

**Innovation networks, policy networks, and regional development in transition economies. A conceptual review and research perspectives.**

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## **Abstract**

The regional development has attracted the interest of researchers in economics, political sciences, geography and sociology for a long time. In the European context, the issue becomes even more important in view of the Eastern enlargement of the European Union, which will significantly increase the social-economic and territorial disparities within the Union. The importance of a regional development policy to the Enlarged EU is obvious. However, there is a search of ideas, models and approaches which will make such regional policy successful in the specific conditions of the new member states.

The present submission intends to review two such models, which have received substantial theoretical consideration, and which have also been integrated into practice of the EU regional policy. These are innovation networks and policy networks. It first offers a review of research of the innovation networks and policy networks, which originates from “advanced economies” (Western Europe and North America). It then looks at the post communist transition in Central Europe in light of the two concepts. It will be argued that, so far, the post-communist transition has been dominated by the classical approaches. In the economic realm it has been the free market economy (along the classical lines) and in the political realm it has been formal representative democracy. However, these two being definitely basic, will need to be completed by more collaborative and participatory forms of economic and political activity, if economic and social development is to be achieved. Lastly, the article puts forward a research agenda as an input to policy development.

## Introduction

The present submission discusses the concepts of innovation networks and policy networks in the context of socio-economic and institutional development in the transition societies. Ample research has been devoted to the issue of economic development and the factors of economic success of territories, be it national or sub-national. The research, however, has mostly originated from the advanced economies in Europe, North America and, less often, in Asia. Most frequently the focus was kept on the successful regions, with substantial effort to identify determinants of their success. A somewhat lesser interest has been paid to regions “lagging behind” (Seri 2003). In this submission this debate is related to the Central European transition. Arguably, there is a continuous search of model of socio-economic and institutional organisation, which would be conducive to development.

This is certainly a burning but rather new issue in transition in economies.<sup>1</sup> But the relative novelty of advanced concepts of socio-economic development in the territories of the post-communist societies should not be surprising. It is impossible to cover all needs immediately and at once. Those countries were first obliged to carry through political and economic reforms at the macro level. They first needed to lay down the foundations of democracies and market economies to replace the various aspects of the communist regimes. However, it now appears that the macro change translates with difficulty – or unevenly – into micro well-being. Only selected sections of post-communist societies have benefited from the transition, and cleavages have proliferated. Most clear among these are: the city versus country side, young versus old, well-educated versus poorly qualified. But more importantly, these various sections of the societies are also territorially situated. Therefore the suffering social cohesion is synonymous to weak territorial cohesion, which is often even more striking in the transition countries than in the stable capitalist economies. A regional development policy finds a strong rationale here.

The present submission focuses on two particular concepts: innovation network and policy network. These are seen as concepts of regional development which have proven successful in numerous locations. These two concepts are selected for clear reasons. In the realm of the regional economic analysis, the relevant literature exhibits a wealth, not to say a plethora of concepts which strongly overlap. To mention only some: industrial districts, clusters and agglomerations, business networks, technopoles, growth poles, production systems. The concepts of innovation networks (or systems) and policy networks permit, however, to stress important aspects for regional development in transition economies (and elsewhere). First, these concepts elaborate the idea of network as a governance arrangement different from pure markets and hierarchies. The network plays down, or complements the principles of power and competition (equally present in the economic and political spheres) and adds such principles as partnership, cooperation and contribution. In this sense a network corresponds to the idea of heterarchy, emphasising the variety of agents, interests and resources, of which none single can achieve its aims in complete isolation and all are mutually dependent.

Innovation has come to be seen as a crucial propeller of economic growth and success, both at macro and micro level. However, it will be argued here that the meaning innovation should be taken further than its strictly economic sense. Innovation should equally concern the political realm (which may be seen as institutional development) as well as social and cultural innovation (social development). Arguably, a balance of the three will be most gratifying as it

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<sup>1</sup> Szomburg (2003) for instance argues that the debate on the state and the functioning of the Polish state was started for a first time in the public realm only in 2003.

exactly addresses the issue of territorial cohesion. Last, with regard to policy, it is recognised that a pure market managed by an ephemeral invisible hand, is more of an idea than a practice. Socio-economic transition, like that in post-communist countries, is a political process, that is, it is marked by political options and choices. Thus, a policy network offers an interesting conceptual framework for the analysis of such policy options and for the resulting policy design.

The paper attempts to offer a conceptual review of the issues specified above. It remains on the theoretical ground, by relating the concepts of innovation networks and policy networks to the particular situation of post-communist transition in the new member states of the European Union. These countries are gaining the access to the substantial financial assistance within the framework of the Structural Funds and will face the need for effective policy development.

### **1. Conceptual foundations: the classical school and the evolutionary school of economics.**

The paper departs from the long-standing controversy between the classical school of economics and the evolutionary approach. The economic success has intrigued social thinkers since early times of the modern economy. A fundamental and long-standing debate has been between the view that stresses “market-only” nature of the economic activities and the party that adheres to the “not-only-market” stance.

The modern capitalism took its roots in the western industrial countries, originating in the worldview of Enlightenment, fascinated with rationality as a capacity of human mind. The classical economy looked to exact sciences, physics in particular. The underlying aspects were the natural equilibrium, the rationality of man and his quest for maximum utility stemming from his self-interest (Dosi *et al.* 1988). The economic processes are seen as self-regulating, with a general tendency to reach some kind of equilibrium. The market is driven by the interplay of cost and income, and supply and demand. The maximising capitalists are on a quest of the best possible benefit, following the principle of maximum output with minimum input. As they are all independent and all with the same motivation, competition is the fundamental rule of economic operation. An invisible hand of the market allocates all the resources and brings the whole system to a balance.

