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# The Role of Clusters in the Regional Policy of the Czech Republic

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## Abstract

Regional, industry, innovative and knowledge-based clusters have become popular and important policy tools to boost economic development and competitiveness at regional level. The expectations of their role is still growing as it can be seen in the statements of official documents of European Union concerning social and economic cohesion or competitiveness and innovation programmes and also in many national and regional strategic documents of member states. The cluster development dilemma appeared in many CEE countries. On the one hand clusters are business or industry driven, on the other hand the cluster initiatives for starting cluster-based policies are mostly public sector driven. The public sector has in the past often tried to develop clusters directly. Now it appears that its role may prove more effective in providing the infrastructure on which clusters can grow. The Czech Republic adopted the comprehensive approach to cluster-based policies which are incorporated in different national and regional strategies focused not only to regional development but to business and innovation support as well. The analysis of cluster-based interventions in different types of strategic documents is presented in the paper.

**Key words:** Regional policy, cluster, innovation, strategy

## 1 Introduction

In recent years, it is possible to identify a significant shift in the ‘paradigm’ of regional development [1]. The traditional approach to regional development was undertaken by central governments using the different subsidies to firms, infrastructure and the location of public sector activities. In part, this has been superseded by a ‘contemporary’ approach, characterised by decentralised intervention based on integrated regional development plans and strategies, designed and delivered by partnerships of regional and local actors. There are four characteristics of these contemporary approaches to regional development. First they have a broad sphere of action, covering a range of policy sectors: infrastructure, business development, RTD, human resources, tourism, environment etc. Second, the national policy versions tend to encompass economic development in all regions, not just those designated for regional policy purposes which exhibit the biggest regional disparities. Third, they tend to take a pro-active approach to development, with a multiannual programme of measures targeted at the business environment and soft infrastructure. Lastly, they have a distinctive approach to policy implementation which is collective negotiated, led by regional authorities

and involving a wide range of partners from local government, the voluntary sector, business and social communities.

In this context, new theories of regional development came to the fore, especially those concerned with industrial milieu (Storper, Camagni) and the role of clusters, systems of innovation and networks (Porter, Cooke and others). It was recognised that competitive advantage increasingly implied the ability and capacity of regions to facilitate the generation, acquisition, control and application of knowledge and information, in the interests of innovation and marketing. Many scientists and policy makers highlight regions as key sites of innovation and competitiveness in the globalising economy. Thus, regional innovation systems (RIS) are seen as an increasingly important policy framework for implementing long-term, innovation based regional development strategies, including clusters.

The original definition of Porter's [2] defines clusters as "geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition. They include, for example, suppliers of specialised inputs such as components, machinery, and services, and providers of specialized infrastructure. Clusters also often extend downstream to channels and customers and laterally to manufacturers of complementary products and to companies in industries related by skills, technologies, or common inputs. Finally, many clusters include governmental and other institutions – such as universities, standards-setting agencies, think tanks, vocational training providers, and trade associations – that provide specialised training, education, information, research, and technical support".

Regional policy in Western Europe has been in existence for over fifty years. It has developed either as national regional policy in different states or as the coordinated policy of European Union under the title EU structural and cohesion policy. The European Union developed a regional policy of its own, with progressively more resources devoted to economic and social cohesion. The EU structural and cohesion policy received new impetus in the Community strategic guidelines for cohesion policy (2007-2013) [3]. The Guidelines contain the principles and priorities of cohesion policy and suggest ways the European regions can take full advantage of the € 308 billion that has been made available for national and regional aid programmes over the next seven years. Among the recommended approaches are the issues of regional policy's role in supporting the process of developing or adapting regional innovation strategies and experimenting with innovative approaches and actions including regional innovation clusters.

Clusters are now seen as a critical factor in fostering innovation, through the connections they make between the industrial and research worlds and the support services they can provide, particularly to small firms which would otherwise not have the resources to access them. Equally, policy-makers are very much aware that there is no magic solution they can use to build strong clusters in their region, and so public intervention has to be very precisely targeted and measured. The range of approaches to cluster support by public authorities – be they local, regional or national – is nearly as large as the number of successful clusters in Europe, and so the key for policy-makers is to learn from the experience of others [4]. The approach to cluster development on a national level as an instrument of regional policy is described in the paper.

