.1	5.5	5.4	5.4	5.9	5.5	6.9	7.2	6.6
South Bohemia	6.6	5.3	5.1	5.3	6.4	5.4	7.0	7.7	7.
Plzeň	6.6	5.5	5.4	5.4	5.9	5.1	6.4	6.8	6.6
Karlovy Vary	9.1	8.1	7.8	7.7	8.4	7.7	10.0	10.4	9.3
Ústí nad Labem	10.3	9.4	9.4	9.5	10.4	9.8	13.1	13.6	11.3
Liberec	8.0	7.3	7.3	7.1	7.6	7.1	9.6	9.9	8.4
Hradec Králové	6.2	5.2	5.1	5.3	6.0	5.4	7.2	8.0	7.2
Pardubice	7.4	6.0	5.8	5.9	6.9	5.8	7.6	8.4	7.7
Vysočina	8.1	6.4	6.4	6.5	7.5	6.3	8.5	9.2	8.2
South Moravia	8.3	7.2	7.1	7.2	8.0	7.1	9.3	9.8	8.7
Olomouc	9.1	7.7	7.5	7.7	8.8	7.7	10.2	11.0	9.9
Zlín	7.8	6.7	6.6	6.6	7.3	6.6	8.9	9.7	8.6
Moravia–Silesia	9.1	8.2	8.0	8.0	8.8	8.2	11.2	11.8	9.9
Czech Republic	7.4	6.5	6.4	6.4	7.1	6.5	8.4	8.8	8.0

Source: Jungwiertová, Feřtřová and Blažek, (2013) op. cit.

⁴ Czech Statistical Office (2013) Characteristic of the capital city of Prague

The global financial crisis has had an impact on territorial development patterns, reflected in drops in economic activity across the country and increasing unemployment (see Table 2). Unemployment statistics indicate that while the impact has been experienced in old industrial regions and peripheral, agricultural regions, metropolitan regions with diversified economic structures (especially Prague) have suffered the least.⁵ The situation of Prague is the most stable, while the unemployment rate varies only relatively moderately among the other regions. The Ministry of Finance projects another increase in the unemployment rate in 2013 and 2014.

It should also be noted that a trend towards deeper differentiation at micro-regional and local levels is indicated by detailed analyses of 2009-12 of municipal-level data.⁶ These analyses point to a complex, fragmented pattern with neighbouring municipalities varying significantly in terms of socio-economic development according to different factors. This micro-level differentiation applies to better performing regions such as Prague.⁷

Population

Prague dominates the population structure in the Czech Republic. Its area is 496 km², which is only 0.6 % of the CR's territory, but with the population of 1,246,240 inhabitants as of March 31 2013 it represents almost 12 % of the total population of the country.⁸ The country's second largest city, Brno, has one third of Prague's population. There has been some fluctuation in demographic trends over the past two decades. The population of Prague grew up to the beginning of the 1990s, based on migration from the whole of Poland. However, the overall population of Prague began to fall in 1993, influenced by migration to new dwellings as part of a process of suburbanisation in the outskirts and surrounding areas.

The population of the metropolitan area as a whole increased by 110,000 for the period 2000 to 2008 as the city has continued to demonstrate its primacy within the Czech urban system. However, whilst the central Prague Region itself contains 80% of the metropolitan population, the most rapid population growth is observed in the suburban area linked to the city through transport links and heavy commuting. Despite its historic primacy in terms of where jobs are located there have been recent signs of a shift in employment within the Prague metropolitan area towards suburbs that has accentuated city-to-suburb commuting. Prague lost its dominant position in terms of population in 2011, when the Central Bohemia region became the most populated in the Czech Republic.⁹ The current population density in Prague region (in 2012), is 2 502,7 persons/ km².

⁵ Blažek J and Netrdová P (2012) Regional unemployment impacts of the global financial crisis in the new member states of the EU in Central and Eastern Europe, *European Urban and Regional Studies*, Vol. 19.1, pp. 42–61.

⁶ Ouředníček, M, Temelová J and Pospíšilová L (eds) (2011) *Atlas of Social-spatial Differentiation of the Czech Republic*. Prague, Karolinum, 130pp; Bernard J (2012) Spatial pattern of economic development of rural municipalities, *Geografie Sborník České Geografické Společnosti*, Volume 117, 2012/1, pp. 105-24.

⁷ Musil J and Müller J (2008) Vnitřní periferie jako mechanismus sociální exkluze (Inner peripheries as a mechanism of social exclusion), *Czech Sociological Review*, Vol.44, No.4, pp. 321-48, (in Czech).

⁸ Czech Statistical Office 2013

⁹ POLYCE (2012) op.cit.

Demography

In terms of population structure, in recent years, the municipalities around Prague have experienced an influx of young, educated people while the inner city has an ageing population Prague has a high and in recent years gradually accelerating share of seniors over 65 years of age (17.2% as at 31 December 2011). At the same time, it has the smallest share of children under 15 years of age (13.3%). These shares in the Czech Republic were 16.2% and 14.7%, respectively. High levels of population growth in districts on the outskirts of the city and the surrounding areas are associated with a younger age structure of the population. Housing provision is a key issue in this respect. New housing construction accelerated after 2000 when mortgages became easier to obtain and the birth rate increased temporarily. At the same time, older people in inner city areas face increasingly high housing costs due to rent deregulation.

Ethnic minorities

Concerning minorities, overall the number of immigrants in the Czech Republic has been rising since 2000. Immigrants comprise 4% of the Czech population. Prague has the highest share of immigrants (11.8% of the population), which represented over one third (34.2%) of all foreigners in the Czech Republic. Significant ethnic minorities include Ukrainians, Russians and Vietnamese. National minorities are not concentrated in specific locations and the social structure thus remains quite homogeneous throughout the whole city area. The highest number of foreigners live in the Prague 4 district as well as in modern housing estates on the outskirts of Prague. Although minorities these are considered to be well integrated, there have been some tensions and Prague has established a centre to help foreigners integrate into Czech society in cooperation with NGOs and state and municipal institutions. The Centre for Integration offers consultancy, information and education and it is supported by EU funding. It is also worth noting that Prague's Roma population has declined significantly over the past decade. It has been displaced to more peripheral regions in the Czech Republic, at least in part as a result of rising property rates in the city.

Human capital, education etc.

Prague is the national centre for education, with the highest concentration of schools from secondary level upwards. Prague has the highest number of grammar schools and secondary technical schools of all the regions. Prague secondary schools represented in school year 2011/2012 14 % of all secondary schools in Czech Republic. Prague also holds a unique position in terms of university education, with 33 universities supporting 144,800 students (37 % of all university students in the Czech Republic). Levels of education are highest in Prague but over the period 2001-2011 its growth was the second-lowest after the Karlovy Vary region (see Table 1) due to the suburbanisation trend: more educated people have been moving to the Central Bohemia region, which has experienced the strongest increase in terms of the education index. The education system can be seen as an instrument of equalisation that strengthens cohesion but the situation is changing. Schools at primary level provide a standard education: the state pays for teachers and the municipalities for building maintenance. However, at secondary level this is not the case: there are some more prestigious schools and more private schools.¹⁰

¹⁰ Interview, Tomáš Kostecký head of Local and Regional Sociology research group, Institute of Sociology, Academy of Sciences

Poverty and inequalities

EU statistics on income and living conditions (EU-SILC) is the main data source on income and living conditions of European households. Data on the social and economic situation of households are used mainly to explore the at-risk-of-poverty threshold and the at-risk-of-poverty rate. National and regional poverty thresholds can be set (at 60% of average incomes). Assessments of poverty and inequalities in Prague, based on this data, vary according to the scale of measurement. According to data from 2009, a comparison of the region's 'at-risk-of-poverty rate' is favourable: the region's share of persons with an equalised yearly disposable income lower than the at-risk-of-poverty threshold set for the country as a whole was 4.6%. This was the lowest of all Czech regions. On the other hand, when the threshold is set at the regional level, 12.4% of the population in the region has income levels below the Prague region poverty threshold, which is the highest at-risk-of-poverty rate in all regions. This difference is due to high variability of income distribution, which is confirmed by the Gini and S80 / S20 coefficients.¹¹

1.3 Administrative and governance context

Domestic regional policy administration and governance

The Czech Republic has a complex system of public administration with various institutions operating at several levels, including in the governance of regional policy (see Table 3).

Table 3: Public administration in the Czech Republic

Level	Name	Units
NUTS I	State	1
NUTS II	Cohesion Regions	8
NUTS III	Regions	14
LAU I	Districts	76 + 15 Prague city districts
LAU II	Municipalities	6249

Concerning regional policy administration, the Guidelines for Regional Policy of the Czech Republic specify two key administrative levels. First, the national level is responsible for supporting the 'socio-economic growth and environmental potential of the regions, enhancement of regional competitiveness, balanced development of regional structure and elimination of unacceptable disparities in economic and social development and in environmental prerequisites of the regions'. The Ministry of Regional Development (MRD) is the principal managing and coordinating authority of activities undertaken to support regional development. It manages financial resources allocated to regional policy and provides support to national, regional and local bodies. The MRD fulfils these functions not only in the framework of domestic regional policy, but also under EU Cohesion policy. In the framework of domestic regional policy, the MRD elaborates a Regional Development Strategy for the Czech Republic, a medium-term (3-7 years) strategic document that sets out support for regional development. Furthermore, the MRD proposes national programmes for regional development support in a medium-term document focusing on detailed specification of support for specific regions. At national level, regional policy governance also includes the Centre for Regional Development of the Czech Republic, a subsidised organisation of the MRD established to support

¹¹ Dvornáková, T. (2012) At-Risk-of-Poverty Threshold 2012, Czech Statistical Office, Prague, Czech Republic

national regional policy implementation. Currently, the role of this Centre is of greater importance in the framework of EU Cohesion policy (as an intermediate body of SF funded programmes).¹²

Second, the regional level forms the basic building blocks for the implementation of regional development support. The constitutional task of authorities of self-governing regions is that they 'should determine regional developmental priorities, influence spatial disparities within the particular self-governing region, and care for landscape and economic diversity within their territory'. This obligation is also confirmed in the Act on Self-governing Regions (No. 129/2000 Sb.). The importance of self-governing regions has increased in recent years because of EU Cohesion policy, as the regional authorities have been engaged in the management structure for Structural Funds in the Czech Republic, i.e. in managing regional operational programmes. There are 14 self-governing territorial regions, established in 2001 at NUTS 3 level (13 regions and the capital city of Prague). Regional self-government is provided by directly elected assemblies. Each region has its own assembly, governor and government with responsibility for upper secondary education, regional public roads and transport, health care/ general hospitals, and social aid and some social policies for disadvantaged groups.

The self-governing regions are further subdivided into 73 districts, although elected district authorities were abolished in 2003. Finally, the country is divided into municipalities with directly elected bodies. The 1990 Act on Municipalities re-established self-government at the local level. Under this law, the municipality is defined as 'the principal local government unit'. The responsibilities they exercise are quite wide, particularly considering that some of them are very small (some rural municipalities have less than 100 inhabitants). Municipalities are responsible for local infrastructure and public services. They can collaborate with each other to develop infrastructure but they cannot impose taxes to finance projects (taxes are assigned by the state through an equalisation mechanism). Czech municipalities are independent legal and economic entities. They have their own means and financial resources. They have the right to acquire, dispose and manage municipal property, adopt a municipal budget, establish legal entities, adopt a municipal development programme, approve a local physical plan and introduce municipal decrees.