This conceptual framework underlay the early development of capitalism, which in practice was characterised by the spread of Taylorist and then Fordist method of production. The Industrial Revolution replaced the feudal system, first, by elevating the city as the centre of the economic activity, and second, by introducing large and homogenised industrial organisations. The production mode in these was based upon a far-reaching product standardisation – the legendary all black Fords are the best example – and a strict labour division between the concept and the execution (the design and the production). The mechanical assembly line was the brand mark of the classical capitalism (for an excellent analysis of the Fordist economy, see, e.x.: Cooke 1990).

The classical economy, and its expression in the industrial practice, from early on attracted some significant critique. Thorsten Veblen, an economist of the early XX century, occupied a rather different position, distancing himself from the classical equilibrium, rational optimisation, and a mechanistic view of the world rooted in natural sciences of the Enlightenment. Instead, Veblen, borrowing ideas from evolutionary biology, viewed the

*economic life* as continuous process of change. Veblen argued that there is hardly any equilibrium at any time, and what is rather more important is the constant motion and causation. The economic activity is basically characterised by change, competition and selection, and so it constantly remains in disequilibrium (Veblen 1899). Furthermore, the market is not the only structure determining the economic activity, but rather it is surrounded by the society in which it is enrooted and by its institutions (Veblen 1898). The market organisations and the institutions maintain a constant interaction and shape each other. If institutions fall into rigidity they are able to block the change in the market, but if they are receptive to change themselves they may support the evolution of the entire complex. Veblen was most interested in locating the factors that either inhibited or promoted such evolution.

Well into the twentieth century another social thinker attributed even more importance to economic change, thus undertaking a polemic with the classical economy. For Joseph Schumpeter what mattered more than the market equilibrium was the economic dynamism, found first and foremost in entrepreneurship and technological change. Schumpeter's work itself exhibited a certain evolution. Early in his work, Schumpeter focused on the individual entrepreneur and his actions in quest of the new. Schumpeter argued against the classical views of the perfectly competitive markets and price rivalry, by saying that:

“[...] it is not that kind of competition that counts but the competition from the new commodity the new technology, the new source of supply, the new type of organisation – competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundation and their very lives (Schumpeter 1943, quoted in Cooke and Morgan 1998: 10).”

In another passage Schumpeter explains even more clearly his view with regard to innovation as part of economic progress:

“Here the success of everything depends upon intuition, the capacity of seeing things in a way which afterwards proves to be true, even though it cannot be established at the moment, and of grasping the essential fact, discarding the unessential, even though one can give no account of the principles by which it is done. [...] In the breast of one who wishes to do something new, the forces of the habit rise up and bear witness against the embryonic project. A new and another kind of effort of will is therefore necessary in order to wrest, amidst the work and care of the daily round, scope and time for conceiving and working out the new combination (Schumpeter 1934, *ibid*: 11).”

As it is apparent from these two, rather colourful passages, Schumpeter attributed a great role to the change and innovation, the “new combinations”. For this approach, the market equilibrium is less important than the individual and organisational capacity to adapt, change, and permanently search for new products, production processes and forms of organisation. The competition, fundamental to the market economy, is played not only on prices but also on product quality and diversity. No product has an infinite life-time; a replacement is an economic fact. So, the pace and the scope of replacement that a producer is capable of offering will determine its competitive position in the economy.

According to Schumpeter, technological change is largely behind such capacity. This argument seems even more valid today, half a century later, where advanced technologies

determine competitive position on a global scale. In a simple definition technology is the set of tools, machines, and materials used for production (from hammer to plasma cutting devices, and from wood to polymers) and the knowledge to use these tools (theoretical knowledge, manual skills, organisational and management competencies involved in the particular production process). A more formal definition emphasises the knowledge aspect of technology:

“[...] technology is the *current* state of our knowledge of how to combine resources to produce desired products (our knowledge of what can be produced)<sup>2</sup>.”

The role of technology in the economic development has been seen in many different ways by different schools. It was addressed in terms of a “residual” in the classical economic models, an external factor in the modelling. The view has been countered by the evolutionary approach, of which Veblen and Schumpeter as seen as forerunners, and which places knowledge and technology at the centre of the economic activity. From the evolutionary perspective, organisations are dynamic repositories of knowledge. Any single agent (for example an individual entrepreneur or a company) may only possess a fraction of information and knowledge at any single time. What is therefore important to them is the manner in which they can acquire the knowledge they need. Knowledge may be created and obtained in many ways, within an organisation and externally. This is akin to a learning process, in an environment characterised by uncertainty, as information is inherently incomplete and constantly changing. However, organisations need to have a learning skill, or in other words and absorptive capacity. As Cook and Morgan define it, “[...] absorptive capacity is the firm’s ability to recognise, assimilate and exploit knowledge, from within and without (Cook and Morgan 1998: 17)”.

But the school of the evolutionary economics does not limit itself to the realm of the firm. It also puts forward an understanding of territorial socio-economic organisation. If knowledge creation and acquisition – or learning, in other words – are central to the functioning of a firm, much the same applies to all other firms as well as their environment. The territories – regions and localities – all have their own peculiarities, acquired throughout their histories. First, the environment is composed of the territorially specific endowments, such as the infrastructures, existing industries, knowledge base, etc. Secondly, the institutional dimension is attributed a great importance, particularly in Veblen’s view. Institutions are understood here in a double sense; tangible and intangible. The former take the physical form, of organisations such as educational and research institutions, financial institutions, knowledge transfer units, the governmental and judicial institutions, etc. The latter, in turn, are made of regularities and patterns of economic behaviour, [and] the habits, norms, routines, established practices, and rules, which pattern behaviour (Johnson and Gregersen 1996). The institutional set-up is related to the particular culture of a community, with components such as attitudes, mentalities, value systems, common experiences and identities. The culture is a product of history; in this sense it is path dependent. The notion of path-dependency is crucial to the evolutionary approach. It means that the past experiences determine and limit the present options. But it stands next to the other element of the evolutionary theory: innovation.