## **2 Regional Policy in the Czech Republic**

The real regional policy as focused governmental or regional activity appeared in the Czech Republic only after the 1989 in the period of market economy.

## 2.1 Regional Structure of the Czech Republic

Since 2000, the Czech Republic is divided into thirteen regions (*kraje*, singular *kraj*) and the Capital City of Prague. Each region has its own elected Regional Assembly and governor (translated as hetman or "president"). In Prague, their powers are executed by the city council and the mayor of Prague. According to EU NUTS Classification the regions and Prague correspond the NUTS 3 level and they are 14 in total. However for planning the EU cohesion policy and the use of EU structural funds the so called cohesions regions at NUTS 2 level were introduced as an administrative merger of regions (see Table 1).

**Table 1: Regional structure of the Czech Republic**

Territory	Cohesion regions	Regions
NUTS 1	NUTS 2	NUTS 3
Czech Republic	Praha (Prague)	Prague
	Střední Čechy (Central Bohemia)	Central Bohemian Region
	Jihozápad (Southwest)	South Bohemian Region
		Plzeň Region
	Sevrezápad (Northwest)	Karlovy Vary Region
		Ústí nad Labem Region
	Severovýchod (Northeast)	Liberec Region
		Hradec Králové Region
		Pardubice Region
Jihovýchod (Southeast)	Vysočina Region	
	South Moravian Region	
Střední Morava (Central Moravia)	Olomouc Region	
	Zlín Region	
Moravskoslezsko (Moravia-Silesia)	Moravian-Silesian Region	
Total	7	14

Source: Czech Statistical Office

The development in the last fifteen years has caused the huge regional disparities mostly between the capital city of Prague and the rest of the country, as can be seen on example of several indicators at Table 2.

One can see a strong dichotomy between Prague and the rest of the territory of the Czech Republic. The clear dominance in economic maturity of the regional structure is represented by the Prague region, which is considerably above the EU25 average (GDP/per capita) with the value 145,9% (2005). Further seven Czech regions NUTS 2 fluctuate between 56,3-65,8% of the EU 25 average. In this regard there is an economic balance in the regional structure on the remaining part of Czech state.

**Table 2: Main regional disparities between cohesion regions**

Cohesion region	Population (1.1.2006)	GDP per capita in PPS EU-25=100	No. of private entrepreneurs per 1000 inhabitants	Unemployment rate
Prague	1 181 610	145,9	246	3,5
Central Bohemia	1 158 108	65,8	192	5,2
Southwest	1 179 294	65,5	186	5,1
Northwest	1 127 447	57,0	173	13,5
Northeast	1 483 423	59,9	188	5,6
Southeast	1 641 125	63,4	172	7,7
Central Moravia	1 229 303	56,3	177	9,7

Moravia-Silesia	1 250 769	57,5	154	13,9
Czech Republic	10 251 079	70,5	185	7,9

Source: Czech Statistical Office for 2005, NSRF 2007-13

## 2.2 Development of Regional Policy

Regional policy in the Czech Republic until the year 1990 can be associated only with massive redistribution and reallocation of resources. No systematic regional policy was articulated and numerous problems in the sphere of regional development could be found in this period, such as an emergence of new peripheral zones.

In 1996, newly formed Ministry for Regional Development was awarded a co-ordinating role in securing regional policy of the state. And it was only in April 1998 when the general rules governing the implementation of regional policy were set in the new Principles of regional policy. However the real principles of regional policy in the Czech Republic were established by Act 248/2000 Coll. on Support for Regional Development and since then we can speak about the real development and implementation regional policy measures.

The basic levels of the regional development and the implementation of the regional policy of the Czech Republic are as follows: the cohesion regions (NUTS 2) – statistical areas, self-governing regions (kraje) (NUTS 3) – higher-level local administration units, district – regional units for the specification of regions with concentrated state aid, administrative districts of municipalities with extended powers – administrative areas, municipalities – municipal and city authorities.

The regional policy of the Czech Republic was designed to respect the basic principles of the structural policy of the EU and the overall aim of economic and social cohesion. In this respect, allocation mechanism as a part of the institutional framework, had to be set up to enable the future use of structural funds.

Since 2000 we can find in regional development two streams of regional policy. The first, national one, includes the overall approach to regional planning upon both national and regional levels using national sources for regional development, the second corresponding the preparation of structures and programming documents for future utilisation of EU structural funds. Due to principles of EU cohesion policy the programming approach in regional policy was adopted. However while in the period 2000-2006 this two streams were quite distinct in the so called programming documents and funding the regional policy measures, in the new programming documents 2007-2013 for structural funds they merge more and more, mostly due to lack of funding for national policy measures.