It should be noted that there are issues of fragmentation at the municipal level. A large number of municipalities have small populations: municipalities with less than 1,000 inhabitants accounting for only 17.1% of the population but cover 57.7% of Czech territory. This can be seen as a reaction to the compulsory amalgamation of municipalities under the former communist regime and a reassertion of local identities as part of the post-communist democratisation process. This, in turn, makes it challenging for central government to introduce administrative reforms to rescale the size and economic resources of municipalities. The plurality and fragmentation of local administration can be seen as favourable in some respects: it allows more flexibility, allows the expression of specific local interests and encourages stronger civic participation. On the other hand, it creates problems in terms of the economic stability of a large number of municipalities: funding is scarce for large investment projects and even for the provision of some basic services (e.g. local transport). Moreover, some

¹² Feřtřová, M., Jungwiertová, L. and Blažek, J. (2011) 'Moving towards the applied regional policy paradigm? Regional policy developments in the Czech Republic in 2010-2011' EoRPA - Regional Policy Developments Europe: Country Reviews 2010-2011

smaller municipalities do not employ qualified personnel and thus administrative decisions can include errors and are contested. In the smaller municipalities, there is also sometimes a problem with political instability when local councils collapse apart local elections can be very frequent.¹³

Prague has a unique status within this system: it is a town, district and cohesion region and a NUTS II and III statistical unit within the EU. Prague is autonomously governed by the Prague City Assembly and other authorities. From the point of view of the execution of state administration, it is divided into 22 administrative districts and from the point of view of local administration, into 57 autonomous city municipalities with their own elected authorities. These municipalities are heterogeneous in terms of area, population, degree of urbanisation, quality of technical infrastructure and socio-economic living conditions.¹⁴

Governance of EU regional policy

Governance of the European dimension of regional policy is conducted by the following institutions. Overall responsibility for the management and coordination of the NSRF lies with the National Coordination Authority (NCA) in the frame of the Ministry of Regional Development. The NCA plays, among other tasks, the role of the official partner for the EC on NSRF issues. Furthermore, within the MRD, the Monitoring Committee – the Management and Coordination Committee - was founded and is in charge of managing, coordinating and assessing tasks related to EU Cohesion policy. Under the Ministry of Finance, two important bodies in terms of financial management of Structural Funds were constituted, those of the Paying and Certifying Authority (National Fund Department of the Ministry of Finance) and the Audit Authority – Central Harmonisation Unit for Financial Control. In addition, some other sectoral ministries have a role as managing authorities of particular thematic operational programmes. To manage regional operational programmes, regional councils were established at the level of NUTS 2 cohesion regions.

For planning EU Cohesion policy programmes, eight Cohesion regions operate at NUTS 2 level through an administrative merger of the 14 regions. Cohesion regions established by Act No 248/2000 Sb., on regional development support are identical with the NUTS 2 statistical units. The cohesion regions have regional councils that act as managing authorities for the 2007-13 ROPs. These are administrative units rather than self-governing institutions: self-governing regional assemblies at the NUTS 3 level elect regional councils at the NUTS 2 level. Cohesion region councils do not have permanent staff and they meet in different locations. The Prague region is the only region to fall under the Regional Competitiveness and Employment Objective and Prague City Hall is Managing Authority for two OPs, one supported by the ERDF and the other by ESF.

¹³ Illner, M. (2008) 'Bottom-up territorial consolidation in the Czech Republic?' presentation at the Conference Lessons Learned from Territorial Consolidation Reforms – the European Experience Warsaw, 14.15 November 2008

¹⁴ Dvorakova, Z. and Stroleny, A. (2012) Social dialogue and the public services in the aftermath of the economic crisis: strengthening partnership in an era of austerity in the Czech Republic, National report

Coordination mechanisms

The key coordinating responsibility for regional development policy lies with the Ministry of Regional Development. In keeping with contemporary approaches to regional development in many EU Member States, strategic programming is an important coordination mechanism. In theory at least, coordination is achieved through the linking of domestic and EU-funded programmes at national and regional levels. The actual realisation of coordinating activities is vertical in nature, covering methodological and consultative actions related to self-governing regions, municipalities and other spatial units. Despite carrying out horizontal coordination mechanisms (e.g. seminars, conferences, working groups) to ensure coordination of regional policy with other relevant strategies of sectoral ministries having regional impacts, for several reasons, coordination of strategic programming and management in the Czech Republic is a major challenge (see Section 3).

Public administration funding

According to the OECD (2011) just over a quarter of general government expenditure is spent at the sub-national levels in the Czech Republic.¹⁵ The self-governing regions and municipalities overall derive their income from tax revenues and state subsidies. The system of financing for self-governing regions is redistributive in nature, and operates according to a formula that gives equal shares of revenues from shared taxes. The financial volume of this redistribution was about CZK 45 billion (c. €1.7 billion) in 2012, representing 40-45% of total revenue. The weight of central transfers is higher in the regions than in the municipalities: regions are much more financially dependent on central government and have obligations to fund tasks delegated by the centre, (e.g. schools, social services). Until 2008, municipalities were arranged into 14 categories according to population size, and each size category was assigned a coefficient that modified the number of inhabitants. Consequently, all municipalities or cities of the same size received the same amount of money per capita. This system was especially helpful to cities in structurally affected areas that received the same per capita tax shares as economically stronger regional capitals. Subsequently, the Ministry of Finance prepared a new model of financing where the number of categories was cut to four, and also introduced several other adjustments that resulted in a less steep curve for the redistribution of shared taxes. This model was introduced in 2008 and benefited cities in structurally affected areas and also small villages and rural areas. In January 2013, an adjustment of the system was launched to moderate the discrepancy in per capita tax income between the different population-sized municipalities, notably by increasing the scale of the budget receipts of smaller municipalities. Furthermore, apart from population, other criteria have been incorporated into the redistributive formula (municipality area and number of pupils with 3 and 7 percent of the formula respectively). In addition, the share of tax income on the entire income of municipalities has been increased at the expense of State grants previously provided to municipalities for various capital projects. The Czech municipalities annually receive approximately CZK 150 billion (c. €5.8 billion) in the form of shared taxes distributed according to this equalisation formula, representing around two-thirds of their revenue.

¹⁵ OECD (2011) Economic Survey of the Czech Republic 2011.

2. Trajectories of economic development and structural change, social cohesion

2.1. Economic performance

In economic terms, Prague significantly outperforms the EU average and dominates other Czech regions, including other metropolitan regions, in GDP per capita (see Table 1).¹⁶ Prague is one of the most-developed EU NUTS 2 regions according to GDP per capita (173 percent of the EU27 average in 2011). The dominance of Prague has strengthened significantly during transition, and no other Czech region has improved its relative economic standing to a similar extent. According to Czech official statistics, Prague's GDP has increased steadily over the past 15 years: in 2007, the level of GDP increased by 66.5% since 2000 and reached 215% of the Czech Republic average (200% in 2000), while GDP of the whole republic increased only by 53%. In 2013, Prague accounted for over 25% of national GDP. The high level of GDP and its high growth rate is positively influenced by a unique position of Prague in settlement and economic systems of the Czech Republic. Prague is a natural economic, scientific, educational, cultural, and political centre of the Czech Republic. The country's services sector (finance, insurance, telecommunication) is concentrated there as is the gross value added generated by the governance sector. It is important to note, however, that data referring to Prague refers to the city alone and not to its regional hinterland (for instance, in comparison the Hungarian region 'Közép-Magyarország' consists of the City of Budapest and its hinterland). This means that the statistical data describing the City of Prague are not averaged together with data on its hinterland as in other EU capital cities

The interaction between Prague city and the region of Central Bohemia produces mixed results in terms of economic performance. Central Bohemia's location significantly influences its economy. The region is a crucial source of labour for Prague. Close ties with the capital and the dense transportation network make the position of the region very favourable and it ranks among the best performing regions under a number of indicators, with the exception of Prague itself (see Table 1) Gross domestic product per capita is approximately 92 % of the average level of GDP per capita of the Czech Republic, which ranks the region third within all the regions of the Czech Republic. The unemployment rate is also lower than the national average. The key industries in the region are engineering, chemical industry and food industry. There are also several key enterprises in the glass, ceramics and printing industries. Traditional industrial branches (coal mining, steel industry and leather industry) are declining. The number of employees in the manufacturing industry and agriculture is above the Czech average, while the number of employees in the building industry and services is rather low. Services, however, have been reporting a progressive increase in recent years. On the other hand, there is an obvious imbalance in the relationship between Prague (as a metropolis of national importance) and Central Bohemia (some of which forms the outskirts of Prague) and this creates some serious disadvantages for the latter. First, important disadvantages for development stem from the absence of a regional administrative centre in Central Bohemia. Prague is the natural regional capital for Central Bohemia but it is administratively separate. Central Bohemia does not have a natural focus for development on important issues like administration and innovation as the key centres for this are concentrated in Prague. Indeed, when the regional of Central Bohemia was in the process of being established, there were plans to establish a new

¹⁶ Jungwiertová, L., Feřtřová, M. and Blažek, J. (2013), op. cit.

regional capital in Mylovice (the site of an old Soviet army barracks).¹⁷ Second, and related, Central Bohemia is itself diverse in terms of socio-economic profiles with a range of settlement sizes with different economic structures. Again, the influence of Prague is important in this respect as those municipalities closer to the city tend to have higher levels of economic performance. There are distinctive differences in unemployment within the region, with distance from Prague being an influential factor. The Central Bohemian Region also has the second densest but also the most overloaded transport network in the CR. There is strong pressure on the land and a process of suburban sprawl. Another negative side is the expansion of logistics sites – large warehouses in the belt around Prague – this is to supply the consumption of Prague but it does not create quality jobs in these areas.¹⁸

2.2. Legacies of the socialist system

Several legacies of the former socialist system can still be identified and these influence development in the metropolitan region in different ways. First, the relative neglect of strategic development planning can be seen as a reaction to socialist-period central planning (as well as reflecting the dominance of neo-liberal principles, particularly in the 1990s).¹⁹ Communist planning also contributed to the functional separation of Prague from the surrounding Central Bohemian region. Communist efforts to balance the development of the urban system halted the dynamic population concentration and spatial expansion of Prague. It shifted the allocation of investment, jobs, housing construction and other functions to other areas.²⁰ Outside the immediate metropolitan region, selected individual centres of Central Bohemia were supported in order to counterbalance rather than complement the attractiveness of the metropolis.²¹ All investments came under state control and the process of urbanisation was restricted mostly to the jurisdiction of Prague city. The shortage of developable land within the city jurisdiction after all available land had been developed led to the periodic, ad hoc annexation of rural hinterland communities: “The Prague urban fringe became a no-man’s land – a bottomless spatial reserve for aggressive road, warehousing, rubbish and recreational uses”.²² The intense process of suburbanisation around Prague since the 1990s has taken place against this background, based more on the extension of existing small towns (only half of suburban settlements are ‘new’) and is more piecemeal rather than involving a planned or ‘blanket’ suburbanisation effect.

