

INNOVATION POLICY AT THE REGIONAL LEVEL AND THE STRUCTURE OF ITS NETWORK: CASE OF SELECTED SLOVAK REGIONS¹

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Introduction

The economic and political changes in Central and Eastern Europe in the late eighties of the 20th century have fairly changed the political and economic map of Europe. The creation of a regional innovation strategy is aimed to exchange experience among actors in regional structures and to stimulate regional policy making as regards research and innovation strategies by means of promoting cooperation, breaking down barriers, encouraging common regional learning and exploiting the existing capacities in a more efficient, integrated way. This is particularly true on the parallel background of regionalisation of innovation systems in the most European countries. Furthermore, former ideas of a success of innovation policies in developed countries and/or regions can be applied in lagging regions as well, taking into account special conditions and to fashion the regional strategy according to character of the region of consideration.

The problems of regional and local development of post-communist countries are influenced extensively by the transition from central planning to a market system. From the centrally planned, top-down system of resource allocation, the responsibility for regional and local development and physical planning was devoted to newly established regional and municipal governments. The negative residuum of central planning contributes to still underdeveloped strategic planning skills, structures and knowledge.

Since the transition to 'western' structures, the countries of Central and Eastern Europe, including Slovakia, have suffered from severe serious economic and employment-related problems. Market forces have tended to overwhelm the emerging strategic planning processes and the results are apparent in vivid spatial disparities. The western part of Slovakia performs much better economically than the central and eastern regions of Slovakia. There are many typical reasons for regional disparities in economic development – the essential factors for Slovakia are the proximity to western borders, urbanisation, diversification, quality of infrastructure, the level of human and social capital, entrepreneurial tradition, and their historic-cultural background (BUČEK, 1999, HUDEC and URBANČÍKOVÁ, 2007).

Regions with higher innovation and proximity to poles of growth have had both better ability and opportunity to adapt to the new circumstances of the European market. The major attribute of the economic structure and development of the Slovak regional policy lies in its centre–periphery relationship. Bratislava has strengthened its central position in the country after the split-up of Czechoslovakia. There is only one serious economic “competitor” to Bratislava - the city of Kosice in the Eastern part; although its peripheral location, unskilled labor market, relative transportation inaccessibility, close proximity of its

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boundary with the Hungarian, Ukrainian and Polish poorest regions makes the future of the second largest city and its adjacent region more unfavourable.

Obviously, there are many factors which might potentially influence social and economic development of the regions in Slovakia as well as their innovation policies performances. One of the least discussed is, however, a capability of relevant actors to cooperate and willingness of those actors to be involved in the regional innovation policies making.

We have selected four regions for our research purposes. Two of them – Bratislava region and Trnava region – are situated in the western or more precisely south-western part of the country and belong to the most developed regions as measured by standard economic indicators. On the contrary, other two regions – Košice region and Prešov region – are situated in the eastern part of the country and belong to the least developed regions in terms of the same indicators.

Our main goal is to compare a situation in the selected regions and to respond three basic questions:

A: What are the regional innovation systems in the selected regions in terms of the networks of innovation policy actors?

B: What are the problems and obstacles linked to cooperation of innovation policy actors within regional innovation systems of the selected regions?

C: How intensively are non-governmental actors involved into the innovation policy making in the selected regions?

The data presented have been obtained through two ways. The first one – content analysis – has been centered on analysis of the legal and strategic documents in order to obtain quantitative data linked to regional innovation systems and their actors. The second one – interviewing – has been predominantly aimed at discovering of both cooperation of innovation policy actors within regional innovation systems and involvement of private actors into innovation policy making. For analytical purposes two basic concepts are utilized: public policy making and participatory governance.

Regional innovation policy making and participatory governance

Globalisation brings diminishing importance of national borders and in such a new situation, regions happen to be more accountable for their own development. Regionalisation in the end of the first decade of the 21st century has a new shape resulting from the European Lisbon strategy. Economic concepts of regional competitiveness based on innovations and knowledge-based economy on one side and economic and social territorial cohesion, strong regional policy orientation on the other side, resulted in the concepts of learning regions, regional innovation systems and regional competitiveness.

An increasing interest has emerged in literature, which focuses on the importance of knowledge, learning and innovation to the economic success of firms, regions and nation-states (Lundvall 1988; Forrant 2001). New theories emphasise the role of human and social capital in regional growth and development as missing elements of its explanation. Regional strategic planning and decision making suppose high quality of human capital and the involvement of citizens as a form of social capital to be mobilised to facilitate actions.

Negotiating and building alliances and partnerships, among different local and government institutions located in the region, universities, private sector interests and non-profit organisations is a critical task, although uneasy to coordinate or manage (Urbančíková, 2007). The difficulties are engrained in the recent non-participative history.

Regionalisation is has emerged partially from the New Institutional Economics, developing out an approach emphasizing efforts to upgrade the regional and local supply side infrastructure of entrepreneurship. New institutionalism highlights two essential concerns: economic behaviour is embedded in networks of interpersonal relations and therefore crucially influenced by aspects such as trust and cooperation, economy is shaped by enduring collective forces - these may be formal institutions as well as informal or tacit institutions such as habits, routines and norms (HUDEC, KOLVEKOVÁ, 2007).