**Table 3: Czech Regional Programming Documents**

National programming documents	EU programming documents 2004-2006	EU programming documents 2007-2013
Regional Development Strategy of the Czech Republic (2000-2006)	National Development Plan 2004-2006	National Development Plan 2007-2013
Regional Development Strategy of the Czech Republic (2007-2013)	Community Support Framework	National Strategic Reference Framework
Regional Development Strategies (NUTS 3)	4 Sector Operational Programmes	8 Thematic Operational Programme
Regional Development Programmes (NUTS 3)	1 Joint Regional Operational Programme (NUTS 2)	7 Regional Operational Programmes (NUTS 2)

		2 OPs Prague
Regional Innovation Strategies (NUTS 3)	2 Single Programming Documents	7 Operational Programmes for Territorial Cooperation

Source: own according to Ministry for Regional Development

The structure of key strategy planning documents for regional development is shown in Table 3. The basic national document of the regional policy of the Czech Republic is the Regional Development Strategy [5], which includes, in particular, an analysis of the status of the regional development, a characteristic of the strengths and weaknesses of the development of individual regions (kraj) and districts, strategic objectives of the regional development in the Czech Republic, a definition of regions with concentrated state support, the recommendations to the relevant central administrative authorities and regions for the focus of the development of sectors falling within their competencies.

The long-term regional development goal in the Czech Republic is focused to a balanced, harmonious and sustainable development of regions, which will lead to an increase of the quality of life of the population. This global goal is composed of three strategic objectives:

(1) the development-oriented objective represented by an increase of economic and environmental potential, competitiveness and social level of regions in the Czech Republic to a level comparable with developed regions of Europe, (2) the disparity-oriented objective focused on stopping the growth and gradual diminishing of excessive regional disparities and utilization of territorial specifics, (3) the instrumental objective focused on institutional and financial safeguards of the strategy.

The National Strategic Reference Framework for 2007-2013 [6] set the global development objective as “to transform Czech Republic's socio-economic environment in compliance with the principles of sustainable development, so as to make the Czech Republic an attractive location for investment as well as for the work and life of its citizens. By means of incessant strengthening of the country's competitiveness, a sustainable development will be reached which will proceed at a pace higher than the EU 25 average. The Czech Republic will strive to boost employment and to pursue a balanced and harmonized regional development, which will result in enhancing the quality of life of the country's population.”

The Czech Republic's factors of competitiveness include competitive Czech economy, open, flexible and cohesive society, attractive environment and balanced development of territory. Within the first priority for competitiveness the support will keep aiming at establishment and development of regionally concentrated sector groups of business entities and support institutions – innovative clusters.

In self-governing regions the regional developments strategies or programmes were developed accompanied by Regional Innovation Strategies in most regions. All of them except one comprise the special measures to regional clusters development, as is shown in following table.

**Table 4: Support of Clusters in Czech Regional Planning Documents after 2006**

Region (kraj)	Regional Development Programme/Strategy	Regional Innovation Strategy	Cluster Development
Jihočeský	Programme	RIS	YES
Jihomoravský	Strategy	RIS	YES
Karlovarský	Programme	RIS	YES

Královéhradecký	Strategy	-	YES
Liberecký	Strategy	-	YES
Moravskoslezský	Programme	RIS	YES
Olomoucký	Programme	-	YES
Pardubický	Programme	RIS	YES
Plzeňský	Programme	RIS	YES
Praha	Strategy	RIS	YES
Středočeský	Programme	-	YES
Ústecký	Strategy	RIS	NO
Vysočina	Programme	-	YES
Zlínský	Programme	RIS	YES

Source: own elaboration

The development of innovation clusters and their support are in focus of all regional authorities, even though they are still at their initiation stage in some regions. However the ultimate objective is to organise truly innovative clusters, capable of boosting the potential of the SMEs to launch their own research projects as well as to be able to commission research and development work tailored to their needs, to access affordable training for their professional and executive staff and to engage in long-term cooperation with the research establishments and universities and to reach world competitiveness.