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<sup>2</sup> Wikipedia, The Free Encyclopaedia, <http://en.wikipedia.org/wiki/Technology>

## 2. Innovation, systems and development.

Innovation has come to be seen as the motor of economic progress and development and in this manner a central factor of competitiveness. The word has the etymological core of *nov*, signifying new. Innovation therefore implies the search and the making of something new, in a variety of settings. Following Schumpeter's definition, Dosi defines innovation as:

“[...] the search for, and a discovery, experimentation, development, imitation, and adoption of new products, new production processes and new organisational setups. (Dosi 1998: 222).”

Dosi further points to two important features of innovation, which are uncertainty and cumulateness. That means that innovative activities involve the discovery of the unknown, be it in terms of product and processes, as well as, the reaction of the market to the new products. Risk is inherent in innovation. Cumulateness, in turn, means that innovation is a learning process resulting in growing skills; the more innovation there is the more innovative capacity there will be.

It is, however, possible to expand the notion of innovation beyond its strictly industrial and economic meaning, and consider social innovation as well institutional and policy innovation, which play significant roles for economic development. For example, in its Green Paper on Innovation, the European Commission (1955) puts forward a broader understanding of innovation. There, innovation is synonymous to “the successful production, assimilation and exploitation of novelty in the economic and social spheres”. It offers new solutions to problems and thus makes it possible to meet the needs of both the individual and society.” The value of this definition is in the fact that it covers the social sphere as well as the economic realm, speaking of both societal and individual needs. Arguably, the economic innovation of the previous definitions is contained here as the basis for social innovation; the economic development fuels other dimensions of development. Social innovation touches on social issues, such as health and education, public safety, culture and arts, local identity, and social inclusion. Lastly, policy innovation concerns the search and implementation of new policies and actions in the public sphere and the new methods of policy making and project design. To this is strongly related institutional innovation, which signifies new modes of organising and managing institutions and new manners of interaction between the institutions and the other agents, in the economy and the society.

It is this interaction that is now seen be central to the innovation process. While Schumpeter originally saw it as an individualistic, and almost a heroic act of creativity of a brave entrepreneur, more contemporary view attributes innovation to co-operation among many individuals, organisations and institutions. Internal territorial integration of economic, social and political activity is the key to innovation. The successful regions are seen as internally coherent, with strong relationships among the economic actors and among them and their institutional and social environment. This variety of agents constitutes a system or – in other words – a network. It is intriguing what brings the various agents to joining the network and what the internal dynamics of such a network is. Arguably, the network motivation may be found in the notion of interdependence. Hardly any single organization or institution possesses *all* the resources necessary to achieve the level of competitiveness or effectiveness required by the complexity of the contemporary economy or policy-making. The resources meant here are in particular knowledge and information, not forgetting more material assets.

Cooke and Morgan adhere to the systemic networks-based view of innovation and they introduce the term of *associational capacity* of organisation and institutions, which they define as:

“...[a] capacity for forging co-operation between managers and workers within the firm, for securing co-operation between firms in the supply chain, and for crafting co-operative interfaces between firms and the wider institutions milieu, be it local regional or national. This institutional milieu is to be understood in a dual sense, consisting of both ‘hard’ institutions (the ensemble of organisations, like government agencies, banks, universities, training institutes, trade associations, etc. which have a bearing on economic development) and ‘soft’ institutions (the social norms, habits and conventions which influence the way in which people interact) (Cooke and Morgan 1998 : 9).”

The argument is, thus, that innovation is a systemic phenomenon. A system of innovation can be defined as “the network of institutions the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies (Freeman 1987). A more generic definition of a system of innovation is offered by Lundvall (1992): “a system of innovation includes “all parts of the economic structure and the institutional set up affecting learning as well as searching and exploring”.

The business and industry is of course central to an innovation system, as it is where the actual innovations take place. According to innovation conceptual framework, this sub-set itself is characterized by a strong presence of networks and networking activity. This view of innovation attributes the innovative capacity to the vertical and horizontal interactions between enterprises. Horizontally, the competitors may be source of invaluable knowledge and experience, as well as partners in some business activities (Ebers 1999). Vertically, suppliers and subcontractors as well constitute sources of information, knowledge, as well technological solutions. Also, the role of the end users has been recognised as contributors to the innovation process.<sup>3</sup>

The knowledge sector is a second element of the system. This comprises the education and training (E&T) subsystems as well research and development institutions (R&D). The education and training provides individuals with knowledge skills and competencies which supposedly necessary to their productive professional activity, both as employees and, perhaps more importantly, as entrepreneurs and employers. Universities as well play a largely significant role in research and development alongside other more dedicated institutions. Together, they provide the economy with advanced knowledge, as the very basis of innovation.

The financial is system the third component if an innovation system. The banking system and other credit institutions provide financial inputs to the business system, but are not always supportive to high risk activities associated with innovation and technological innovation. Therefore, they ideally need to be complemented by venture capital institutions. Another feature of the financial system with importance to innovation is its temporal approach. As innovation is inherently risky and largely unpredictable (in terms outputs and returns), a financial system which expects quick measurable results is less supportive to innovation than

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<sup>3</sup> One of the most telling examples of producer – user co-operation is the aeroplane design and production as shown by the Airbus A380 project ([http://www.airbus.com/media/a380\\_family.asp](http://www.airbus.com/media/a380_family.asp)).

one which allows for a mid- and long-term perspective for product and service development and for the financial returns.

Another agent within the innovation system is the intermediary sector, whose role is to promote and facilitate the interaction among the agents of the economy discussed above. These may be institutions such as employer organisations, trade unions, chambers of commerce, and other kinds of associations, as well as public or private entities, such as development agencies and technology transfer units. An important role, to which we will return later, is given to the public sector, that is, to the governmental bodies at various territorial levels.