Communist planning also produced a specific socio-spatial structure in Prague that has influenced development up to the present day. The outer city is the zone with the most visible impacts of the

¹⁷ Interview, Marcel Chládek, Central Bohemia self-government region, unit for regional development and EU funds

¹⁸ Interview, Milan Korner, Urban and regional planning institute

¹⁹ Interview, Jiří Blažek, Charles University Prague

²⁰ Musil, J. (1991). Urban System of Czechoslovakia and Future Internal Structure of Prague.

Prague: Institute of Sociology. Czechoslovak Academy of Sciences.

²¹ Interview, Milan Turba, former long-term head of strategic planning unit; Maier, K (2003) ‘The Prague Metropolitan Region’ in Salet, W., Thornley, A. and Kreukels, A. (2003) Metropolitan governance and spatial planning : comparative case studies of European city-regions, London ; New York : Spon Press,

²² Blažek, J., cited in Maier (2003), op. cit.

socialist past.²³ In the 1970s and 1980s, there was a perceived housing shortage and central government provided subsidies for construction of housing blocks in outer city areas. As a result, more than 40% of the capital's inhabitants live in one of Prague's 54 housing estates built under the Communist Party's 'Complex Housing Construction Programme'. These estates were homogeneous in demographic terms and heterogeneous in social terms. Communist housing policy favoured young families with children and thus shaped the age structure of housing estates into two-generation communities. This communist legacy has been beneficial in some respects, minimising social polarisation in the city. However, conflicts between different demographic and social groups are emerging in certain areas, and more serious problems may burden the city in the future. For instance, demographic ageing and the potential concentration of ethnic communities are among most discussed problems, especially with regard to the oldest generation of housing estates.²⁴

In areas of Central Bohemia around Prague, the communist legacy has included the dominance of outdated heavy industries that since the 1990s have lost their traditional markets and the state support on which they relied. For instance, the town of Kladno was formerly a heavy industrial area (mining, steelworks, heavy machinery). In the communist period, there was significant migration of people attracted by above-average wages and the housing and education facilities that were organised by the large state-owned companies. The situation changed dramatically after 1989 with the restructuring of the Czech economy and of Kladno's economy. Virtually overnight, the large companies were broken down, privatised or went out of business. Some steel making continued but at a drastically reduced scale (at its peak, this sector employed 20,000 workers in Kladno, now it employs 3,000). All the mines are now closed (the last one closed in 2000). There are some new private companies in the town but a significant part of the working population was absorbed by Prague airport and Prague city itself. This has put pressure on transport infrastructure links to Prague. Close proximity to Prague, has therefore been vital as Kladno has undergone industrial restructuring.²⁵

2.3. Structural changes in the region

Prague has experienced dynamic economic transformation over the past two decades. Basic structural reconstruction has been reflected in changes to the branch structure of the Prague economy. Characteristic features of the development of the Prague economy after 1989 were the strengthening of the sphere of services and a corresponding decrease in the share of manufacturing industries. In 2010, service industries represented 81.8% of value added. The employment rate in this sphere in Prague markedly exceeds data from all the regions. In 2001, 77% of all employed in Prague worked in services and in 2010, the share was more than 82%. The share of the industrial sector in the creation of value added and Prague's employment is much lower than the national average and industry as a branch does not have such an important position in Prague as in other regions of the Czech Republic.²⁶

²³ Parysek, J. (2004). 'The Socio-economic and Spatial Transformation of Polish Cities after 1989'. In *Cities in Transition*, DELA 21, University of Ljubljana, pp. 109-119.

²⁴ Interview, Jakob Hurrle, NGO Multicultural centre Prague.

²⁵ Interview, Miroslav Bernášek, deputy mayor Kladno.

²⁶ Czech Statistical Office (2012) *Statistical Yearbook of Prague 2012*

The structure of employment and GDP generation is in line with Prague's specific status as a capital city with a high concentration of state administration authorities, educational and research institutions, central financial institutions, and large corporations. The structure of GDP generation corresponds to a post-industrial structure, where more than 80% of GDP come from the service sector. The structure of the processing industry is now showing a slight positive shift towards hi-tech production, mainly due to the activities of multi-national enterprises, but the development of the hi-tech sector in Prague, and in the Czech Republic in general, is still lagging behind other countries, as evidenced by the low share of hi-tech output in exports, and the lower value added of exported goods.

As noted above, structural change in Central Bohemia is strongly influenced by its relationship with Prague. Central Bohemia provides a large part of the labour force for the Prague economy and this leads to under-average unemployment rates in the region (6.6% of the active population in September 2013) in comparison with other Czech regions. On the other hand, proximity to Prague leads to regional "brain drain" and causes high disparities within the region in terms of unemployment. While those parts of the region closest to Prague had unemployment rate below 4.5%, peripheral parts of the region (especially the southeast) registered an unemployment rate of over 8% in September 2013. The region has no public university, a role that is again fulfilled by Prague. The region has traditionally strong position in manufacturing industry. In particular, the automotive industry plays a major role in generating gross value added. The region's strong automotive industry is one of the most prominent targets for foreign direct investment. Thus, proximity to Prague and a developed manufacturing industry are the main reasons for the strong economic performance and high increase of GDP in Central Bohemia over the past decade.

2.4. External factors (EU membership, financial crisis)

The global financial crisis has had an impact on territorial development patterns in the Czech Republic. At NUTS 3 level, the impact of the crisis had no specific regional pattern, and it manifested in all regions by falls in economic output on the one hand and by rising unemployment on the other, especially in the third quarter of 2012 (see Table 3). The spatial data on unemployment suggest that diversified metropolitan regions suffered the least, while the set of most affected regions is quite diverse, covering both old industrial regions and peripheral and rural districts and even one district with a regional capital. The situation of Prague is the most stable, while the unemployment rate varies only relatively moderately among the other regions. Nevertheless, it should be noted that there is increasing awareness that the future economic development of Prague cannot be taken for granted. Driving this is concern that the crisis is having an impact on the development of Prague. Up to now, the city has been able to benefit from its strategic location, historic and cultural assets, concentration of universities etc. to attract investment. However, since 2008 investment patterns have changed and the situation is much less stable. For instance, there is now a much shorter term for return on investment in real estate. Investment flows are changing quickly and it is challenging for strategic planners to take this uncertainty into account. Thus, there is a concern that Prague has to find new development impulses, it must find new development priorities. For instance, there is the question of Prague's connection to European transport networks. Currently, Bratislava is set to be

involved in a major North-South transport axes and this could be an important, missed opportunity for Prague.²⁷

2.5. The regional labour market and social cohesion

Up to the mid-1990s, the issue of social cohesion was not part of the development debate. However, since then public policy in Prague has increasingly focused on the issue as Prague benefited from job growth while some parts of its hinterland suffered from the decline of job opportunities and the dependence of metropolitan region inhabitants on the central city job market increased. Up to now, socio-spatial cohesion has mainly been addressed through a provision of access to jobs via an affordable public transport system. The regional population thus can exercise their right to the jobs and services provided in the regional centre. The provision of an affordable public transport system at the metropolitan scale is seen as vital for participation in the labour market and use of services concentrated in Prague, while maintaining settlements in the city hinterland.²⁸

2.6. Accessibility to public services

Accessibility to services in the metropolitan region varies according to specific services. Under Czech national policy, cities are financed through shared taxes and subventions and this is an important instrument of equalisation. Citizens have a flat rate of income tax and this is positive as it maintains a standardised level of services: there is no incentive to relocate for better services. This approach discourages tax competition between municipalities. The education system can also be seen as an instrument of equalisation but the situation is changing.²⁹ Schools at primary level provide standard education: the state pays for teachers and the municipalities for building maintenance. However, at secondary level this is not the case: there are some more prestigious schools and more private schools. In the 1960s and 1970s the communist system supported development in large centres so there were lots of very small settlements around Prague (of less than 500 people) and no network of schools or technical infrastructure. Up to the 1990s, these settlements had been subject to out migration of younger people, leaving elderly people behind. However, from the 1990s on, there was an outflow of young people from Prague to these areas. The strain on infrastructure is apparent, for instance, in the shortage of kindergartens in some towns.³⁰

2.7. Social issues

As noted in Section 1.2, assessments of poverty, inequalities and social issues in the region vary according to the scale of measurement. To a certain extent, communist period planning limited the development of social disparities. However, conflicts between different demographic and social groups are emerging in certain areas, and more serious problems may burden the city in the future. For instance, demographic ageing and the potential concentration of ethnic communities are among the most discussed social issues, especially with regard to the oldest generation of housing estates.

²⁷ Interview Tomáš Ctibor, Prague Institute of Planning and Development.

²⁸ Interview, Jareš, ROPID.

²⁹ Interview, Tomáš Kostecký head of Local and Regional Sociology research group, Institute of Sociology, Academy of Sciences

³⁰ Interview, Martin Ouředníček. Charles University in Prague

3. Development factors

3.1. Development factors in recent years

Development in Prague continues to rely heavily on the services sector (finance, insurance, telecommunication) and tourism. Additionally, in recent years, high-growth manufacturing industries, have generated a significant increase in value added and employment in the region, particularly in the pharmaceutical industry and the ICT sector. These sectors represent the most innovative branches not only in Prague's economy but the whole Czech economy as well. The growth of these industries is driven mainly by activities of multi-national enterprises as well as newly established small and medium enterprises. The crucial sector in Prague economy – services – has been characterised by a gradual penetration of foreign investment and a subsequent increase of business services and financial intermediation. These branches rank as fundamental pillars of economic growth and competitiveness in Prague (see Table 4). In addition to these branches, Prague competitiveness is positively influenced by the high concentration of research capacities and universities of the Czech Republic.

Table 4: Prague: employment by selected sectors 2012

CZ-NACE code	Empl.
Mining and quarrying	988
Manufacturing	57,793
Electricity, gas, steam and air condit. supply	5,567
Construction	55,401
Information and communication	44,369
Financial and insurance activities	40,454
TOTAL	647,599

Source: Czech Statistical Office, 2013

3.2. Main obstacles that hinder the development process in the region

The governance and coordination of strategic regional development policies in the Czech Republic and in the Prague metropolitan region is one of the main obstacles to development processes (see Section 3).

3.3. FDI and impact on regional economy

The activities of multi-national enterprises are among the most important factors of Prague's economic growth, strengthening the region's competitiveness within EU and global markets (see Table 5). These enterprises are active especially in progressive industries such as business services, financial intermediaries, pharmaceuticals and ICT and have been attracted by the unique position of Prague within the settlement structure, the favourable economic structure with a high proportion of services, the traditionally huge concentration of universities and research institutes, good traffic accessibility and proximity to Germany. Economic growth has been driven mainly by these economic and geo-economic factors to a much greater extent than regional economic or innovation policies.