### 2.3 Programming for Clusters

The first ideas on clusters in the Czech industrial policy appeared in 2000-2001 during the preparation the National Development Plan and Operational Programme Industry and Enterprise (OPIE) for EU Structural Funds 2004-2006 at the Ministry for Industry and Trade. At the same time the CzechInvest, a former governmental agency for foreign direct investment launched the pilot project “Identification of industry grouping for state aid support in North Moravia Silesia” in 2002. Based upon the results of the project prepared by the group of foreign and local experts the Cluster Development Programme – CLUSTERS was included into the prepared Operational programme (OPIE) and CzechInvest was entrusted to develop and manage the support for the cluster initiatives in the Czech Republic. Later followed the training of cluster facilitators, concept promotion in the regions, national Cluster conferences (2004, 2005) and preliminary analysis of cluster potential in the Czech Republic. The National Cluster Strategy was adopted by the Czech government in July 2005 and The National Cluster Study (Cluster mapping project) started in autumn 2005 as the basis for future cluster development in new Structural funds period 2007-2013. All of this has been accompanied by cooperation of universities, businesses and public regional and national authorities (triple helix),

The support of CLUSTER programme 2004-2006 was involved in Operational Programme Industry and Enterprise with the budget of € 9 million. The objective was to support development of founded cluster for three years after its establishment in order to achieve its independent and sustainable development in the following period. The effect of the cluster will be monitored for the next three years by comparing cluster performance to the set of the pre-defined criteria. On quarterly basis, the cluster management shall prepare an activity report during this period presenting changes when compared to the criteria matrix serving as the main evaluation factor during inspections carried out by the agency and the support provider.

The objective of the programme CLUSTER was to be attained through the necessary support to groups of companies and associated institutions in these two types of projects [7]: (1) Search for companies suitable for association in clusters, assessment of viability and benefits

of clusters. (2) Establishment and development of clusters and fulfilment of their mission. The results supported activities by CLUSTERS programme in 2005-2007 can be seen in Table 5.

**Table 5: Granted Clusters by CLUSTER Programme in 2005-2007**

Region of cluster implementation	Number of granted cluster initiatives	Number of grants for cluster development	Total grant in “000“ CZK
Jihočeský	6	1	13500
Jihomoravský	12	5	74007
Karlovarský	4	0	2696
Královéhradecký	9	2	97255
Liberecký	1	0	431
Moravskoslezský	11	4	62320
Olomoucký	1	0	882
Pardubický	1	0	793
Plzeňský	1	0	690
Středočeský	1	0	664
Vysočina	1	0	810
Zlínský	4	1	20263
Celkem	52	13	274311

Source: own based on CzechInvest Statistics of 24 Sept 2007

The support of search for suitable companies for cluster was provided in the course of 8 months after the registration of the application for subsidy. Support of the establishment and subsequently the development of a cluster shall has been provided in the course of three years after the registration of the application for support in order to achieve its independent and sustainable development in the period. The support has been provided in the form of a subsidy for eligible cost not exceeding 75% of total eligible cost of the project. Granting of support is conditioned by participation of at least 60% of cluster members from small- and medium-sized enterprises sector and tertiary education institutions and research institutions with their seat in the Czech Republic. As can be seen from the Table 5, two Moravian regions (Jihomoravský and Moravskoslezský) took the lead in cluster initiatives.

### 3 Conclusion

Economic growth is increasingly related to the capacity of regional economies to change and to innovate. Early interventions to regional development were mainly based on the provision of capital and support for physical infrastructure. Regional innovation may systematically arise when a number of factors are in geographical “proximity”, although this is beginning to change thanks to advances in information and communication technologies. Nevertheless, geographical proximity remains one of the most powerful factors in favour of intellectual, commercial and financial exchanges, heavily influencing the innovation process. In this sense regions are important because they form the spatial basis of groupings of research and innovation operators, which have come to be known as “clusters”, often considered as the main drivers of regional development.

The cluster approach to regional development can have many faces in different countries. The Czech regional policy in the last five years focused to the development of national-wide cluster movement governed by EU funded programme CLUSTER. During only three years 52 cluster mapping initiatives were supported and a few tens of cluster were established. The notion of cluster has become the generally known concept of business organisation among

entrepreneurs and managers. The next years will prove either the trendiness or sustainability of regional industry clusters in the Czech regional policy.

### Acknowledgements

This paper was prepared with the assistance of Czech Science Foundation, project No. 402/06/1526.

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