To this is related the last element to the concept of innovation system, which is different from all previous, as it is intangible. It is what has been termed social capital, and it is defined as features of social organisation – such as networks, norms, and trust – that facilitate co-ordination and co-operation for mutual benefit (Putnam 1993). Social capital has attracted substantial interest in research (ex. Bourdieu 1980, Coleman 1988, Putnam 1993, Fukuyama 1996). A major contribution has been made by Robert Putnam (1993). Putnam, who studied the Italian regions according to the north-south division, argued that social capital stemmed from strong and long-lasting civic traditions, present in particular in so-called Third Italy. According to Putnam, a rich landscape of associations, foundations, social clubs and even choruses constitute the ground of economic strength, as in this social vibrancy the economic relations are embedded. An alternative view of social capital is put forward Cohen and Fields (1998), who oppose the Putnam's views of the Third Italy to the analysis business culture in the Silicon Valley. Following the seminal research of Anna-Lee Saxenian (Saxenian 1994), they argue that the social capital found in the Silicon Valley does not have a strong social input or output, but rather is strongly rooted the strategic business relationships and partnerships, developed over time. The common denominator of these approaches is that communities develop commonalities, 'public spaces' within which interactions take place. Such public spaces are characterised by trust, a set of socially sanctioned norms, and most importantly a disposition for co-operation and a degree of collective action, which does not limit individual rights or the private sphere. In this view, the economic activity is characterised by a mixture of competition, fundamental to capitalist economies, and co-operation in selective activities between firms themselves and the firms and their social and intuitional environment.

Systems of innovation may be located at various territorial levels. Two major territorial approaches have been developed, namely, national system of innovation (NSI) and regional system of innovation (RIS) (Braczyk *et. all*, 1998, Coke, *et al.* 2004; Lundvall 1992). Basing, on these seminal contributions, Oughton *et al.* (2002) offer an interesting theoretical view of the rationale of the two approaches. Their model is based upon the analysis of the variance of the intensity of innovation activities and R&D, either between nations or between regions. In their argument, if such variance is higher between nation states than between regions there is a strong rationale for search of explicative variables within the NSI framework. A reverse argument is also valid. Resulting from an empirical investigation, they argue that the variation of innovative activities is significantly higher between regions then between nation states. While their position should be acknowledged, here it is argued that the two levels of analysis are quite complementary. Just as states are composed of regions, national systems of innovation are composed of regional systems of innovation. Furthermore, it is accepted that systems of innovation may also be local and supranational, as well as sectoral (Nelson 1993).

Socio economic systems are open, even though they may have their boundaries. It is indeed important for an innovation system to maintain external linkages both to other territorial levels and to other innovation systems, as a fundamental risk even for a successful innovation system is a systemic isolation and a lock-in. In this view, singular territorial entities (local or regional innovation systems), are part of, and function within a larger frameworks (national, continental and global), though the intensities of interaction may be different at various levels

Departing from their concept of associational capacity, Cooke and Morgan (1998) elaborate a more comprehensive framework to grasp the notion of systemic innovation, under the terms of associational economy. They locate it in between two other co-ordination frameworks, which they call state-centred repertoire and neo-liberal repertoire. The state centred approach originates from the Keynesian economic approach, where the state received very significant roles in economic policy. In particular, the state embraced the demand management, by significant budget spending in the economy, for example in the area of infrastructure. It was also responsible for the scrutiny of anti-competitive behaviours and the provision public goods, particularly the entire complex of social security. The state-centred position has been put substantially to question in Europe, in light of the global competitive pressure. The expensive budget intervention in economy has imposed heavy costs on the economic agents (in terms of taxation and social charges), and the welfare state, interested in assuring over-all security to its clients, led to excessive regulation and rigidity in the markets, lowering the levels the general adaptability, and thus of competitiveness of the European economies.

A sharp response to this problem has been given by the neo-liberal repertoire. This favours the positions of the classical economy, by favouring the market, as this is where the economic competence – and rationality – is located. So, the neo-liberal approach advocates that the state should be “rolled back” and reduced to assuring the physical security of the economic agents and the security of their autonomous contracts, that is the role of the classical night-watch. In this argument, the economic agents know best their own business, their rationality, competitive behaviour and quest for the most optimal allocation of the resources will bring the economic growth in a natural manner. The critique of the neo-liberal stance comes, as indicated in the initial section of this article, from the evolutionary perspective which has a different view of the nature of economic agents. The central problem here is that, if knowledge, information and competence factors upon which to the economic (and political) activities are based, then the agents cannot be fully rational and optimising because no single agent is in position to possess all knowledge and information that it requires. There is an inherent informational problem involved in the economic activity as well as in policy making. What matters, therefore, is the capacity of the various agents to obtain and integrate knowledge and information, which is scattered across many agents (organisations, institutions and individuals) and the territories in which they are located.

Cooke and Morgan frame this argument in what they call “associational economy”, an alternative to the previous two approaches. Cooke and Morgan adhere to the evolutionary view of firms and territories, by presenting them as “repositories of knowledge, with social capabilities of compromising, satisficing, learning and resource developing behaviour” (Cooke and Morgan 1998: 75). In this reading, firms are strongly rooted in the localised socio-cultural and institutional milieus, which enable simultaneous competition and cooperation. Such closely established organisational and intuitional networks permit the flow of information, knowledge and ideas. The milieu is not hierarchical but rather heterarchical. As Cooke defines it, a heterarchy is characterised by network-like relationships based on

partnership, trust, reputation, custom, reciprocity, reliability, openness to learning and an inclusive and empowering disposition (Cooke 1998: 9, in Braczyk *et al.* 1998).

