



CITIZENS AND GOVERNANCE IN A KNOWLEDGE-BASED SOCIETY



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Report about the notion of
competitiveness of territory

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Contents

Contents.....	2
Summary	3
1. Introduce.....	4
2. Concept of competitiveness	4
2.1 Competition, productivity, competitiveness.....	5
2.2 Regional competitiveness.....	5
2.3 Understanding regional competitiveness in the EU	11
2.4 Factors of regional competitiveness	12
2.5 Measuring of regional competitiveness.....	23
2.6 Typology of regions	27
2.7 Indicators of measuring of regional competitiveness.....	28
3. Concept of territorial competitiveness	33
3.1 Challenge of territorial competitiveness in sustainable development.....	34
3.2 Measuring of territorial competitiveness.....	34
3.3 The human resource enhancing.....	35
4. Conclusion.....	39
References	39

Summary

In this report we present our concept about territorial competitiveness and this relation to territorial intelligence.

Currently, there are several, well known definitions of regional competitiveness, which interpret the approach of competitiveness on territorial units variously. That's why the correctly chosen definition determines the whole methodology of our research. These approaches of regional competitiveness, we present in this study. After, we aim to describe the measuring of regional competitiveness and indicators of these on level of national and European. The question of regional or territorial competitiveness divides the majority of researcher and experts. The concept of territorial intelligence uses the achievements and methods in additional we expanded this regarding of procession focusing to human factor. At the end of document we visualise the pattern of human potential survey.

1. Introduce

The 21st century sees changes in modern society, social structure, territorial policy, public administration and other fields, generated by the European Union, which have a significant impact on the functioning and efficiency of society. For real competences to find their appropriate places and levels, a mature society are required as well as the investigation and improvement of the maturity of territorial levels prior to implementing any measures.

To be able to induce these improvements, we first need to define the territorial unit where the process is to be launched.

The broadest definition: A territorial unit is a (socio) geographical integration marked by a huge internal cohesion, a fundamental entity of our days. It is a socio-economic geographical unit based on the close co-operation and shared interests of its constituting parts, which cannot, however, always be defined by geographical boundaries.

The resulting definition of the improvable unit (region): A region is the functional connection and integration of geographically close urban areas, agglomerations, settlement units, and infrastructural networks characterized by the gradually growing importance of neighbourhood contacts. The basis of the creation of a region is the territorial blending of society and economy, and an awareness of close interrelatedness between local communities, based on historical grounds.

To reveal the development potentials of a given territory, we need to determine the measurement units relating to the processes we are observing. This unit cannot be but the competitiveness of each area.

The “Competitiveness” sub-project of WP4 (The spreading of fundamental methods and research design in territorial information analysis within the social sciences and humanities) in the CAENTI is a very complex program. One part it needs define the concept of competitiveness and on the other hand it must join to territorial dynamism.

2. Concept of competitiveness

To approach the notion of competitiveness from a regional perspective has become productive in many ways recently. On the one hand, as a consequence of developing in a globalized environment, it has become necessary for theories relating to the region to introduce an umbrella term, and on the other hand, the previous use of the term on the macro- and micro-level lacked the intermediary level that, as a localised level, could refer to an economic field for developments and investments.

Competitiveness is often viewed as a key indicator of the success or failure of policy. The concept of competitiveness, however, while relatively clear when applied to enterprises, is more difficult to define and measure when applied to regions or countries. An industrial region, for example, is not directly competing against a predominantly agricultural region or a financial centre, so the measurement of its relative competitiveness is problematic. Moreover, the term itself tends to convey the impression of a win/lose situation, in which regions can improve their position only at the expense of others, whereas, in practice, there are mutual gains to be achieved from individual regions becoming more competitive.

2.1 Competition, productivity, competitiveness

The notion of *competition* has been defined by many in many ways. According to one of the most comprehensive approaches, competition is an activity where two or more players strive to gain advantage over one another within set rules.

Productivity means efficient use of all the available resources.

Competitiveness means acquiring and retaining position in the market, increasing market share and profitability and being commercially successful.

2.2 Regional competitiveness

Theoretical literature

This chapter presents a brief overview of the various theoretical strands of the literature of regional competitiveness.