Table 5: Foreign Direct Investment in Prague region, 2011

Region	EUR ths.
Prague	48,712,800
Czech Republic Average	6,656,012

Source: Czech National Bank, CzechInvest, 2013

Table 6: Top 20 companies in manufacturing industry (ranked by turnover (mil./eur))

Company	Location	Sector	Turnover	Employees
Siemens	Prague	Man. of turbines	1,077	5,000 – 9,999
ABB	Prague	Man. of engines	467	3,000 – 3,999
Nestle	Prague	Man. of food	440	2,000 – 2,499
Mitas	Prague	Man. of tyres	438	2,500 – 2,999
Kraft Foods	Prague	Man. of food	436	500 - 999
Visteon – Autopal	Prague	Man. of lighting and cooling equipment	404	1,000 – 1,499
Hills Pet Nutrition Manufacturing	Prague	Man. of pet food	323	100 - 199
Zentiva	Prague	Man. of pharmaceuticals	256	1,000 – 1,499
Coca-Cola HBC	Prague	Man. of beverages	250	1,000 – 1,499
Unilever	Prague	Man. of food	223	250 - 499
Linde Gas	Prague	Man. of technical gases	219	500 - 999
Eaton Elektrotechnika	Prague	Man. of electronic devices	218	1,000 – 1,499
Opavia LU	Prague	Man. of food	192	1,000 – 1,499
Saint-Gobain Construction Products	Prague	Man. of construction products	179	500 - 999
Prakab	Prague	Man. of wires	173	250 - 499
Mlekarna Pragolaktos	Prague	Man. of food	170	100 - 199
Honeywell	Prague	Man. of electronics	134	2,000 – 2,499
Danone	Prague	Man. of food	133	250 - 499
Kimberly Clark	Prague	Man. of medical tools	115	500 - 999
Cemex	Prague	Man. of construction products	111	250 - 499

Source: Bisnode, Company Monitor, 2013

FDI is also crucial in some Central Bohemian municipalities, particularly those closer to Prague. Prague has stricter planning regulations than the municipalities around them so development was easier around the outside of the city. Prague was strong enough to negotiate strictly with potential investors – who then located in easier regulatory environment of surrounding municipalities).

3.4 Endogenous growth factors: innovation and entrepreneurship

Innovation has not been seen as an important priority in Prague as the focus has been on the development of tourism and services as a way to boost competitiveness.³¹ The process of deindustrialisation that has occurred in Prague since the 1990s is viewed positively but the sectors that have contributed significantly to growth over the past two decades – notably tourism and the service sector – do not automatically produce innovation. In Germany and Austria there is a higher

³¹ Interview, Kristýna Meislová, Technologické centrum AVČR, department of strategic studies.

share of lighter industries in city economies. In several instances, innovation centres in Prague, such as the Czech Technical University, have struggled to find partners in the private sector to develop research. However, there is increasing awareness that much of the potential in these development paths has been used and there is increasing focus on innovation as a future resource. Prague has a concentration of research institutions and universities that is unique in the Czech Republic.³² Almost one third of Czech organisations performing research and development are located in Prague. Prague has almost 50% share of all the organisations performing R&D in the governmental sector and more than 35% share in the public university sector. Over 20% of innovating firms, 75% of institutes of the Academy of Sciences of the Czech Republic, 43 % of universities (public and private) and 30 % of other research institutes (including private companies) have their seats in Prague. 20.5% of workforce in science and technology of the Czech Republic is concentrated in Prague. An employment in science and technology increased from 284 thousands to 346 thousands in 2000-2008. Since the number of researchers and engineers stagnated in this period, the increase was caused mainly by creation of jobs for skilled workers in subsidiaries of transnational corporations.

In the Czech context, Prague holds a strong position in the field of research and development products (e.g. in the number of awarded patents and registered utility models). Nevertheless in comparison with the most developed EU countries, the number of patent applications is very low.

3.5. The SME sector in the regional economy

In terms of innovation in the business sector, an innovation survey conducted by CSO (2010)³³ shows that in Prague, large companies, especially multi-national enterprises, are more innovative than SMEs. This indicates that the sector of innovative firms consist of two main parts: more innovative multi-national corporations locating their R&D activities in Prague; and, less innovative SMEs suffering from a lack of capital necessary for R&D and implementation of innovation and from managerial and personnel weaknesses. This duality creates a potential threat for the further development of Prague's innovation environment and performance. Although Prague dominates in concentration of innovative firms, universities and public research institution, intensity of co-operation among business and public research sectors is rather weak in general. Innovative firms most often co-operate with their suppliers. The low level of co-operation between academic and private sectors is a substantial barrier for the further strengthening of Prague's competitiveness, and suggests that the potential for technology transfer of universities and research institutes is not being fully realised.

3.6. Clusters

In sectoral terms, the structure of R&D institutions in Prague is very diverse and covers all main specialisations. Several highly innovative industries exist in Prague such as the chemical industry (represented mainly by pharmaceutical industry), automotive, ICT and financial intermediation. Technical research and development is carried out primarily at universities (especially the Czech Technical University and the Institute of Chemical Technology); research in natural sciences is mainly conducted at the institutes of the Academy of Sciences. The Czech Technical University research is

³² Čadil, V. and Vanžura, J. (2011) Regional Innovation Monitor 3, Regional Innovation Report (Prague)

³³ CSO (2010) Czech Republic Statistical Yearbook, Prague, CSO, cited in Čadil, V. and Vanžura, J. (2011) op. cit.

focused on engineering, nuclear sciences, architecture, transportation sciences, biomedical engineering and IT.³⁴

4. Governance and local/regional development policies

The strategic objectives of Czech regional policy are established in the Regional Development Strategy for 2007-13, which also specifies the regions designated for concentrated State aid.³⁵ The RDS 2007-13 presents the principal strategic direction for national regional policy, although it is strongly shaped by EU Cohesion policy.³⁶ However, it is not a direct instrument for the distribution of financial sources for regional development, but rather a basis for the preparation of regional development programmes and for the incorporation of the regional dimension into sectoral policies and OPs. Consequently, the RDS 2007-13 should be followed by all relevant public administration bodies when designing their strategies, measures and interventions. However, it can be argued that to a large extent the developmental strategy defined by this document is not widely respected and is even disregarded by sectoral ministries and other authorities. Consequently, there is only limited coherence and coordination among sectoral policies in terms of efforts to fulfil the objectives of the RDS 2007-13 as an overarching development strategy.³⁷ One of the key reasons is that no government body exercises sufficient coordinating responsibilities over all sectoral policy institutions.³⁸

Each self-governing region coordinates and realises its 'own' regional development support. Regional authorities monitor intra-regional disparities and prepare and implement their regional development strategies/programmes. These documents are nevertheless in principle relatively tightly linked to EU Cohesion policy, at least in terms of implementation. In 2007-2013, regional assemblies coordinated regional development on their territory by producing, implementing and monitoring the Cohesion-policy funded regional operational programmes that are delivered at NUTS 2 level as well as regional development programmes such as the rural renewal programmes. They also have the competence to establish regional development agencies which exist in a variety of forms. Other important actors are innovation centres, technology parks and cluster organisations.

The governance and coordination of regional development policies in the Czech Republic and in the Prague metropolitan region is challenging. First, the role of the state is dominant due to its economic role and its ownership power. This makes it difficult for municipalities to escape a 'dependence syndrome'.³⁹ The role of regional authorities is relatively weak due to limited own budgets and competences. Second, the division of different competences between national, regional and local

³⁴ Čadil, V. and Vanžura, J. (2011) op. cit.

³⁵ Ministry of Regional Development (2006) Regional Development Strategy of the Czech Republic for the period 2007-2013, Prague, 109pp. (in Czech) www.mmr.cz/getdoc/f77e14bc-2c26-4884-9fda-b47c24a5294b/Strategie-regionalniho-rozvoje-Ceske-republiky-pro (accessed 22 April 2013).

³⁶ Jungwiertová, Feřtřová and Blažek, (2013) op. cit.

³⁷ BermanGroup, Cassia and EEIP for Ministry of Regional Development (2009a) Assessment of Coherence between Objectives and Priorities of the EU Programmes and Objectives and Priorities of the Regional Development Strategy 2007-2013, (Final summary report), 38pp (in Czech).

³⁸ Interview, Martin Tunka, Ministry of Regional Development, Dept. of master planning.

³⁹ Interview, Martin Ouředníček. Charles University in Prague

levels can hinder the coordination of development policy.⁴⁰ Each level has specific planning competences. Regional development planning as a whole is the competence of the Ministry of Regional Development through the National Regional Development Strategy. Self-governing regions use various strategic plans to formulate development policies. At the local level, there are different kinds of strategic plan but they are only used for local purposes. The communication bridge between the local and regional level is weak and the officials of the corresponding region do not know what the real needs of the local people are. Thus, in terms of urban development, internal urban problems in individual cities can be assessed and tackled (at the local level) by a single municipal government as urbanised areas in the Czech Republic are covered by one local government administration. Cities are 'over-bounded' i.e. their administrative territory is larger than the built-up area and beside the core city also includes a bundle of small village-type settlements and agricultural land. However, a different situation concerns metropolitan development in the functional urban region, i.e. in the area that is closely linked through commuting for work, services, education, culture etc. The area extends far beyond the administrative boundary of the core city but metropolitan areas do not exist as independent units in the Czech Republic. They consist of core cities and, given the fragmented system existing at the local level, a large number of usually small municipalities, ranging from villages of a few hundred inhabitants to small towns with populations of around ten thousand. Local governments of core cities can govern the spatial and land use development in the city itself and in the suburban areas that lie within its jurisdiction. However, they cannot directly influence development beyond their administrative boundary. Development there is in the hands of a large number of local governments of usually very small municipalities.

Third, coordination is hindered by the separation of physical planning and strategic planning. In the Czech Republic, physical or urban planning dominates strategic planning. In some western European countries urban and strategic planning make a complementary complex of spatial planning together, in the Czech Republic, these types of planning are separate and the role of strategic planning in regional development is relatively neglected. Cities prepare municipal development programmes that are called Strategic Plans. These identify economic, social and environmental development priorities. They are seen as increasingly important as process-oriented frameworks based on communication and consensus among stakeholders and integrating 'top down' and 'bottom up' objectives.⁴¹ Strategic planning is seen in contrast with physical planning. Physical plans are the major instrument for cities to control the territorial development of their municipality, including the location of new developments, relations between different funds, major infrastructure etc. They are based on strict specification of legal, regulatory and geographical limits for development while strategic planning is more pro-active and flexible.⁴² Strategic planning is also used for bidding for domestic and EU funding.

All of this has important implications for the coordination of development in the Prague metropolitan region. In the hinterland of Prague there are 171 such municipalities and fragmented metropolitan decision-making is particularly serious given rapidly developing suburbanisation that in some areas is becoming a sprawl. The coordination of metropolitan development rests on regions, whose priorities

⁴⁰ Interview, Jiří Blažek, Charles University Prague

⁴¹ Interview, Radim Perln, Institute of Development of Prague (URM), coordinator of new Strategic Plan.

⁴² Interview, Ludek Sykora, Charles University Prague.

thus far have not included issues such as sprawl. Prague metropolitan area, the country's largest, is under the government of two regions: Prague and Central Bohemia. These two regions would have to cooperate to achieve an integrated metropolitan strategy but such cooperation has been limited. There are political differences: Prague has mostly supported the 'right of centre' ODS party supporting over the past decade while Central Bohemia has tended to support social-democratic parties. Cooperation between municipalities often means bringing together a wide range of actors coming from areas of different size and strength. It is difficult to arrange negotiations between the mayor of Prague and the mayor of a small municipality although in theory both have equal competences in the field of planning. An obvious example is the construction of the ring-road around Prague which has been held up because of objections from some municipalities.