Innovation takes a central role in the process of economic development, when defining it as a product, process and organisational innovation in the firm as well as social and institutional innovation at the level of industry, region or nation. Since economic development can be understood as a process of innovation activities, innovation emerges as the engine of growth and the role of institutions is an essential variable, “the national innovation system became an important part of national industrial policies” (LUNDVALL, 1992). As the conditions of regions in the regionalisation process are gradually changing over the time, what brings – in accordance with learning regions concept - new challenges such as change of the regional governance system toward more networking structure, embedding together cooperation and competition, away from hierarchical structures. Regionalisation accompanied by decentralization of power and resources leads to a situation when regional (innovation) policies started to play more important role.

National innovation systems in their nature are not primarily built to take into consideration regional aspects. There is a question whether regional innovation systems should be seen and assessed as policy tools for achieving regional growth generally, including less developed regions and to be adopted e.g. into European regional policy. Along with the theoretical studies, European Commission built up broad institutional and information support on innovation and launched regional innovation strategy projects in several waves, enabling to get empirical results. Regional innovation strategies, operational programmes and measures in favour of research, technological development and innovation (RTDI) or more generally ‘competitiveness’ have been designed and funded with the support of the Structural Funds (SFs) since the early 1990s.

Concerning regional innovation system, the concept, or more precisely the model, is often implemented model for introducing various innovations in the European practice (table 1). Furthermore, if one looks at Slovakia and its official regional policy, it is the most important model.

Table 1: Models of innovation introduction

Features of innovation	Models			
	Milieu innovateur	Industrial district	Regional innovation system	New industrial spaces
Core of innovation dynamics	capacity of a firm to innovate through the relationships with other agents of the same milieu	capacity of actors to implement innovation in a system of common values	innovation as an interactive, cumulative, and specific process of research and development (path dependency)	a result of research and development and its implementation; application of new production (just-in-time, etc.)

Role of institutions	very important role of institutions in the research process (universities, firms, public agencies, etc.)	institutions are 'agents' and enable social regulation, fostering innovation and development	as in the national system of innovation, the definitions vary according to the authors but all authors agree that the institutions lead to a regulation of behavior, both inside and outside organizations	Social regulation for the coordination of inter-firm transactions and the dynamics of entrepreneurial activity
Regional development	territorial view based on milieu innovateurs and an agent's capacity of innovating in a cooperative atmosphere	territorial view based on spatial solidarity and the flexibility of districts – this flexibility is an element of this innovation	view of the region as a system of 'learning by interacting/and by steering regulation'	Interaction between social regulation and agglomerated production systems
Culture	culture of trust and reciprocity links	sharing values among industrial districts agents – trust and reciprocity	the source of 'learning by interacting'	culture of networking and social interactions
Types of relations among agents	the role of the support space: strategic relations between the firm, its partners, suppliers and clients	the network is a social regulation mode and a source of discipline – it enables a coexistence of both cooperation and competition	the network is an organizational mode of 'interactive learning'	inter-firm transactions
Types of relations with the environment	capacity of agents in modifying their behavior according to the changes in their environment – very 'rich' relations: third dimension of support space	the relationships with the environment impose some constraints and new ideas – must be able to react to changes in the environment: 'rich' relations, limited spatial view of the environment	balance between inside specific relations and environment constraints - 'rich' relations	the dynamics of community formation and social reproduction

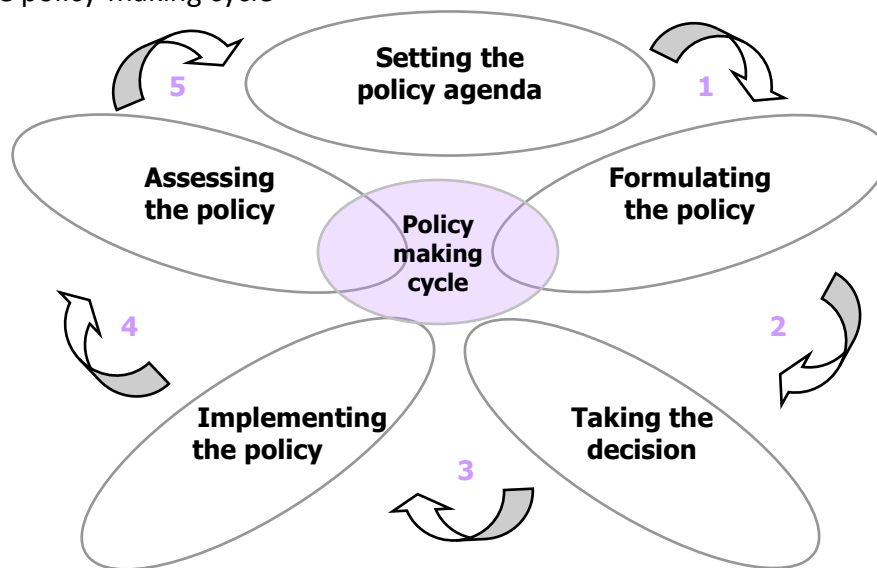
Source: MOULAERT and MEHMOOD 2010: 106.