The following section moves to the political or rather policy making ground, by introducing a concept analogous to an innovation network, which is the policy network. Whereas the main objective of an innovation network is to promote innovation *per se*, the policy network focuses on the design and implementation of policies, strategies and projects conducive to economic development in general and innovation in particular.

## 2. The concept of Policy Networks

The concept of policy network has been developed in several intellectual cultures and policy analysis contexts. Marsh points out to three distinct schools identifiable in literature, these being the American school, the British school and the continental European school. The American approach focuses on the phenomenon of sub-governments, understood as:

“[...] clusters of individuals that effectively make most of the routine decision in a given substantive area of policy. A typical sub-government is composed of members of the House and / or Senate, members of Congressional staff, a few bureaucrats and representatives of private groups and organizations interested in the policy area (Jordan 1990, in Marsh 1998: 4)”.

The policy making arrangements have acquired several metaphors of which most salient is the ‘iron triangle’. The iron triangle is characterized by a strong symbiotic relationship:

“Each actor of the iron triangle needs the other two to succeed, and the style that develops is symbiotic. The pressure group needs the agency to deliver services to its members and to provide a friendly access to government, while the agency needs the pressure group to mobilise political support for its programmes among the affected clientele (Peters 1986, in Marsh 1998: 5).”

An alternative position within the American literature comes from the pluralist perspective (Hecl 1978, Marsh 1995). Hecl and McFarland bring attention to what they call issue networks, which are very different from the iron triangle. McFarland defines an issue network in the following terms:

“[...] a communication network of those interested in policy in some area, including government authorities, legislators, businessmen, lobbyists, and even academics and journalists. Obviously an issue network is not the same as an ‘iron triangle’. A lively network constantly communicates criticism of policy and generates ideas for new policy initiatives (McFarland 1987, reproduced in Marsh 1998: 5).”

Furthermore, where the proponents of the iron triangle vision argue for strong dependence of actors on each other, speaking even of what they call “agency capture” by the private interests, analysts of issue networks point out to a relative independence of the agents. First, they point out that networks are not so hermetic and the number of participants is usually larger than three. This allows for a greater diversity of interests and coalition building, which will potentially eliminate the chance of domination of the network by one participant.

The British literature (ex. Richardson and Jordan 1979, Rhodes 1990) focus on the notion of policy communities. Observing the policy making in the United Kingdom, they argue that

“the policy-making map is in reality a series of vertical compartments or segments – each segment inhibited by a different set of organised groups and generally impenetrable by ‘unrecognised groups’ or by the general public (Richardson and Jordan 1979, reproduced in Marsh 1998: 7).”

So, this is a vision of a disaggregated policy making process and a fragmented society, represented by a large number of interest groups. To the specific segments correspond policy networks, composed of the particular interests and sections of government. The relations between the players are personal rather than structural (institutional).

It may be concluded that, although the American and British literature are different and quite diversified too, they come to a similarity in several respects. Firstly, these two approaches put forward a broad vision of rather hermetic policy-making process, with a limited number of participants. The exception here is the proposition of Hecló discussed above. Secondly, these approaches are located under the general heading of interest representation and lobbying. Although a consensus may be sought and achieved within this kind of policy networks, the logic is quite specific, as the starting point is the particular interests of the participants. This remains an important qualitative difference from the continental European literature (especially German and Dutch), which point out to another logic.

Essentially, the continental European approach considers the policy networks as having a far broader importance than the Anglo-Saxon view. Here, policy networks amount to a new and complete form of governance. For instance Mayntz argues that “the notion of policy networks does not so much represent a new analytical perspective but rather signal a real change in the structure of the polity” (Mayntz 1994: 5). Similarly, Klijn maintains that “the policy network approach leads to a different view of governance. Government organisations are no longer the central steering actor in policy activities” (Klijn 1997: 33).

Similarly to the debate in the economic context, European literature sets the network among other modes of governance, namely the hierarchy and the market. Hierarchy corresponds to the classical democratic model of coordination, in which there is a vertical, power based relationship between the governing and the governed. The governed legitimise the governing by the election system and then agree to abide by the latter’s decisions. Once involved in the policy making process, the public and non-public agents enter into close relationships, but there is unevenness of power, with the dominant position of the some agents. Markets, in turn, assume an abstract interaction between independent agents, private, public, social and others. The fundamental coordinating rule is the optimisation of output, based upon rational choices. The relationships between agents, are abstract and loose, and there no central coordination.

The policy network offers a different view. The structural relationships within the system exist but they are rather horizontal than vertical, and changing in nature. The important characterising feature of the networks is an interaction rather than control. The network seeks to establish a consensus with regard to policy choices, which results in a positive-sum outcome, with benefit to all participants. Furthermore, the interaction involves resource sharing and exchange and results in the establishment of trust and shared values, thus assuring the network a superior problem-solving (Marsh 1998).

In Borzel's words:

“[...] in an increasingly complex and dynamic environment, where hierarchical coordination is rendered difficult if not impossible and the potential of regulation is limited due to the problems of market failure, governance becomes more and more only feasible within policy networks, in which public and private corporate actors, mutually dependent on their resources, are linked in non-hierarchical way to exchange resources and to coordinate their interests and actions (Borzel 1997: 15).”

The Dutch literature follows a similar path of argument, though using different terminology. Kickert *et al.* (1997) make a difference between what they call rational central rule model and the policy networks. In the former, again, the government is the central player and there is a top-down policy making style. It may well be that at the stage of policy implementation other actors are involved but still they are mere 'implementators', under the control of the main policy maker.

In case of policy networks, however, the government ceases to be the dominant player and becomes just one of many agents, with more or less equal power. The policy making entails cooperation and consensus building and, again, resource sharing. In this view, the policy failure results from the absence of some important actors, a non-cooperation stance, insufficient exchange of information, or flawed management of the network (Marsh 1998: 9).