However, efforts are underway to overcome these obstacles to coordination. Within Prague, a new Metropolitan Sounding Board was recently established as an expert advisory body for the City Council covering development issues. The main task is to provide feedback to City Council and make recommendations to address specific issues related to the development of the City. It includes academics, NGOs and civil society representatives.⁴³ New coordination initiatives between Prague and Central Bohemia have been driven by several factors. First, recent negotiations between the two have been prompted by growing realisation of the importance of common issues such as technical infrastructure. This is particularly the case for Prague which in the past has often viewed negotiations as unnecessary because it is in such a strong position. Cohesion policy has also played an important part in this. Many of these projects are funded through ERDF. Initially Prague was left out of mainstream EU funding and this had a negative impact on development (e.g. in terms of transport, support for infrastructure). Prague had to be involved in these issues, given its status in the Czech Republic. This has happened in the current 2007-13 period and it has provided a strong positive stimulus for coordination and partnership-building with Central Bohemia. Based on this, the city authorities in Prague and the regional authorities in Central Bohemia recently signed a memorandum of cooperation and they are currently working on how to cooperate on issues such as public transport in order to make services more efficient (e.g. through the introduction of 'park and ride' and water management plans, in the context of flood threats that concern the whole area.⁴⁴ Some prospects for the future improvement of horizontal coordination can be attributed to the strengthening of the partnership principle in overall Czech policy practice. Real potential for enhancement of regional development coordination might lie in the methods used in preparation of the next generation of domestic and EU-funded regional development strategies, Regional Development Strategy 2014+, which are mobilising representatives of all relevant ministries, self-governing regions, economic and social partners, municipalities and other actors.

The case of Prague Integrated Transit System (ROPID) is a rare example of metropolitan cooperation between Prague, a large number of municipalities in surrounding region and publically owned and private transportation companies. The aim of the project is to provide an attractive, affordable and feasible alternative to the private car for mass movement within the metropolitan area. In this way it addresses the challenge of supporting balanced development by facilitating access to employment

⁴³ Interview, Michaela Pixová, Praguewatch NGO watchdog organization on urban development.

⁴⁴ Interview Tomáš Ctibor, Prague Institute of Planning and Development.

opportunities in Prague to those living in the surrounding areas.⁴⁵ The core of Prague Integrated Transit (PIT) is city mass transit (MHD) served by the city of Prague transport company (*Pražský dopravní podnik*). The MHD network includes three underground lines, a dense network of tram lines serving the inner city and city bus lines primarily oriented towards outer city. In 1991, the city of Prague transport company started to serve neighbouring municipalities. The agency that was to be responsible for the development of integrated transit system at metropolitan level was ROPID (the Regional Organisation for Prague Integrated Transit System) that was established in December 1993 and was wholly owned the Prague City Authority. ROPID was established after intense cooperation between Prague and surrounding municipalities. Commuting patterns were such that there was stronger need for integration between Prague and municipalities surrounding the city than between municipalities in Central Bohemia itself. ROPID first introduced a unified fare and ticketing system for zones within and outside Prague covering participating municipalities in 1995. Park and ride facilities have been developed since 1998, however, at a slower pace than planned. The organisation is now the focus through which municipalities can discuss mass transport planning issues. The system has rapidly expanded from a position in 1995 when it served 15 municipalities to a position of serving 159 municipalities in 2000 and then 299 in 2008. It covers the city of Prague and it also covers around one-third of the Central Bohemia region (mostly municipalities located around the city in suburban commuting zones). At the same time, the Central Bohemian region developed its own integrated transport system. These two systems are not integrated with each other: there are areas of overlap in certain parts of the region.

At the end of 2012, an agreement on cooperation was reached between Prague and Central Bohemia and the aim is to develop ROPID further. The first phase of this cooperation has just been completed with the finalisation of analytical studies. Priorities will now be developed through different working groups although reaching consensus among different partners – city and regional authorities as well as private transport firms – will be challenging. ROPID is intensively involved in the preparation of the new Prague Strategic Plan, including through the provision of data and documentation and in making proposals. Cohesion policy has played an important part in the development of ROPID in several ways. At a basic level, it provided important funds for the development of transport infrastructure owned by municipalities and transport companies. JASPERS has also been involved although there are some tensions again concerning the focus on development in Prague and outside of Prague. ROPID favours the establishment of a new station in the city of Prague that could link to the tramway system and ease congestion in the inner city. However, the JASPERS agency is questioning this and suggesting that transport networks should become more diffused. There will potentially be scope to use ITI to develop a more integrated approach to transport systems – it can be argued that support for transport infrastructure in Prague will benefit municipalities in Central Bohemia by facilitating commuting.

5. External interventions: national policies and EU cohesion policy

External interventions in the field of regional policy in Prague metropolitan region are dominated by Cohesion policy as the associated funding is much larger than that provided from purely domestic sources. EU resources amount to €23.8 billion (at 2004 prices) in 2007-13. In comparison, explicit

⁴⁵ Interview, Jareš, ROPID.

national regional policy has a budget of CZK 175 million in 2013 (c. €6.8 million). The budgets of the municipalities and regions are significantly higher, at nearly CZK 400 billion per year (c. €15.4 billion). It is important to reiterate that Cohesion policy programme areas do not correspond to the Functional Metropolitan Area or even the Metropolitan Region and this is a serious obstacle for many integrative initiatives. While Prague is covered by a Regional Competitiveness and Employment OP for the 2007-13 period, the surrounding region of Central Bohemia (and the other Czech regions) are supported through the Convergence objective.

An important focus of Cohesion policy interventions in both Prague and Central Bohemia has been transport and environmental infrastructure and this is an area where there has been increasing cooperation between Prague and central Bohemia in recent years. Cohesion policy has been important in the construction of anti-flood defences and in construction of the metro in Prague although there could be challenges in securing additional funding and match funding in the future. There are also lots of small projects at the local level. Support for R&D and innovation has represented a more modest part of Cohesion policy funding up to now, although the proportion assigned to these issues increased across the 2004-2006 and 2007-2013 programming periods. Moreover, Cohesion policy support for these types of intervention are considered crucial given the paucity of alternative funding sources. Cohesion policy support is considered fundamental to the development of innovation. According to observers, innovation would not happen without ex-ante conditionality on an RIS to kick-start the process. The predominance of SFs support of R&D and innovation in Prague is of such that many claim that the RIS would not be implemented at all if SFs money were not available.⁴⁶ For instance, during the 2004-2006 period, Cohesion policy supported the Centre for Knowledge and Technology Transfer at Charles University and the Innovation Centre of Business Incubators and the Innovation Biomedical Centre of the Institute of Experimental Medicine of the Academy are among the most important projects supported by ERDF.

Nevertheless, the tangible results of these activities can only be expected only in the medium and long-term. Moreover, although in the current programming period (2007-2013), the Prague OP Competitiveness is much more focused on R&D and innovation, the division of the functional region under Convergence and RCE objectives complicates implementation under these headings. Cooperation concerning RTDI is challenging under Cohesion policy. The OP Research and Innovation offers great opportunities in this field but under EU eligibility rules, it cannot be used in Prague. This led to the situation where three major research centres were located just outside the Prague border in Central Bohemia. The logic of locating these centres outside of Prague and at a distance from the main universities to which they are linked is questionable. However, the Prague ERDF OP cannot fund RTDI infrastructure.⁴⁷ There is also a danger that the establishment of major research centres outside of Prague will have negative consequences in the future: the need to maintain research infrastructure in the long-term (i.e. once EU funding has decreased) could constrain the resources available for research investment in Prague itself.

Thus, one outcome of Cohesion policy regulations is the decentralisation of certain activities from Prague throughout the Central Bohemia region. The innovation system has become more dispersed and fragmented away from the Prague core and although this makes sense in a large centres like

⁴⁶ Interview, Kristýna Meislová, Technologické centrum AVČR, department of strategic studies.

⁴⁷ Interview, T Petr Štěpánek, ÚRM head of environmental working group, Prague Strategic Plan.

Kladno with good connections to Prague city, elsewhere the logic is not so clear. Again it should be noted that Central Bohemia is a very diverse region with differences in settlement size and socio-economic profile and disconnected in terms of Cohesion policy support this makes it difficult to build an integrated approach or to concentrate services in a strategic way. Competition and rivalry between municipalities often creates a complicated pattern of support. In comparison there are other Czech regions (eg. South Moravia) with strong regional capitals that play a strong leading role in developing strategic plans for regional development. The problem with the 'cohesion region' structure is that it is artificial and it puts together areas that have little in common in terms of strategic economic development needs and opportunities (e.g. Kladno is covered in the same terms as small rural municipalities).⁴⁸

6. Future prospects

6.1. Opportunities and threats for the development of the region

Looking to the future, a number of potential threats to the balanced development of the metropolitan region can be identified. At a basic level, there is a perceived need among policymakers and academics in the region for stronger strategic planning and coordination. For a variety of reasons, strategic frameworks have not been influential in the development of the region over the past two decades. However, there is now an emerging consensus that the challenges facing Prague and its hinterland demand the identification of fresh strategic development priorities. A new generation of strategies is currently being developed: a metropolitan plan (which deals with land use issues); a Strategic Plan that cuts across the city boundary and looks at functional linkages; new Cohesion policy operational programmes; and a new Regional Innovation Strategy. The quality of these strategies, the force and funding associated with them and their coordination is seen as crucial to the future development of the region.

In particular, there is a need for stronger strategic coordination between Prague and Central Bohemia. Governance, administration and communication has been weak in this respect. Most cooperation happens on a personal basis rather than through structures or established coordination mechanisms.⁴⁹ This applies to cooperation both within the city and between the city and the surrounding hinterland. An earlier version of the Strategic Plan highlights areas where coordination can be strengthened: Establishing of 'communication and coordination' rules between the City of Prague and the Central Bohemia Region.

- Joint preparation of specific projects that require co-funding from the state budget and in particular from EU funds.
- Development of transport links between Prague and the Central Bohemia Region (transport service of municipalities in Central Bohemia as part of the Prague Integrated Regional Transport System, Prague – Kladno railroad etc.).
- Co-ordinated location of major investments in areas of joint interest (hypermarkets, industrial complexes, technology parks, service facilities etc.).

⁴⁸ Interview, Miroslav Bernášek, deputy mayor Kladno.

⁴⁹ Interview, Karel Maier, ČVUT Czech Technical University Prague.

- Joint solutions to specific labour market issues (re-qualification schemes, employment of certain groups of citizens, etc.).
- Joint solutions of waste water treatment, collaboration in the area of waste management, cooperation in the supply of heat, water and electricity.
- Coordinated preservation of water courses and the countryside (esp. protected areas) and the promotion of a 'green belt' around Prague.
- Coordination of tourism: joint promotion of the whole metropolitan area, greater links between tourist attractions of Prague and Central Bohemia, better information systems.
- Optimization of the catchment areas of health and school facilities of regional importance in Prague.