Regional innovation system requires, inter alia, participation and related horizontal cooperation. The regional policy actors enrich themselves through a mutual cooperation. This point leads us to the question of policy making quality.

Within this paper, participation/involvement in the regional innovation policy making is to be presented as a process by which public interests, needs and values are incorporated into the mentioned policy making process (figure 1):

1. problem initiation, usually understood as the stage when the problem is being identified and integrated into the policy agenda (this step is also seen as the moment of setting the agenda)
2. policy formulation, connected to the activities meant to develop and design solutions to the already identified problem
3. policy selection is described as the stage when the best alternative is chosen and a decision is being made
4. policy implementation, linked to the previous stage since it refers to putting into practice the decision already taken
5. policy assessment: consisting in the evaluation or appraisal of the implemented decision, and determines the last one which can have either a form of rediscovery of some problems (i.e. again problem initiation) or a form of policy conclusion.

Figure 1: The policy-making cycle



Government failure is frequently linked to the fact that it serves the interests of politicians and government officials (MITLIN and SATTERTHWAIT, 2004: 280). Therefore the essence of good governance is the interactive relationship between and within governmental and non-governmental forces (STOKER, 1998: 38).

In recent years, there has been considerable innovation in governance with the rise of an array of institutions that seek to engage citizens or other non-governmental actors in playing a more active part in decisions which affect their lives (CORNWALL and GAVENTA, 2006: 405). The reason for such situation is quite simply. The state has expanded its activities in too many fields. The fact that both, resources and government efficiency are lacking, should lead us to reflect upon how the exercise of these tasks could be improved. A new division of functions between government and society is necessary that will give citizens or other non-governmental actors more responsibilities. There is a need for more opportunities where initiatives of those actors can develop (SCHULTZ, 2001: 17).

The participatory governance as a special form of good governance has become a part of the mainstream in almost all democratic countries. As public sector resources and capacities are inadequate to the scale of public problems, solutions also require mobilization

of effort, from the business and associational sectors (LOVAN, MURRAY and SHAFFER, 2005: 250). However, participatory (or engaged) governance is not a new policy, but rather a new politics – a new setoff relationships and interactions between agencies and communities. This new politics, together with the capacity building process within agencies is dynamic and can be self-reinforcing. It requires rethinking assumptions, structures and culture about how the work of government is constructed. The central focus is the view of government not as a provider, but as an enabler of vibrant communities. In that regard, community engagement has the potential not to challenge government, but to enhance it (CAVAYE, 2005: 100).

Political scientists highly discussed the concept of participatory democracy in the 1960s and 1970s (Macpherson, 1977, Milbrath, 1966, Pateman, 1970). It is a relatively modern notion of democracy, but it is based on classic democratic principles (Held 2002). Currently, participatory democracy is still under discussion (Edelenbos and Klijn, 2005, Held, 2002, Saward, 2003). Saward (2003) describes participatory democracy as 'any form of democracy which emphasizes or enables extensive participation in decision making by members of the whole group concerned.' Held (2002) based his 'model of participatory democracy' on Macpherson (1977) and Pateman (1970) and argues that participatory democracy is linked with the more classical model of direct democracy and that it is pluralistic.

Participatory governance (PG) can be by means of seven interlocking criteria which serve to inform how the engagement process can translate into more effective public decision-making:

- PG is integrative because public policy making concerns itself with making connection vertically and horizontally between multiple stakeholders.
- PG is strategically driven because although public policy making, in order to be effective, rises above an association with a series of ad hoc initiatives, strategic planning is inextricably linked to stakeholder empowerment where the benefits go well beyond the planning phase into implementation.
- PG comprises joint working because public policy making requires the involvement of multiple stakeholders working together rather than on an individual basis.
- PG is multi-dimensional in scope because public policy making embraces a wide range of often inter-related concerns.
- PG is reflective because good public policy making is always willing to learn from experience regarding what works well under different circumstances and what could work better.
- PG is asset based because while funding is crucial for the processes and interventions of public policy making in civil society, the shared assets of stakeholders in terms of knowledge, experience, skills and networks are profoundly more significant for sustainable success, and this suggests that participatory governance is more directly concerned with what can be achieved given resource and implementation mechanism realities.
- PG champions authentic dialogue because on the one hand authentic dialogue allows citizens and other non-governmental actors holding diverse perspectives to engage with each other in inquiry, sharing and learning, and on the other hand it can allow service organizations and the people with whom they interact to begin to discover principles for a more productive engagement out of which can flow new practices of understanding and respect (Lovan, Murray and Shaffer 2005: 245-249).

Selected Slovak regions and their economic performance

After the parliamentary election in 1998, the government was deciding on the establishment of regional self-government units and their bodies. Members of the government negotiated the regional division of 8 units and 12 units in June 2000. Almost all its members voted for the 12 units variant.