So, the policy networks occupy a place in-between the two other forms of government, these being the hierarchy and the markets. The main driving force of the hierarchy is by power, visible first of all between the various levels of government and then between the state and the citizens. The markets on the other hand are characterised by abstract relations of exchange as well as by competition. The market power is a factual phenomenon, stemming from the real strength of the market agents rather than any formal arrangement. But an excessive use of power by a dominant agent will undermine the structure of the network, leading the other participants to defensive positions and eventual disintegration of the network.

Nevertheless, the network does not replace the other two forms of coordination, as the power and the competition are unchangeably necessary to the functioning of democracies and market economies. Here the concept of policy network meet with the concept of innovation network, in their similarly *heterarchical nature*.

Table 1. Hierarchy, heterarchy and the market.

<b>Hierarchy</b>	<b>Heterarchy</b>	<b>Market</b>
<p>1. Central principle: <b>POWER</b></p> <p>2. Organisation: Vertical relations of subordination: Citizens Political/administrative Institutions Citizens</p>	<p>1. Central principles: <b>PARTNERSHIP PARTICIPATION</b></p> <p>2. Organisation: Vertical and horizontal relations, with participation of many agents from various sectors, characterised by cooperation, partnership and resource sharing.</p>	<p>1. Central principles: <b>COMPETITION OPTIMISATION</b></p> <p>3. Organisation: Abstract horizontal relations of buying and selling, specific vertical relations within the production or supply chain</p>

To be sure, power and competition are ever present within networks (Cooke 1996). Power in networks is rather a factual phenomenon and not a formal one, as it stems from the position and resources contributed by the participants. A public administration, with its political legitimacy, important financial resources, and the capacity of producing results in a formal manner, frequently enjoys a strong position within the network. Similarly, large companies will have a more powerful position than small ones. Competition may be in occurrence, as the participants struggle for influence on the decisions and actions of the network. However, we argue that, power and competition are exactly the two elements which are played down with a network, or should be. Arguably, the two integrative forces of the network are partnership and participation. Hardly any agent will be interested in assuming a submissive position within a network. Once the network is excessively seized by power and competition, the very basis of a network is jeopardised.

The continental European perspective of policy networks leaves the interest representation, elitist logic. It focuses rather on a policy-making process that stands on a wide cooperation platform, emphasising the involvement of many actors. The cooperation platform has a strong structural and institutional nature, offering base for institutional rather than personal relationships.

Some criticism has been directed to this understanding of policy network, which introduces another element present within the innovation systems framework. This view, although not questioning the basic understanding of the co-operation as the basis of the policy networks, points out to an aspect of it which is shared knowledge and a mutual learning process. While, in case of innovation networks, the knowledge and learning are focused mostly on the technological and organisational development, here knowledge and learning concern the public sphere and the public action. In this view, a network is not only a mechanism “to produce some policy outcomes that allow actors to meet their self-interests; members of a network share consensual knowledge and collective ideas and values, a specific belief system, i.e. a set of fundamental values, causal beliefs and problem perceptions (Borzel 1997: 18). Such network do not resort to strategic bargaining but rather rely on processes of communicative actions like in the case of policy deliberation or policy change through policy learning, that is a change in the belief-system and the resulting policy reorientation (*ibid*).

At this point it is concluded that the theoretical framework, which joins the concepts and innovation networks and policy networks offers an interesting model of analysis the economic and institutional development which constitute the basis of a broader societal and cultural development. It appears particularly relevant to the regional development policy in the context of the European Union, at the time of enlargement. The following section, based broadly on the observation of the Polish transformation, discusses this model theoretically on the ground of a Central European transition.

### **3. The networks in transition societies.**

The transition in post-communist societies is a multi-dimensional process. It takes place simultaneously in political, economic and socio-cultural sphere and at the various levels: supra (global and European), macro (the state as a whole) meso, (the regional level) and the micro (locality, firm, household). It is important to distinguish between shallow and deep transition. Arguably, the transition has been so far successful, although to various degrees across Central Europe, in establishing the *formal* structures of democracy and market economy, which offer only a framework for the entirety of social life. In this manner, it may be argued that a shallow transition has taken place. But the deeper organisational, cultural and mental legacy of communism is more difficult to overcome (Sztompka 1991, Heinrich 1999).

From the *ancient regime*, the post-communist societies have inherited out-dated industrial infrastructures and organisational modes which do not allow them to compete successfully with the other European and global economies. Therefore, the transition is marked by a high level of volatility and the resulting individual, organisational and institutional threat. The individuals and households are in jeopardy of facing economic hardship (e.x. prolonged unemployment) and social exclusion. Organisations (firms) are threatened with the exit from the market. The political institutions are threatened with the loss of legitimacy and by a rising populism. The individual political positions are highly vulnerable, too. This results in a particular sort of political, economic and social interactions, characterised by lack of transparency and high particularism. The public sphere is weak and there poor attention the *bono publico*. Where survival is at stake, the relations between the macro agents (the state, the economy and the society) are marked by a lack of trust, and defensive/aggressive interest representation. Such environment is hardly conducive to economic development and social integration.

The post-community transition has entailed a reconfiguration of the private and public spheres. The central “vice” of communist regime, although with various extents in various countries, was that it encroached on the private sphere of the society limiting personal freedom of mind and the right of initiative. The public sphere was not only imposing but also submitted to ideology, which eventually lead to a double world, the private which was personal and real and the public, with its near grotesque “super-reality” (Sztompka 1991: 299). It is in this opposition that Sztompka identifies a central issue to the transition. This antinomy was phrased in many ways: “society versus authorities”, “nation versus state”, the people versus rulers”, “we versus they” (*ibid.*). The large part of the society that preferred not to join the communist regime would participate in the public sphere to the most limited extent necessary, as the contact with the official sphere would be from “uncomfortable” to “polluting” (*ibid.*). This is in contrast with the private sphere which was where individuals sought fulfilment as far as possible away from to the regime. This antinomy has become a

mental pattern carried over into the post-communist time. The problem of the transition is that while the public sphere has been freed from ideology, and reappropriated through the formal democratic procedures, it unchangeably is perceived as alien and hostile.