In terms of specific threats, there is a danger that processes of social polarisation and fragmentation which have so far been delayed by the communist legacy will strengthen. Prague could eventually experience negative consequences from its relationship with the surrounding region. In recent years, the municipalities around Prague have experienced an influx of young, educated people while the inner city has an ageing population (Tomas interview). R&D and innovation will be important to future development. As noted in Section - , although Czech resources are concentrated in Prague, the region's performance has been weak: large companies, especially multi-national enterprises, are more innovative than SMEs; intensity of co-operation among business and public research sectors is not strong and the low level of co-operation between academic and private sectors could be seen as a severe barrier for the further strengthening of Prague's competitiveness.

Cohesion policy programmes will be crucial to development. The separation of Prague and Central Bohemia has added to the complexity of governance in the metropolitan region. A prominent example of this is the location of three major research centres in Central Bohemia at some distance from the main universities in Prague. Nevertheless, this provides a stimulus for stronger functional integration in the 2014-2020 period (interview Central Bohemia). Prague will be eligible for support from the Research and Development OP and there should be more emphasis on supporting research itself and linking research with SME start-ups and business investment centres. In Central Bohemia, innovation support through Cohesion policy should include support for R&D infrastructure, particularly around these new research centres.

According to interviewees, the implementation of Cohesion policy should also be revised to strengthen its strategic impact. Regional authorities should be more involved in the development of OPs and in their evaluation: there has to be a stronger 'feedback loop'. Regional stakeholders should be more involved in setting project selection criteria and in selecting projects in order to strengthen the regional perspective. This also applies to sectoral OPs. For instance, the OP Business and Industry had a measure on clusters and regional interests should have a stronger say in how this was developed and implemented in the region. Local community involvement should also be emphasised, for instance through a more prominent role for Local Action Groups in grant applications. Finally, in order to facilitate EU support and ensure a lasting impact it is important to move away from dependency on the project cycle model in Cohesion policy. It would be more efficient to contribute to the creation of lasting public goods or services.

7. Conclusions

7.1. Main trends in restructuring the regional economy

Development in Prague continues to rely heavily on the services sector (finance, insurance, telecommunication) and tourism. Additionally, in recent years, high-growth manufacturing industries, have generated a significant increase in value added and employment in the region, particularly in the pharmaceutical industry and the ICT sector. These sectors represent the most innovative branches not only in Prague's economy but the whole Czech economy as well. The growth of these industries is driven mainly by activities of multi-national enterprises as well as newly established small and medium enterprises. The crucial sector in Prague economy – services – has been characterised by a gradual penetration of foreign investment and a subsequent increase of business services and financial intermediation. These branches rank as fundamental pillars of economic growth and competitiveness in Prague. In addition to these branches, Prague competitiveness is positively influenced by the high concentration of research capacities and universities of the Czech Republic, although the full potential of this is yet to be exploited.

7.2. Important factors of regional development

Prague benefits from important endogenous resources as the natural economic, scientific, educational, cultural, and political centre of the Czech Republic. The country's services sector (finance, insurance, telecommunication) is concentrated there as is the gross value added generated by the governance sector. At the same time, exogenous forces are crucial to development in Prague. The majority of FDI in the Czech republic is concentrated in and around Prague and the most innovative branches not only in Prague's economy but the whole Czech economy as well are driven mainly by activities of multi-national enterprises. The structure of the processing industry is now showing a slight positive shift towards hi-tech production, mainly due to the activities of multi-national enterprises.

7.3. Productivity growth and innovative capacity

Although Prague dominates in concentration of innovative firms, universities and public research institution, intensity of co-operation among business and public research sectors is weak. A major challenge in increasing innovative capacity is the weak institutional and strategic framework. Much of the impetus for innovation comes from the activities of multi-national firms rather than endogenous factors. Prague has the Strategic Plan and Cohesion policy programmes to support innovation and R&D but there is no co-ordination mechanism dedicated to innovation support. Cooperation among research centres, public authorities and the private sector is also low, evident in the weakness of industrial clusters and regional technology platforms in the region. There are currently opportunities to improve innovation capacity: the new Strategic Plan prioritises innovation support and the process of elaborating the strategy can improve coordination among actors. The Prague innovation policy has been realised mainly through Cohesion policy and the 2014-2020 period provides a significant opportunity for capacity building through new operational programmes and Regional Innovation Strategies in Prague and Central Bohemia.

7.4. Social disparities and economic growth

This communist legacy has been beneficial in the region as it has minimised social polarisation to a certain extent. However, conflicts between different demographic and social groups are emerging in certain areas, and more serious problems may burden the city in the future. For instance, demographic ageing and the potential concentration of ethnic communities are among the most discussed problems, especially with regard to the oldest generation of housing estates. Moreover, in the regional hinterland, proximity to Prague leads to regional "brain drain" and causes high disparities within Central Bohemia in terms of unemployment. While those parts of the region closest to Prague had unemployment rate below 4.5%, peripheral parts of the region (especially the southeast) registered an unemployment rate of over 8% in September 2013.

7.5. Most successful regional/local policies

In terms of policies covering the functional region, the most successful interventions relate to transport. Prague strives for coordination of development policies with surrounding Central Bohemia Region but the governance and coordination of regional development policies is complex and challenging. The case of Prague Integrated Transit System (ROPID) is a rare example of metropolitan cooperation between Prague, a large number of municipalities in surrounding region and publically owned and private transportation companies. The initiative facilitates affordable public transport within the metropolitan area, addressing the challenge of supporting balanced development by facilitating access to employment opportunities in Prague to those living in the surrounding areas.

7.6. Importance of external intervention

External interventions in the field of regional policy in Prague metropolitan region are dominated by FDI and the activities of multi-national firms and Cohesion policy. FDI is crucial in the region, although research indicates that the potential offered in terms of prompting endogenous innovative approaches has been limited thus far. Cohesion policy support is also fundamental as the associated funding is much larger than that provided from purely domestic sources. Cohesion policy provides important benefits: a guaranteed source of funding that is significantly higher than available domestic resources; a strong impetus for support of specific themes, including innovation; a model of management and implementation for development interventions (including principles of monitoring, evaluation, financial control etc.); and, a platform for increased coordination and partnership for regional actors that is crucial given traditionally weak coordination. On the other hand, there are challenges associated with the administrative costs of implementation and adapting to EU regulations. Notably, the division of the functional region into separate Cohesion policy programmes has further complicated the governance of development policy. The ongoing issue is one of flexibility and the reliance on statistical data to set eligibility. This still has the tendency to isolate Prague from the rest of the country despite the leading role it should play – rather than spatial NUTS categorisations a more functional approach is needed where territorial specificities can be taken into account. A notable example is the location of major research centres in Central Bohemia at some distance from associated research centres in Prague, due to eligibility rules. Nevertheless, looking forward to the 2014-2020 period there are significant opportunities to develop a stronger more coherent innovation system in the region with the support of EU funds.

Annex: list of interviewees

Institution	Description	Contact person	position
Institute of development of Prague (URM)		Tomáš Ctibor	head of the institute
Institute of development of Prague (URM)		Radim Perlín	coordinator of new strategic plan, geographer
		Milan Turba	former long-term head of strategic planning unit at URM
Central Bohemian Region	self-government region, surrounding Prague, includes whole Prague metropolitan region outside the city itself	Marcel Chládek	regional board member, responsible for regional development and EU funds (since 2008)
ROPID	organizer of Prague regional transport	Pavel Procházka	director
City of Kladno	largest city in central bohemian region (70 000), close to Prague, former mining/heavy industry center	Miroslav Bernášek	deputy mayor, worked on the ČVUT campus in Kladno
ČVUT Czech Technical University Prague		prof. Ing.arch. Karel Maier, CSc.	professor of urban planning
Charles University in Prague		Jiří Blažek	geographer, specialized in regional development, EU funds
Charles University in Prague		Ludek Sykora	
MKC Praha	NGO Multicultural centre Prague	Jakob Hurrle	
Praguewatch	NGO watchdog organization on urban development	Michaela Pixová	
TU Liberec, ÚRM		Petr Štěpánek	head of environmental working group, Prague strategic plan
AURS, sro.	urban and regional planning institute	Ing.arch. Milan Korner, CSc.	planner specialised on large urban regions - Prague metropolitan region
Technologické centrum AVČR	department of strategic studies	Kristýna Meislová	research and development
Institute of Sociology, Academy of Sciences		Tomáš Kostecký	head, Local and Regional Sociology research group
Charles University in Prague		Martin Ouředníček	urban geographer, researching suburbanization
Ministry of regional development		Ing. arch. Martin Tunka, CSc.	head, dept. of master planning
NGO, quality of life, alternative transport	Vít Massare		

Appendix

1. INTRODUCTION

1.1. History and location

- Prague has an advantageous, central location in Central Europe. The city lies in close proximity to the borders of neighbouring countries and their main cities (especially Vienna, Bratislava, Berlin and Warsaw). Prague's central position within the Czech Republic makes it a natural focus for the country.
- As well as its strategic location, Prague benefits from substantial historic and cultural assets. For much of its existence, Prague has been a political, cultural, and economic centre of Central Europe, not only as the capital of the Czech state, but also the seat of two Holy Roman Emperors. It was an important city of the Austro-Hungarian Empire. The city has a number of famous historic and cultural attractions: since 1992, the extensive historic centre of Prague has been included in the UNESCO list of World Heritage Sites.

1.2. Basic socio-economic characteristics

- Prague dominates the settlement and regional system in the Czech Republic. The city accounts for 12% of the country's population, 15% of jobs and over 25% of the GDP. Prague is one of the most-developed EU NUTS 2 regions according to GDP per capita (173 percent of the EU27 average in 2011). The dominance of Prague has strengthened significantly during transition, and no other Czech region has improved its relative economic standing to a similar extent. According to data from the Czech statistical Office, in 2013 Prague accounted for over 25% of national GDP. In comparison to other EU regions as GDP per capita accounts for 172% of EU-27 average.⁵⁰
- Basic features of the economic development of Prague are the strengthening of the service sector and the decreasing share of productive industries in gross value added: the service sector now represents more than 80% of the total gross value added in Prague. A crucial branch for Prague's economy is tourism. Prague has become a favourite destination of tourists from abroad, who represent more than 90% of all accommodated guests. Although the global financial crisis has had an impact on territorial development patterns across the Czech Republic, the situation of Prague is relatively stable.
- The regional economy has undergone a major transformation since early 1990s with significant increase in gross value added in trade, ICT and financial services. Nowadays, the sector of services plays a major role in Prague economy as it accounts for almost 84% of gross value added creation and 83% of employment. Industry and construction sectors account for 15% of gross value added and 17% of employment.⁵¹
- Prague is the second largest Czech region in terms of population size with 1.2 million inhabitants. In terms of population structure, in recent years, the municipalities around Prague have experienced an influx of young, educated people while the inner city has an ageing population. Foreigners account for nearly 13% of inhabitants which is three times higher than the country's average. However, national minorities are not concentrated in

⁵⁰ Czech Statistical Office (2013) Characteristics of the capital city of Prague.

⁵¹ Ibid.

specific locations and social structure thus remains quite homogeneous throughout the whole city area.