The government agreed, during its special session on 1 April 2001, on two law drafts in regard to the establishment of regional self-government units and their bodies. The government approved a decision to create 12 parallel regional units and bodies – 12 regional state administrative authorities and 12 regional self-government units, i.e. the 12 + 12 model. However, these drafts were not (on 4 July 2001) supported during the parliamentary discussion on them by all political subjects of the ruling coalition (the left-wing parties did not vote on their approval in the proposed versions), and therefore their approved versions varied from the proposed ones (the 8 + 8 model was approved). Finally the parliament approved three important acts that were influenced by the above events: the Act on Self-Government of the Superior Territorial Units (the Self-Government Regions); the Act on Bodies of Self-Government Regions Election; the Act on Some Competences Devolution from State Administration Bodies on the Communities and Superior Territorial Units (KLIMOVSKÝ, 2008).

Immediately after the decision of NRSR, the Government Commissioner for Public Administration Reform took his discharge from the function of government commissioner, and the Deputy Prime Minister for Economics refused to guarantee the form of public administration reform. The representatives of the Association of Towns and Communities of Slovakia (ZMOS), various NGOs, and communities protested against the approved territorial division and likened it to the violation of democratic principles or political failure. However, nothing happened and the question of the continuation of public administration reform was overshadowed by the forthcoming election (KLIMOVSKÝ, 2008).

In spite of the abovementioned facts, regional self-governments (all 8 units represents NUTS 3 level in Slovakia) have become important actors in the networks linked to the regional policies – including regional innovation policy – since 2002. They are responsible not only for preparation and approval of related strategic or legal documents but also for their implementation. It means that, under the rule of law, the authorities must cooperate with all relevant actors.

We have selected four regions for the research purposes – namely: Bratislava region, Trnava region, Prešov region and Košice region (figure 1 and table 1).

Bratislava region is located eccentrically in the western and south-western part of Slovakia and is sharing the border with Austria and Hungary. It has a favourable central position within the central European region. Medium-sized municipalities with 1,000–1,999 inhabitants predominate in this region. Almost three quarters of total regional population live in Bratislava and in town Pezinok which is situated very closely to Bratislava. There are many universities situated in the region, which has influenced a higher educational level of the population. For instance, according data involved in Population and Housing Census 2001, 17 % of inhabitants in the region have completed university courses (9.1 points more than the national level) (SOSR 2004: 22–23).

Trnava region lies in western and south-western part of Slovakia, where is sharing the border with the Czech Republic in the north and Hungary and Austria in the south. Small and medium-sized municipalities with 500–999 and 1,000–1,999 inhabitants prevail with concentration about one third of total regional population. Education level of population by

Population and Housing Census 2001 has increased compared to 1991. Persons with secondary vocational education without school leaving exam have the highest representation (25.4 %) and 6 % of population have completed university education (SOSR 2004: 26–27).

Prešov region is the second largest region of Slovakia. It covers the whole north-eastern part of Slovakia. Long north border is also the state border with Poland and the east one with the Ukraine. There are 666 municipalities situated in the region and the smallest municipalities prevail; 56 % of all belong into the group of municipalities with less than 500 inhabitants. The share of persons with secondary education without school leaving exam is the highest. The share of 6.1 % of regional population reached university education (according Population and Housing Census 2001) (SOSR 2004: 46–47).

Košice region is fourth with an area and second with its number of population in Slovakia. The long south border is also the state border with Hungary and the east one with the Ukraine. In settlement structure, the size categories with 200–499 and 500–999 inhabitants are the most numerous. Population with full secondary specialized education is the largest. University education was reached in 7.5 % of population (according Population and Housing Census 2001) (SOSR 2004: 50–51).

Figure 1: The official borders of superior territorial units (self-government regions) in Slovakia



Source: Kiš and Volko, 2007: 58.

Each self-government region is represented by its chair (a head of executive power) and regional council (the highest regional collective decision making body). The councils are responsible also for approval of all strategic documents – one has to mention inter alia economic and social development programmes, regional innovation strategies, various related action plans, etc. These documents are usually elaborated by regular or ad hoc departments/committees/divisions of those councils, and they should cooperate within its preparation and elaboration with other stakeholders.

Table 1: Basic characteristics of the Slovak regions

NUTS 3 level (region)	Area (km ²)	Inhabitants (residents)	Residential density	Number of municipalities		Level of urbanisation (%)
				Overall	Of which towns	
Bratislava	2,053	616,578	300.4	73	7	82,30
Trnava	4,147	559,934	135.0	251	16	48.57
Trenčín	4,502	599,859	133.2	276	18	56.80
Nitra	6,344	706,375	111.3	354	15	46.80
Žilina	6,809	696,347	102.3	315	18	50.30
Banská Bystrica	9,454	653,697	69.1	516	24	53.47
Prešov	8,974	803,955	89.6	666	23	49.25
Košice	6,755	775,509	114.8	440	17	55.72
Slovakia total	49,037	5,412,254	110.4	2,891	138	55.03

Source: SOSR (2008a).

Although these regional units were established within a frame of one reform processes, their characteristics vary a lot. The economic difference may be illustrated on two most cited socio-economic indicators – i.e. regional GDP per capita (table 2, table 3) and regional unemployment rate (table 4, figure 2).