The political elites in the post-communist time have not quite succeeded in earning the legitimacy that was expected of them. The shock therapy, which, on the one hand gave a boost to the transition, on the other hand inflicted a lot of social pain, especially to those sections of the society (and to those territories) which were the most uncompetitive and vulnerable under the new circumstances. At the same time, however, the political elites now seem incompetent to complete the transformation, so that the non-competitive sections of the economy remain non-competitive, and thus the suffering continues. This constitutes a lock-in situation, where socially most difficult reforms still remain to be carried through but it takes a great deal of courage to carry them through.

Thus, the transition is highly conflictual, which only adds difficulty to the process. And yet, arguably, what appears necessary for the success of the transition and a certain consensus and a cooperative stance on the part of many agents of the change. But the representative democracy, with all its formal legitimacy, does not support this specific dimension of the process either. It has the characteristic feature of placing the responsibility for policy making in the hands of the representatives, i.e. the government, at various levels. Such democracy therefore has by nature a hierarchical, top-down character. Furthermore, in its majoritarian form, opted for by all the transition countries, it creates winning majorities and losing minorities, in the context of accentuated clash of interests (Lijphart 1999). The potential effect is the exclusion from policy influence of various sections of the societies and disenchantment with the democracy itself.

Here the weakness of the public sphere is most prominent. Szomburg (2003) argues that, in the Polish case, the elitism of policy making has been quite detrimental to the legitimacy of those policies. He argues that there is a strong need much broader public debate on the situation of state and the direction and measures of development than has been thus far. There is case for a more participatory and co-operative democracy which does not replace the formal representative structures but rather complements them. In the economic realm, the shock therapy approach characteristic of the initial transition period was well placed in within the neo-liberal logic. The transformation amounted to a drastic change within a very short period of time, setting new demands to the individuals, organisations and institutions. The social logic was not only shed but also compromised. The post-communist societies were thrown from a collective logic into an individualistic one almost overnight.

It was demonstrated that the network model is located between the state hierarchy and the classical free market. It offers a complementary mode of co-ordination, which while respecting the individual and private sphere, brings various agents into the public sphere, for deliberation and joint action. Such model, would not, however, come to the transition countries without a difficulty. As has been argued, the transition is marked by a high level of social threat and conflict. The various agents occupy strongly defensive positions and their co-operative readiness is low. This introduces the crucial question of how network based governances can be constructed in the transition societies.

Arguably, the membership of the European Union provides such an opportunity to its new member states, particularly in the framework of its financial assistance programmes. The principle of partnership is one the fundamental principles of the structural funds

programming. The concept of networks has been the specific theme of several initiatives within the Structural Funds, such as Community Initiatives and Innovative Actions<sup>4</sup>. However, the principle of partnership may be interpreted in various ways by national governments, which still remain the main interlocutors of the European Commission in the planning and implementation of the EU structural assistance. As Pietrzyk argues:

“[...] the practice of the principle of partnership is different across the member states of the EU, depending on their political culture and experiences in the matter of dialogue and co-operation (Pietrzyk 2002: 174, own translation).”

## Conclusion

The article has discussed two concepts of networks: policy networks and innovation networks, in the context of Central European transition. It started by presenting a controversial debate between the classical school of economy and the evolutionary approach, which underlies the theoretical view of networks as a form of socio-economic and political co-ordination. It then defined innovation and identified the principles of networks, both in the economic field and in the policy field. Then the concept of network was related to the particular situation of Central European transition, in an attempt to identify the socio-economic and cultural determinants to the emergence of network in this field.

Rather than presenting some concrete research results, the article is positioned on a theoretical ground. In conclusion, it is argued that opportunities for new political and economic approaches are opening, particularly by the membership of the European Union. By the same token opportunities are opening for the knowledge sector, of which the University is the heart, to play a more direct role in the socio-economic and institutional development in the transition countries. One is the new didactical and research agenda – where such still do not exist – which are informed by the ideas of innovation and networks. Another is an active involvement in the construction of innovation and policy networks, particularly at the regional and local level. Third is the transformation of the University into a networked organisation itself.

At the macro level, an interesting question is how the academic sector may offer a valuable contribution to the public debate concerning the socio-economic and institutional development of the state and the economy. Here, there may be a case for strengthening of the normative and applied research approaches in social sciences. At the micro level, the regional and local universities may find even greater roles to play. In the didactical and research spheres there is a large scope for teaching programmes and research activities that incorporate the ideas of innovation and networking, in the particular regional and local settings. With regard to teaching, new programmes and courses become more and more popular, such as, for instance, innovation management. The network management as is related topic with interest for departments of political sciences and administration, which remains largely unexplored. With regard to research, the local and regional universities are very well positioned to investigate the specific local institutional setups and networks as well as the local socio-economic profiles. In particular, if policy networks and innovation networks exist, and how they operate in local settings, is one possible line of investigation for the local academic

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<sup>4</sup> Adapt and Employment Community Initiatives have been discontinued, of the current CI Interreg and Urban have strong partnership elements. Innovative Actions, which constitute a specific section of the ERDF specifically devoted to innovation and local and regional networking may be discontinued too (a personal communication from an official of the European Commission).

institutions. Alternatively, why they do not emerge or why they do not succeed is another interesting research query.

Such knowledge may in turn enable the universities to become active agents of development in their respective territories. The EU Structural Funds, for example, allow the universities to be project leaders in various programmes and projects, which creates an opportunity for project design and management, with potential impact on the local territories. The university may assume the role of the network broker, local animator, a “spider in the net”, which constructs the networks, manages it and aims at its expansion.