1.3. Administrative and governance context

- Prague has special status, as both a municipality and as a region, enclosed by the region of Central Bohemia: within the same boundaries it is a municipality, a self-governing region and both NUTS 2 and NUTS 3 region. Prague is autonomously governed by the Prague City Assembly and other authorities. There are 14 self-governing territorial regions, established in 2001 at NUTS 3 level (13 regions and the city of Prague). Regional self-government is provided by directly elected assemblies. Each region has its own assembly, governor and government with responsibility for upper secondary education, regional public roads and transport, health care/ general hospitals, and social aid and some social policies for disadvantaged groups. From the point of view of the execution of state administration, Prague is divided into 22 administrative districts and from the point of view of local administration, into 57 autonomous city municipalities with their own elected authorities. These municipalities are heterogeneous in terms of area, population, degree of urbanisation, quality of technical infrastructure and socio-economic living conditions.
- For planning EU Cohesion policy programmes, eight Cohesion regions operate at NUTS 2 level through an administrative merger of the 14 regions. The cohesion regions have regional councils that act as managing authorities for the 2007-13 ROPs. These are administrative units rather than self-governing institutions: self-governing regional assemblies at the NUTS 3 level elect regional councils at the NUTS 2 level. The Prague region is the only region to fall under the Regional Competitiveness and Employment Objective and Prague City Hall is Managing Authority for two OPs, one supported by the ERDF and the other by ESF.

2. Trajectories of economic development and structural change, social cohesion

- According to Czech official statistics, Prague's GDP has increased steadily over the past 15 years: in 2007, the level of GDP increased by 66.5% since 2000 and reached 215% of the Czech Republic average (200% in 2000), while GDP of the whole republic increased only by 53%. In 2013, Prague accounted for over 25% of national GDP. The high level of GDP and its high growth rate is positively influenced by a unique position of Prague in settlement and economic systems of the Czech Republic. Prague is a natural economic, scientific, educational, cultural, and political centre of the Czech Republic. The country's services sector (finance, insurance, telecommunication) is concentrated there as is the gross value added generated by the governance sector.
- Several legacies of the former socialist system can still be identified and these still influence development in Prague. First, the relative neglect of strategic development planning in the city can be seen as a reaction to socialist-period central planning (as well as reflecting the dominance of neo-liberal principles, particularly in the 1990s). Communist planning also contributed to the functional separation of Prague from the surrounding Central Bohemian region. Communist efforts to balance the development of the urban system halted the dynamic population concentration and spatial expansion of Prague. It shifted the allocation of investment, jobs, housing construction and other functions to other areas. Communist planning also produced a specific socio-spatial structure in Prague, particularly through the construction of large housing estates and transport systems. Some of the main issues facing Prague authorities today stem from socialist-era legacies: increasing car traffic, the decline of the city centre population, demographic ageing and social deterioration of some housing estates, and unregulated suburban development.

- Concerning structural changes, the Prague economy has undergone a major transformation since early 1990s with significant increase in gross value added in trade, ICT and financial services. Key trends since 1989 include the strengthening of the sphere of services and a corresponding decrease in the share of manufacturing industries. The structure of GDP generation corresponds to a post-industrial structure, where more than 80% of GDP come from the service sector. The share of the industrial sector in the creation of value added and Prague's employment is much lower than the national average. The structure of employment and GDP generation is in line with Prague's specific status as a capital city with a high concentration of state administration authorities, educational and research institutions, central financial institutions, and large corporations. The structure of the processing industry is now showing a slight positive shift towards hi-tech production, mainly due to the activities of multi-national enterprises, but the development of the hi-tech sector in Prague, and in the Czech Republic in general, is still lagging behind other countries, as evidenced by the low share of hi-tech output in exports, and the lower value added of exported goods.
- In terms of exogenous factors, the global economic crisis has had a relatively limited impact on Prague thus far. Nevertheless, it should be noted that there is increasing awareness that the future economic development of Prague cannot be taken for granted. Driving this is concern that the crisis is having an impact on the development of Prague. Up to now, the city has been able to benefit from its strategic location, historic and cultural assets, concentration of universities etc. to attract investment. However, since 2008 investment patterns have changed and the situation is much less stable. For instance, there is now a much shorter term for return on investment in real estate. Investment flows are changing quickly and it is challenging for strategic planners to take this uncertainty into account. Thus, there is a concern that Prague has to find new development impulses, it must identify new development priorities. Membership of the EU is generally perceived to have been beneficial for Prague, opening up trade for enterprises and making available a crucial source of development funding.
- Concerning access to services, under Czech national policy, cities are financed through shared taxes and subventions and this is an important instrument of equalisation. Citizens have a flat rate of income tax and this is positive as it maintains a standardised level of services: there is no incentive to relocate for better services. This approach discourages tax competition between municipalities. Nevertheless, the changing socio-economic and demographic profile of different parts of Prague has put some strain on service infrastructure, reflected for instance, in the shortage of kindergartens in some areas.
- To a certain extent, communist period planning limited the development of social disparities. However, conflicts between different demographic and social groups are emerging in certain areas, and more serious problems may burden the city in the future. For instance, demographic ageing and the potential concentration of ethnic communities are among the most discussed social issues, especially with regard to the oldest generation of housing estates. The growing number of homeless people in Prague is also increasingly debated.

3. Development factors

Several related factors can be identified as drivers of Prague's growth over the past decade:

- Prague is the geopolitical and social centre of the country and its prime representative. Prague provides a base for the headquarters of the state authorities, important institutions and companies that operate throughout the whole Czech Republic.
- The activities of multi-national enterprises are among the most important factors of Prague's economic growth, strengthening the region's competitiveness within EU and global markets.

The cost of labour, level of rents of office spaces and the climate government creates for business are cited as important attractions.

- The sectoral structure of the Prague economy has changed significantly, now resembling the standard appearance of large West-European cities with more than 80 % of GDP generated in the service sector. In particular, the group of commercial and strategic services with high innovation quality has been developed which now represents 25 % of the Prague’s economy performance.⁵²

The main obstacles that hinder the development process in Prague include:

- The effects of the crisis. Despite performing well in comparison to other parts of the Czech Republic, some of the current negative global trends are apparent in Prague. This has been reflected, for instance, in the increased caution of investors and stricter conditions of banks for lending financial resources during the economic crisis. As a result, there has been a slump in new construction projects and the number of transactions concluded.
- Limited public administration budgets. Related to the crisis, Prague City Authorities, along with other public authorities in the country, are experiencing fiscal problems and this has an impact on efforts to address key issues such as housing provision, transport linkages etc.
- Weaknesses in domestic research and innovation framework. Although most of the Czech Republic’s capacity in terms of R&D and innovation is concentrated in Prague, much of this relies on the activities of multi-national firms. Connections between domestic firms, research centres and public authorities are weak.
- Finally, the governance and coordination of strategic regional development policies in the Czech Republic and in the Prague metropolitan region is one of the main obstacles to development processes

3a. External context of development: trade and FDI (external interventions see part 5)

- The activities of multi-national enterprises are among the most important factors of Prague’s economic growth, strengthening the region’s competitiveness within EU and global markets (see Table 1). These enterprises are active especially in progressive industries such as business services, financial intermediaries, pharmaceuticals and ICT and have been attracted by the unique position of Prague within the settlement structure, the favourable economic structure with a high proportion of services, the traditionally huge concentration of universities and research institutes, good traffic accessibility and proximity to Germany. Economic growth has been driven mainly by these economic and geo-economic factors to a much greater extent than regional economic or innovation policies.

Table 1: Foreign Direct Investment in Prague region, 2011

Region	EUR ths.
Prague	48,712,800
Czech Republic Average	6,656,012

Source: Czech National Bank, CzechInvest, 2013

3b. Endogenous growth factors: innovation and entrepreneurship

- Innovation has not been seen as an important priority in Prague as the focus has been on the development of tourism and services as a way to boost competitiveness. However, there is

⁵² Strategic Planning Department, City Development Authority Prague (2012)

increasing awareness that much of the potential in these development paths has been used and there is increasing focus on innovation as a future resource.⁵³ Prague represents a major concentration of R&D and innovation activities in the Czech Republic, especially regarding research funded from public sources in public research institutes and public universities. Prague has a concentration of research institutions and universities that is unique in the Czech Republic.⁵⁴ Almost one third of Czech organisations performing research and development are located in Prague. It is the location of for 50 out of 74 public research institutes in the Czech Republic and for 8 public universities (one third of the country's total). These cover a broad range of scientific branches with no apparent specialization. Prague has almost 50% share of all the organisations performing R&D in the governmental sector and more than 35% share in the public university sector. Over 20% of innovating firms, 75% of institutes of the Academy of Sciences of the Czech Republic, 43 % of universities (public and private) and 30 % of other research institutes (including private companies) have their seats in the city. Prague-based organizations and firms account for the majority of exports of technological services and high-tech products and share on income from intellectual property rights (95%).⁵⁵

- In terms of innovation in the business sector, an innovation survey conducted by CSO (2010)⁵⁶ shows that in Prague, large companies, especially multi-national enterprises, are more innovative than SMEs. The city is the seat of several multinationals active in R&D (Sanofi-Aventis, Siemens, Sun Microsystems etc.) and the study indicates that the sector of innovative firms consist of two main parts: more innovative multi-national corporations locating their R&D activities in Prague; and, less innovative SMEs suffering from a lack of capital necessary for R&D and implementation of innovation and from managerial and personnel weaknesses. This duality creates a potential threat for the further development of Prague's innovation environment and performance. Although Prague dominates in concentration of innovative firms, universities and public research institution, intensity of co-operation among business and public research sectors is rather weak in general. Innovative firms most often co-operate with their suppliers. The low level of co-operation between academic and private sectors is a substantial barrier for the further strengthening of Prague's competitiveness, and suggests that the potential for technology transfer of universities and research institutes is not being fully realised.

4. Governance and local/regional development policies

The achievements of regional development strategy implementation in Prague have, thus far, been limited by several factors:

- There has been a relative neglect of strategic development planning, in Prague and in other Czech regions. This can be seen as a reaction to socialist-period central planning (as well as reflecting the dominance of neo-liberal principles, particularly in the 1990s). Moreover, the role of regional authorities in supporting regional and local economic development is relatively weak due to limited own budgets and competences. There is a strong reliance on national and, particularly, EU funding for economic development frameworks.

⁵³ Interview Tomáš Ctibor, Prague Institute of Planning and Development

⁵⁴ Čadil, V. and Vanžura, J. (2011) Regional Innovation Monitor 3, Regional Innovation Report (Prague)

⁵⁵ Pechlát, J. (2013) Prague - Background Document 12th Peer Review Workshop, 5-6 November 2013, Economic Analysis and Prognosis Unit, City Development Authority Prague, Strategy and Development Office.

⁵⁶ CSO (2010) Czech Republic Statistical Yearbook, Prague, CSO.