Table 2: Regional GDP and regional GDP per capita in 2007 in the Slovak regions (NUTS 2 level and NUTS 3 level)

NUTS 3 level (region)	NUTS 2 level (GDP in mil EUR)	Regional GDP (2007)	
		mil EUR	%
Bratislava	Bratislava Region (16,444.249 mil EUR)	16 444.249	26.72
Trnava	Western Slovakia (20,761.297 mil EUR)	7 678.522	12.48
Trenčín		6 333.203	10.29
Nitra		6 749.572	10.97
Žilina	Central Slovakia (12,135.745 mil EUR)	6 642.644	10.79
Banská Bystrica		5 493.101	8.93
Prešov	Eastern Slovakia (12,205.778 mil EUR)	4 987.000	8.10
Košice		7 218.778	11.72
Slovakia total		61 547.069	100.00

Source: EUROSTAT.

GDP per capita (average of years 1999–2001) for instance shows that while Bratislava region reached 222.1 % and Trnava region reached 104.0 % of the Slovak average, Košice region reached 90.6 % of the Slovak average and Prešov region even less (only 60.5 % of the Slovak region). At the same time it meant that Bratislava region reached 97.4 %, Trnava region 45.6 %, Košice region 39.8 and Prešov region 26.5 % of the EU 15 average.

GDP growth index 2001/2007 shows us that while Bratislava region and Trnava region developed faster in comparison with Slovak average, Prešov region and Košice region developed more slowly (table 3).

Table 3: Regional GDP since 1997

NUTS 3 level (region)	GDP per capita				
	1997	2001	Index 2001/1997	2007	Index 2001/2007
Bratislava	7,524	9,839	1.31	27,015	2.75
Trnava	3,733	4,331	1.16	13,810	3.19
Trenčín	3,199	3,986	1.25	10,560	2.65
Nitra	2,943	3,628	1.23	9,548	2.63
Žilina	2,846	3,511	1.23	9,552	2.72
Banská Bystrica	2,891	3,624	1.25	8,385	2.31
Prešov	2,203	2,601	1.18	6,225	2.39
Košice	3,087	3,991	1.29	9,333	2.34
Slovakia total	3,474	4,316	1.24	11,405	2.64

Source: SOSR 2004.

Regional unemployment rate confirms the outlined regional differences. While in Bratislava regional the unemployment rate reached less than 4.5 % and in Trnava region the same rate reached level of 8.62 %, the unemployment rate in Košice region reached almost 17 % and in Prešov region it was even more than 18 % in March 2010.

Table 4: Regional unemployment rate and a structure of applicants for a job in the Slovak regions (NUTS 2 level and NUTS 3 level)

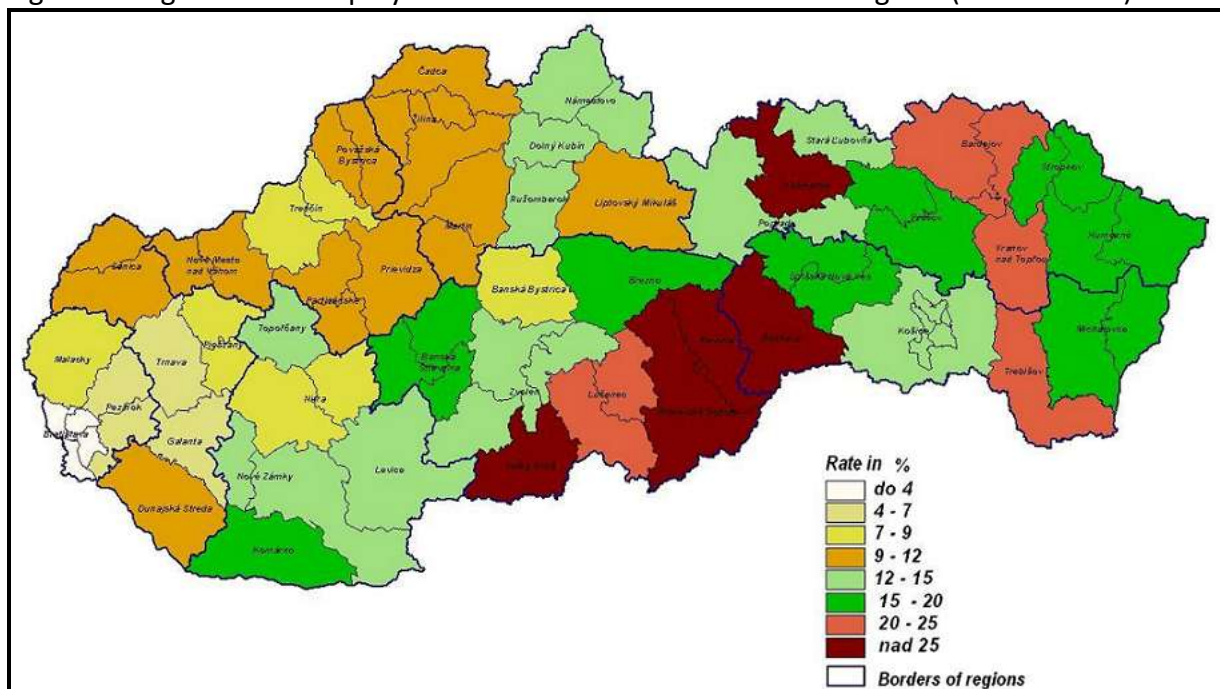
NUTS 3 level (region)	NUTS 2 level (number of applicants for a job)	Unemployment rate in % (March 2010)	Numbers of applicants for a job (May 2010)		
			Total	Men	Women
Bratislava	Bratislava Region (16,462 persons)	4.42	16,462	8,944	7,518
Trnava	Western Slovakia (112,367 persons)	8.62	29,493	15,354	14,138
Trenčín		10.25	34,668	19,342	15,326
Nitra		12.44	48,206	24,935	23,271
Žilina	Central Slovakia (111,601 persons)	11.36	42,319	23,184	19,135
Banská Bystrica		19.57	69,282	36,928	32,354
Prešov	Eastern Slovakia (153,307 persons)	18.24	81,567	45,508	36,059
Košice		16.85	71,740	39,640	32,100
Slovakia total		12.88	393,737	213,836	179,901