This brings us to a last question, which is whether, and how, the university may become a networked organisation. Arguably, one possibility is the promotion of interdisciplinarity. This does not only apply to one field with many branches, such as the social sciences, but also to rather distant branches such as social sciences and technical sciences. The classical segmentation of the university into fields, branches and departments is not conducive to innovation, just as segmentation of the enterprise into rigid organisational and hierarchical units. Admittedly, perhaps, the administrative structure of the universities may not change as radically as the business structure, but ever more dialogue and joint activities with different fields and departments should be encouraged. Also, externally, the university may seek to become a true agent of local development. The avenue here is a pro-active stance and a permanent development of links and relationships with the local industry, the public administration, the other institutions of the knowledge sector and the civil society. Although it would be wrong to argue that this does not happen at all in Central Europe, for many universities this may be a field to explore even further.

## References

- Boerzel, T. (1997) *Policy Networks A New Paradigm for European Governance?* EUI Working Paper RSC No. 97/19, European University Institute, Florence
- Braczyk, H., Cook, P., Heidenreich, M., (1998) *Regional Innovation Systems*, UCL Press, London
- Bourdieu, P. (1980) *Social capital: Provisional Notes* Actes de Recherche en Sciences Sociales, 31
- Cohen, S., Fields, G., (1998) *Social Capital and Capital Gains, or Virtual Bowling in Silicon Valley*, eScholarship Repository, University of California, <http://www.repositories.cdlib/brie/BRIEW132>
- Coleman, J. (1998) Social Capital in the Creation of Human Capital, *American Journal of Sociology*, 94
- Cooke, P. (1990) *Back to the Future: Modernity, Postmodernity and the Locality*, Uwin Hyman, London
- Cooke, F. (1996) *Policy Networks, Innovation Networks and Regional Policy: A review of Literature and an Example from South Wales*, in: Heinelt H., Smith, R. (1996) *Policy Networks and European Structural Funds* Avebury, Aldershot
- Cooke, P. and Morgan, K., (1998) *The Associational Economy. Firms, Regions, and Innovation*, Oxford University Press, Oxford and New York
- Cook, P., Heidenreich, M., Braczyk, H., (2004) *Regional Innovation Systems*, Routledge, London and New York
- Dosi, G., Freeman, C., Nelson, R.R., Silverberg, G., and Soete, L. (eds.) (1988), *Technical Change and Economic Theory*, Pinter, London,
- Ebers, M. (1999) *The Formation of Inter-organizational Networks*, Oxford University Press, Oxford
- European Commission (1995) *Green Paper on Innovation*, COM(95) 688, December
- Freeman, C. (1987). *Technology Policy and Economic Performance. Lessons from Japan*. London/New York, SPRU/Pinter Publishers.
- Fukuyama, F. (1996) *Trust: the Social Virtues and Creation of Prosperity*, The Free Press, New York
- Heinrich, H.-G. (1999) *Towards a Cultural Theory of Transition: The strange Architecture of Post-Communist Societies*, in: H.-G. Heinrich, ed. (1999) *Institution-Building in the new Democracies*, Collegium Budapest Workshop, Series No. 7, 121-160
- Johnson, B. and Gregersen, B. (1996) *The institutional set-up of National Systems of Innovation and Economic Integration*, *Journal of industry Studies*, 3
- Klijn, E. (1997) *Policy networks: an overview*, in: Kickert W. J. et al. (1997) *Managing Complex Networks* Sage London
- Lundvall, B.-A. (1992) *National Systems of Innovation Towards. A theory of Innovation and Interactive Learning*
- Lijphart, A. (1999), *Patterns of Democracy. Government Forms and Performance in Thirty-Six Countries* Yale University Press, New Haven and London

- Marsh D. ed. (1998) *Comparing Policy Networks* Open University Press, Buckingham, Philadelphia
- Mayntz, R. (1994) *Modernization and the Logic of Interorganisational Networks* MIPGF Working Paperno. 4, Max Planck Institute, Koln
- Nelson, R. R. (ed.), (1993), *National Innovation Systems*, Oxford University Press, London
- Oughton, C., Lndabaso, M., Morgan, K., (2002) The Regional Innovation Paradox: Innovation Policy and Industrial Policy, *Journal of Technology Transfer*, Vol. 27, 97-110
- Pietrzyk, I. (2002) *Polityka Regionalna Unii Europejskiej* Wydawnictwo Naukowe PWN, Warszawa
- Putnam, R. (1993) *Making Democracy Work Civic Traditions in Modern Italy*, Princeton, University Press Princeton
- Saxenian, A.L. (1994) *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* Cambridge, MA: Harvard University Press.
- Seri, P. (2003) *Learning Pathologies in Loosing areas: Towards a Definition of yhe Cognitive Obstacles to Local Development*, in: Fornhal, D. and Brenner, T. (2003) *Cooperation, Networks and Institutions in Regional Innovation Systems*, Edward Elgar Publishing Ltd., Cheltenham
- Schumpeter, J. (1934) *The Theory of Economic Development*, Harvard University Press, Cambridge, Mass.
- Schumpeter, J. (1943) *Capitalism, Socialism, Democracy* George Allen and Unwin, London
- Szomburg, J. (2003) *Polska wobec wyzwan rozwojowych i integracyjnych*. Instytut Badan nad Gospodarka Rynkowa, Gdansk
- Sztompka, P. (1991) *The Intangibles and Imponderables of the Transition to Democracy* Studies in Comparative Communism, University of California, Vol. XXIV, No. 3 September 1991, 295-311
- Veblen, T. (1898) *Why economics is not an evolutionary science?* *Quarterly Journal of Economics*, Volume 12
- Veblen, T. (1899) *Theory of the Leisure Class: an Economic Study of Institutions* BW Huebsch, New York, 1924