- The fragmented system of public administration has also hindered effective implementation of development strategies. National, regional and local levels have specific planning and strategic development competences. Self-governing regions use various strategic plans to formulate development policies and at the local level, there are different kinds of strategic plan but they are only used for local purposes. Cities are 'over-bounded' i.e. their administrative territory is larger than the built-up area and beside the core city also includes a fragmented system existing at the local level, a large number of usually small municipalities, ranging from villages of a few hundred inhabitants to small towns with populations of around ten thousand.
- Third, coordination is hindered by the separation of physical planning and strategic planning. Cities prepare municipal development programmes that are called Strategic Plans. These identify economic, social and environmental development priorities. They are seen as increasingly important as process-oriented frameworks based on communication and consensus among stakeholders and integrating 'top down' and 'bottom up' objectives. This type of strategic planning is seen in contrast with physical planning. Physical plans are the major instrument for cities to control the territorial development of their municipality, including the location of new developments, relations between different funds, major infrastructure etc. They are based on strict specification of legal, regulatory and geographical limits for development while strategic planning is more pro-active and flexible. Each self-governing region coordinates and realises its 'own' regional development support. Regional authorities monitor intra-regional disparities and prepare and implement their regional development strategies/programmes. These documents are nevertheless in principle relatively tightly linked to EU Cohesion policy, at least in terms of implementation. In 2007-2013, regional assemblies coordinated regional development on their territory by producing, implementing and monitoring the Cohesion-policy funded regional operational programmes that are delivered at NUTS 2 level as well as regional development programmes such as the rural renewal programmes.
- The situation in Prague is particularly complex. The Act on the Capital City of Prague, which came into force in 2000, defined responsibilities and competencies of the Mayor, the Municipal Assembly, the City Council, the Prague City Hall, organisations established by Prague and Prague's boroughs. The Municipal Assembly executes the most important powers in terms of independent operation of the city. The City Council is an executive body in terms of independent operation of the city. Prague City Hall is in charge of policy design and its implementation in general. The City Council can charge individual departments with the creation of specific policies and programmes in the field, which the departments are responsible for. The City Development Authority of Prague is a specific body in the process of policy making. The Authority is a contributory organisation established by the City of Prague dealing with preparation and processing of strategic, town-planning and territorial development documents for the City of Prague. Beyond this, Prague has a specific model for local-level administration. The city has 57 self-governing municipal districts grouped into 22 numbered administrative districts. One municipal district in each administrative district has responsibility for providing certain services for the entire administrative district. Both the citywide government and the municipal districts have elected councils and mayors. As a result, there have often been tensions and overlaps have often occurred between different units, particularly as the, resources and competences of these units can vary significantly.⁵⁷ However, efforts are underway to overcome these obstacles to coordination. Within Prague,

⁵⁷ Maier, K. (2003) 'The Prague metropolitan region' in Salet, W., Thornley A. and Kreukels A. (eds.) (2003), *Metropolitan Governance and Spatial Planning: Comparative Case Studies of European City-Regions*, London, Routledge/ Spon.

a new Metropolitan Sounding Board was recently established as an expert advisory body for the City Council covering development issues. The main task is to provide feedback to City Council and make recommendations to address specific issues related to the development of the City. It includes academics, NGOs and civil society representatives. The development of a new Strategic Plan for Prague has also involved in-depth consultation between different Prague authorities. The case of transport policy highlights both the challenges and potential solutions associated with the governance framework. On the one hand, the challenge of completing a 'ring road' around Prague to ease congestion has been hindered by protests and lengthy negotiations between municipalities.⁵⁸ On the other hand, the Prague Integrated Transit System (ROPID) is a positive example of cooperation between Prague City Hall and municipalities for the improvement of public transport that has subsequently been extended to municipalities in the broader metropolitan region.⁵⁹

5. External interventions: national policies and EU cohesion policy

- External interventions in the field of regional policy in Prague metropolitan region are dominated by Cohesion policy as the associated funding is much larger than that provided from purely domestic sources. An important focus of Cohesion policy interventions in Prague has been transport and environmental infrastructure. Cohesion policy has been important in the construction of anti-flood defences and in construction of the metro in Prague although there could be challenges in securing additional funding and match funding in the future. Support for R&D and innovation has represented a more modest part of Cohesion policy funding up to now, although the proportion assigned to these issues increased across the 2004-2006 and 2007-2013 programming periods. Cohesion policy support is considered fundamental to the development of innovation. According to observers, innovation would not happen without ex-ante conditionality on an RIS to kick-start the process. The predominance of SFs support of R&D and innovation in Prague is of such that many claim that the RIS would not be implemented at all if SFs money were not available.⁶⁰ For instance, during the 2004-2006 period, Cohesion policy supported the Centre for Knowledge and Technology Transfer at Charles University and the Innovation Centre of Business Incubators and the Innovation Biomedical Centre of the Institute of Experimental Medicine of the Academy are among the most important projects supported by ERDF. Nevertheless, the tangible results of these activities can only be expected only in the medium and long-term. The impact of the ESF has been experienced more in the field of human resources, labour force skills and institutional capacity than in other social issues.⁶¹ The system of Cohesion policy implementation in Prague, as in other Czech regions, works in principle and EU funding has helped to develop many areas that were previously more-or-less neglected by public policy. However, there are many problems that can hinder the successful realisation of Cohesion policy, including a complicated implementation system due to many

⁵⁸ Martin Horak. *Governing the Post-Communist City: Institutions and Democratic Development in Prague*. Toronto: University of Toronto Press, 2007

⁵⁹ Interview, Jareš, ROPID.

⁶⁰ Interview, Kristýna Meislová, Technologické centrum AVČR, department of strategic studies.

⁶¹ Interview, Jiří Blažek, Charles University Prague

OPs, a high rate of staff fluctuation that limits competency and inconsistencies in the audit and control system.⁶²

6. Future prospects

- At a basic level, there is a perceived need among policymakers and academics in Prague for stronger strategic planning and coordination. For a variety of reasons, strategic frameworks have not been influential in the development of the region over the past two decades. However, there is now an emerging consensus that the challenges facing Prague and its hinterland demand the identification of fresh strategic development priorities. A new generation of strategies is currently being developed: a metropolitan plan (which deals with land use issues); a Strategic Plan that cuts across the city boundary and looks at functional linkages; new Cohesion policy operational programmes; and a new Regional Innovation Strategy. The quality of these strategies, the force and funding associated with them and their coordination is seen as crucial to the future development of the region.
- In terms of specific threats, there is a danger that processes of social polarisation and fragmentation which have so far been delayed by the communist legacy will strengthen. Prague could eventually experience negative consequences from the weakness of strategic development frameworks over the past two decades: traffic congestion, the decline of the city centre population, demographic ageing and social deterioration of some housing estates, and unregulated suburban development.
- In the Czech Republic, the main priorities of regional development policies, predominantly Cohesion policy-funded, over the past decade have been transport infrastructure followed by the environmental infrastructure. The third main priority is enterprise environment. The emphasis on infrastructure is understandable given the significant transit across the Czech territory in both West-East and North-South directions and the poor condition of infrastructure inherited from the communist period. Nevertheless, R&D and innovation will be important to future development. Although Czech resources in these fields are concentrated in Prague, the region's performance has been weak: large companies, especially multi-national enterprises, are more innovative than SMEs; intensity of co-operation among business and public research sectors is not strong and the low level of co-operation between academic and private sectors could be seen as a severe barrier for the further strengthening of Prague's competitiveness. Innovation is a prominent priority in the new generation of strategic documents that is being prepared. The new Strategic Plan of the City of Prague that is a long-term conceptual document setting the objectives, priorities and paths for dealing with key questions of development of the city in a 15 to 20 year timeframe includes the objective of strengthening of innovation, and R&D capacity, particularly in the skills of the city labour force.⁶³ Cohesion policy support for these types of intervention are considered crucial given the paucity of alternative funding sources. According to observers, innovation would not happen without ex-ante conditionality on an RIS to kick-start the process. The predominance of SFs support of R&D and innovation in Prague is of such that many claim that the RIS would not be implemented at all if SFs money were not available.⁶⁴

7. CONCLUSIONS

⁶² Jungwiertová, L., Feřtřová, M. and Blažek, J. (2013) 'The decline of explicit regional policy? Regional policy developments in the Czech Republic, 2012-13', EoRPA - Regional Policy Developments Europe: Country Reviews 2012-13

⁶³ Interview, Radim Perlín, Institute of Development of Prague (URM), coordinator of new Strategic Plan.

⁶⁴ Interview, Kristýna Meislová, Technologické centrum AVČR, department of strategic studies.

- Development in Prague relies heavily on the services sector (finance, insurance, telecommunication) and tourism. Additionally, in recent years, high-growth manufacturing industries, have generated a significant increase in value added and employment in the region, particularly in the pharmaceutical industry and the ICT sector. These sectors represent the most innovative branches not only in Prague's economy but the whole Czech economy as well. The crucial sector in Prague economy – services – has been characterised by a gradual penetration of foreign investment and a subsequent increase of business services and financial intermediation. These branches rank as fundamental pillars of economic growth and competitiveness in Prague. In addition to these branches, Prague competitiveness is positively influenced by the high concentration of research capacities and universities of the Czech Republic, although the full potential of this is yet to be exploited.
- Prague's development has been driven by a combination of endogenous and exogenous factors. The advantageous position of Prague within the national settlement structure and within Central and Eastern Europe and proximity to Germany, the favourable economic structure with a high share of services, the traditionally significant concentration of universities and research institutes, good traffic accessibility have all served to attract foreign investment and drive economic development in Prague.
- Much of the Czech Republic's innovative capacity is concentrated in Prague. Although the service sector remains a fundamental pillar of the city's growth, innovation is an increasingly significant factor. Prague's economic growth as well as strengthening of its competitiveness within the EU and the global market increasingly depends on innovation in sectors such as business services, financial intermediation, pharmaceutical industry and ICT. The challenges for Prague in this respect is that much of the impetus for innovation comes from the activities of multi-national firms rather than from endogenous factors or as a result of regional economic or innovation policies. Co-operation among domestic business and public research sectors (for instance with the aim of commercialising research) is weak.
- The issue of social cohesion and disparities has not been prominent in the development debate until recently. To a certain extent, communist period planning limited the development of social disparities. The Czech Republic's redistributive approach to taxation has also supported balanced access to services. Assessments of poverty and inequalities in Prague vary according to the scale of measurement. Prague's 'at-risk-of-poverty rate' is favourable in comparison to the national average. On the other hand, assessments of internal disparities show that Prague has the highest share of population below the threshold of the regional average. Thus far, socio-spatial cohesion in Prague has mainly been addressed through a provision of access to jobs via an affordable public transport system. However, conflicts between different demographic and social groups are emerging in certain areas, variability of income distribution is becoming apparent and more serious social problems (demographic ageing, homelessness etc.) may burden the city in the future.
- Generally speaking, strategic frameworks and policy interventions have not been the main drivers of development in Prague: "economic growth has been driven mainly by these economic and geo-economic factors to a much greater extent than regional economic or innovation policies."⁶⁵ Nevertheless, the ROPID project provides an example of a transport policy that has successfully integrated transport systems across boroughs and municipalities, addressing the challenge of supporting balanced development by facilitating access to employment opportunities in Prague to all inhabitants.

⁶⁵ Čadil, V. and Vanžura, J. (2011) Regional Innovation Monitor 3, Regional Innovation Report (Prague)