Source: UPSVaR SR, 2010.

The figure 1 and figure 2 show the unemployment rates in the Slovak regions (at the NUTS 4 level) in March 2010. The highest unemployment rates were found in those districts situated in the eastern Slovakia (i.e. in Prešov region and Košice region) as well as in the southern part of the central Slovakia (i.e. in Banská Bystrica region). On the contrary, the lowest unemployment rates are linked to the districts situated in the western and south-western part, i.e. especially in Bratislava region and Trnava region.

A serious problem for the private enterprises from localization perspective is insufficient level of accessibility which is typical for eastern Slovakia. For instance, there are only few kilometers of highways in Košice region.

Figure 2: Registered unemployment in March 2010 in the Slovak regions (NUTS 4 level)



Source: UPSVaR SR, 2010.

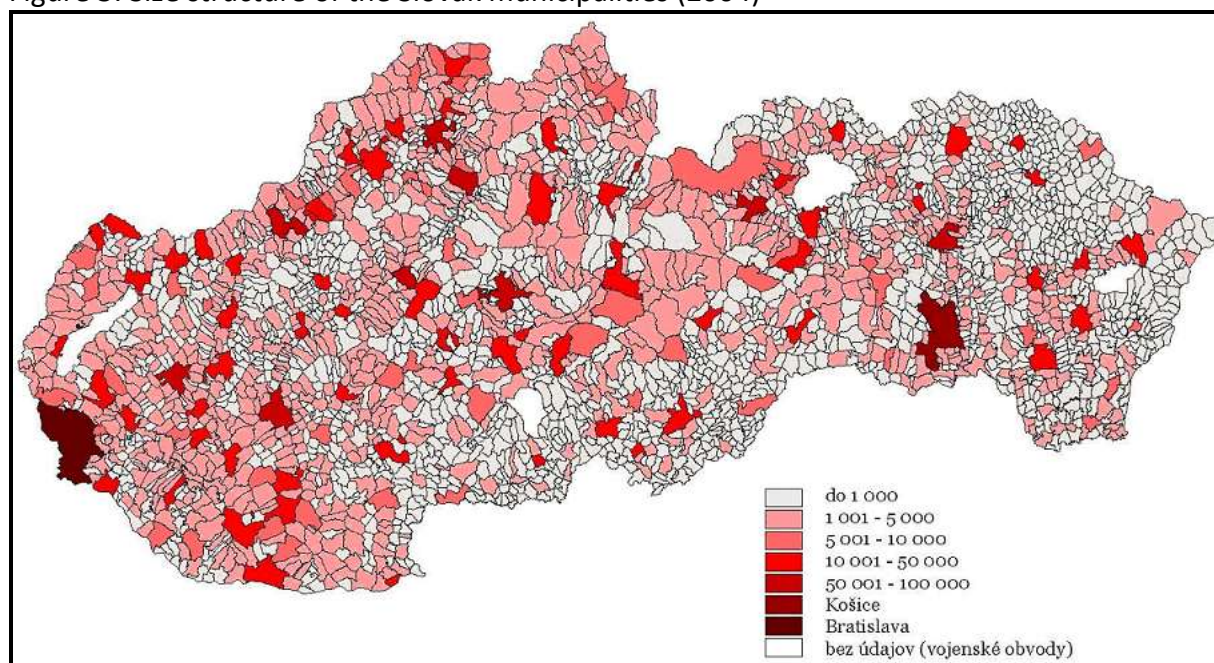
Furthermore, Slovakia belongs to the most fragmented European countries in terms of the size of local units – i.e. municipalities/communities (figure 3). More than 67 % of all Slovak municipalities have a population of less than 1,000 inhabitants. The smallest municipalities (with a population of less than 250 inhabitants) are concentrated in terms of their locations especially in the north-eastern part of the Slovak territory as well as in the areas surrounding the Slovak-Hungarian border of the central part of the Slovak territory. In the western part there are very few such municipalities. On the contrary, only two Slovak municipalities – Bratislava and Košice – have a character of city with a population of more than 100-thousand inhabitants. These cities dispose with so called two-tier local government system, where one tier is created by city en bloc, and the second one involves town districts. The other Slovak municipalities, regardless of their size, have the same structure of local government bodies and the extent of powers (Klimovský 2010: 245). All these municipalities should cooperate with the self-government regions within a frame of regional policy making in order to obtain synergy effect. But, obviously, coordination of the activities of hundreds of municipalities (the case of Prešov region as well as Košice region) differs a lot from coordination of much lower number of municipalities' activities (the case of Trnava region and Bratislava region).

Such highly fragmented structure strongly effects decision making of private enterprises where to locate their plants. Moreover, peripheral regions (like Košice region or Prešov region) with lower share of well-educated inhabitants and bad infrastructure are in unfavorable position (table 5).

Important role within regional innovation policy making should be played by the National Association for Development of Small and Medium Enterprises. The association includes several types of agencies, for instance technological incubators (they should implement a method of research-based spin-off), regional advisory and information centers, first contact centers or business innovation centers. The most of them are situated in the

regions which are both economically underdeveloped and very fragmented in terms of local settlement structure (i.e. in Prešov region and Košice region too) (figure 4).

Figure 3: Size structure of the Slovak municipalities (2004)



Key: “bez údajov (vojenské obvody)” – without any data (army zones).

Source: Zvolenský in: Čavojec and Sloboda, 2005: 19.

Table 5: Numbers of private enterprises and entrepreneurs in the Slovak regions

NUTS 3 level (region)	Private enterprises (corporate entities)		Entrepreneurs (self-employed persons)	
	Number	Share (%)	Number	Share (%)
Bratislava	39,236	32.7	63,573	15.2
Trnava	10,991	9.2	45,570	10.9
Trenčín	10,988	9.2	46,461	11.1
Nitra	11,666	9.7	52,830	12.6
Žilina	11,760	9.8	59,830	14.3
Banská Bystrica	10,805	9.0	45,045	10.8
Prešov	11,535	9.6	61,168	14.6
Košice	12,952	10.8	43,744	10.5
Slovakia total	119,933	100.0	418,221	100.0

Source: SOSR (2008b).

The agencies are managed by central bodies, and their activities are intersected in large extent. There are also some private subjects which perform the same activities. Surprisingly, the official agencies do not cooperate so often and intensively as one could expect and there are huge inter-regional misalignments among them in light of their performance and efficiency. It leads to a state where many official agencies vegetate and are totally depended on central budget subsidies.

Figure 4: Institutional network of the National Association for Development of Small and Medium Enterprises



Key: “INKUBÁTOR” – incubator (technological); “EIC” – European Innovation Center; “FOND FONDOV” – Fund of the Funds; “RPIC” – Regional Advisory and Information Center; “BIC” – Business Innovation Center; “CPK” – First Contact Center.

Source: NADSME.

Quality of regional innovation systems in terms of networks of innovation policy actors

The networks of innovation policy actors and the regional level represent an interesting phenomenon. One could find several approaches how to look at them and how to evaluate their quality, and we have chosen participatory governance approach. Following its context we assume that:

- involvement of various policy actors/stakeholders in the regional innovation policy making is the highest in Bratislava region (in comparison with Trnava region, Prešov region and Košice region);
- cooperation between various policy actors/stakeholders in the regional innovation policy making is the best in Bratislava region (in comparison with Trnava region, Prešov region and Košice region).

The research method which was utilized for our research purposes is interviewing. We interviewed the representatives of the departments/committees/divisions which were responsible for preparation and elaboration of strategic documents related to regional innovation policy, and we asked them about the quality of cooperation with other stakeholders during those processes.

Table 6 contains the information how intensively the selected policy actors were involved and how intensively they cooperated within regional innovation policy making. The other data obtained through interviews are involved in the conclusions.

Table 6: Behavior of different groups of policy actors in terms of their involvement and cooperation within innovation policy actors

Policy making stage	Stakeholder	Region			
		Bratislava	Trnava	Prešov	Košice
Initiation	Universities	Involvement ↓ cooperation ↓	involvement ↑ cooperation ↔	involvement ↔ cooperation ↔	involvement ↑ cooperation ↔
	Private enterprises	involvement ↓ cooperation ↓	involvement ↔ cooperation ↔	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Supporting public/semi-public agencies	involvement ↔ cooperation ↔	involvement ↑ cooperation ↑	involvement ↑ cooperation ↑	involvement ↑ cooperation ↑
	Banks and other potential private supporters	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Public	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
Formulation	Universities	involvement ↓ cooperation ↓	involvement ↑ cooperation ↑	involvement ↑ cooperation ↔	involvement ↑ cooperation ↑
	Private enterprises	involvement ↓ cooperation ↓	involvement ↔ cooperation ↔	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Supporting public/semi-public agencies	involvement ↓ cooperation ↓	involvement ↑ cooperation ↑	involvement ↑ cooperation ↔	involvement ↑ cooperation ↑
	Banks and other potential private supporters	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Public	involvement ↓ cooperation ↓	involvement ↔ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
Selection	Universities	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Private enterprises	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Supporting public/semi-public agencies	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Banks and other potential private supporters	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Public	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
Implementation	Universities	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Private enterprises	involvement ↔ cooperation ↓	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔
	Supporting public/semi-public	involvement ↔ cooperation ↓	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔

	agencies				
	Banks and other potential private supporters	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔
	Public	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
Assessment	Universities	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔
	Private enterprises	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔
	Supporting public/semi-public agencies	involvement ↔ cooperation ↓	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔	involvement ↔ cooperation ↔
	Banks and other potential private supporters	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓
	Public	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓	involvement ↓ cooperation ↓

Key: ↓ - low level; ↔ - average level; ↑ - high level.

Conclusions: common features and differences

Concerning our research questions we can conclude the following points:

A:

No qualitative differences in terms of institutional and normative settings

- There is no qualitative difference among the selected regions in terms of institutional and normative settings of their regional innovation systems. Legal conditions are the same in all cases. Obviously, Bratislava as the capital attracts more private enterprises (and potentially more innovateurs) but on the other hand, the network of supporting institutions is a bit richer in the regions which are not so economically successful. In comparison with other countries of the EU, Slovakia disposes of standard institutional settings related to innovation policies making at the regional level.

Differences in terms of participation governance

- Participation governance is defined like integrative, multi-dimensional, reflective approach which requires/comprises joint working of various stakeholders. Following this definition we can state that there are significant differences between Bratislava region (as capital and central region) and other regions. Even in the Trnava region which cannot be considered a peripheral region, the stakeholders/policy actors are involved into the regional innovation policy in a better way.

Differences in terms of policy making stages

- The worst level of involvement and cooperation has been detected in selection stage. It might be explained by an exclusive right of regional authority to decide as well as by undeveloped official regional lobbying. The best level of involvement and cooperation has been detected in formulation stage and assessment stage. These differences are very similar to other policy making processes, and they confirm that

some groups of stakeholders are being involved rather before and after implementation of some public policy than during its implementation.

Differences in terms of different policy actors' behavior

- By means of comparison, we have supported the idea that different groups of policy actors have different relations to regional innovation policy. And these relations influence their behavior linked to potential participation too.

B:

Basically, the interviewed persons have identified three reasons of low level of either involvement or cooperation within regional innovation policy making processes.

Lack of regional research and development capacities

- First of all, it is an incapability of private actors to take part in such processes. This incapability is connected to weak cooperation networks between the private enterprises and research and development institutions. In fact, there are only few strong innovateurs in the regions which spend most of regional research and development capacity. It is visible particularly in the peripheral regions where few research and development institutions perform their activities. Their research and development capacities are limited in both qualitative and quantitative point of view, and therefore, if there is some strong innovateur located, the other private enterprises have a problem to find relevant research and development partner.

Undeveloped culture of innovation

- Many small – i.e. focused on local market – private enterprises or entrepreneurs are not interested in innovations at all because neither their competitors nor suppliers and not even their customers are oriented towards innovations and there is not any pressure for innovative approaches. Consequently, they are not interested in the policy making processes linked to regional innovation policy. This is valid especially in the countryside which is very fragmented.

Lack of regional accountability and willingness to be engaged

- The last but not least finding is a lack of regional accountability or willingness to be engaged. In fact there are significant qualitative differences among the selected regions. While involvement and cooperation of regional governments with other non-governmental (both profit and non-profit oriented) policy actors in Košice region, Prešov region and Trnava region is in many cases higher or average at least, Bratislava region and its authorities have problems even to involve relevant policy actors and to cooperate with them.
- An interesting story is a behavior of the universities. It seems, according the data provided by interviewed persons, that the universities which are situated in the non-capital regions cooperate with the authorities more willingly than the universities which are situated in the capital. On this matter, the interviewed persons from Bratislava region frequently stressed that although there is a huge research and development potential in Bratislava and its surrounding, people from universities either request too high expert fees or they are too academically oriented and do not want to cooperate with practitioners. The universities in peripheral regions sometimes go behind “their borders” and they are involved in the regional innovation processes of the other region (this is quite typical for regions like Prešov region and Košice region).

- Public – i.e. the inhabitants of regions – is very passive. Although its members have a right to take part in the decision making processes linked to public affairs, they do not use it.

C:

Average level of involvement

- Involvement, especially if one looks at potential involvement in the regional innovation policies making, is average in general. We have, however, identified a few interesting inter-regional differences. Although Bratislava is the most attractive region for the private enterprises, the involvement of them is lower. The same situation is surprisingly in the case of universities too. On the other hand, the authorities in the regions which are economically not so successful are able to involve those partners in larger extent. Concerning involvement of public, the situation is similar in all selected regions and we have to stress that the situation is bad from perspective of participatory governance concept.

Formal involvement instead of real cooperation

- Generally, cooperation of relevant policy actors within regional innovation policy making processes is a bit worse than their involvement. It means that even if the relevant policy actors are involved in the regional innovation policy making processes, it does not automatically lead to any deeper cooperation. Vice-versa, involvement of those actors is sometimes only formal. And again, analogous to involvement, the authorities in Bratislava region are not as successful in cooperation with private policy actors as the authorities in other regions within regional innovation policy making processes.

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