Classical theory

Under classical economic theory, specialisation in the form of Adam Smith's 'division of labour' provides for economies of scale and differences in productivity across nations. For Smith, investment in capital (improved machinery) and trade (increasing the size of the market) facilitates this specialisation and raises productivity and output growth. Moreover, growth itself could be reinforcing, since increasing output permits further division of labour and hence further growth. With respect to trade, Adam Smith (1776) demonstrated the gains from trade to be made when moving from a situation of autarky to free trade when countries have an *absolute advantage* in the production of different goods. If one country can produce goods using less inputs (labour) in production then it will have an absolute advantage and should export the good; or alternatively countries should import goods that others can produce using fewer inputs (i.e. where they are produced most cheaply). Thus trade is attributed to (absolute) differences in productivity. Moving beyond Smith's concept of absolute advantage, David Ricardo (1817) demonstrated that gains from trade could be made when two countries specialise in the production of goods for which they have a *comparative advantage*.

Neo-classical theory

The core assumptions of neo-classical theory - perfect information, constant returns to scale and full divisibility of all factors - provide the necessary conditions for the neoclassical world of perfect competition. With respect to trade, the *Heckscher-Ohlin (HO) model*, also referred to as the "factor-proportions model" builds on Ricardo's model by incorporating two factors of production: labour (as with Ricardo) and capital. Whereas the Ricardian model assumes that technological differences exist across countries, the H-O model assumes that technologies are the same across countries and those comparative advantages are due to differences in the relative abundance of factors of production (factor endowments). When different industries use factors in different proportions then countries will specialise in the production of goods that use more intensively the factor with which they are more abundantly endowed. In a 'two country, two good representation', the capital-abundant country will export the more capital-intensive good while the labour abundant country will export the labour intensive good.

Keynesian economic theory

Keynesian theory differs on very essential points from classical economic theory, most importantly the functioning of markets (Keynes, 1936). Contrary to his predecessors, Keynes did not believe that prices cleared markets at all time. This price stickiness can lead to adjustments in quantity (production) instead. Another important divergence is the view on capital and labour. Where classic economists treated capital and labour as two independent production factors, Keynesian theory presumes capital and labour to be complementary.

Development economics

The *stage theory of development* by Rostow (Rostow, 1960) classifies societies according to five different stages: traditional, transitional, take-off, maturity and high mass consumption. Each stage of development has its own characteristics and specific conditions have to be met before an economy can

reach a higher stage. In other words: just letting market forces do their work, won't get the job done. Although highly criticised, this theory has made a major contribution to development economics in emphasising the importance of agriculture and the role of investment in raising the growth rate, as well as setting certain political and sociological preconditions for development.

New trade theory

Traditional trade theory (classical and neo-classical) implies that trade will occur between countries with different technology/factor endowments. It is unable to explain why trade will take place between similar countries (or regions) and, by extension, why different production structures should occur in similar regions. However, one of the main features of the post-WWII period has been the growth of trade between similarly endowed industrialised countries and the predominance of intra-industry trade within this trade. Since production structures and factor endowments are to be expected to be relatively similar across industrialised countries, theories based on comparative advantage are insufficient to explain the pattern of intra-industry trade (differentiated goods in the same product categories) between industrialised countries.

Urban growth theory

A very influential contribution from both sociological and economic perspective has been Jane Jacobs' theory of urban growth (Jacobs, 1969). Jacobs argues that city regions (the urban system), not national macro-economies, are the salient arenas of economic wealth creation and accumulation. Urban systems create increasing returns above all through the exchange of complementary knowledge across diverse firms and economic agents within geographic regions. Presence in such urban agglomerations reduces search costs and increases the opportunity for serendipitous events that would provide innovative opportunities – so-called urbanisation economies. This theory has been supported by empirical studies that conclude that more diversity in the local economy is associated with higher rates of growth (M. Feldman, 2002, p. 385). The importance of diversity has recently been highlighted again by research into the 'geography of talent' (Florida, 2000). Jacobs also draws attention to the fact that urbanisation economies can all too easily turn into diseconomies and engender urban decline; in other words that cities can lose their competitiveness and lose out to other city-regions.

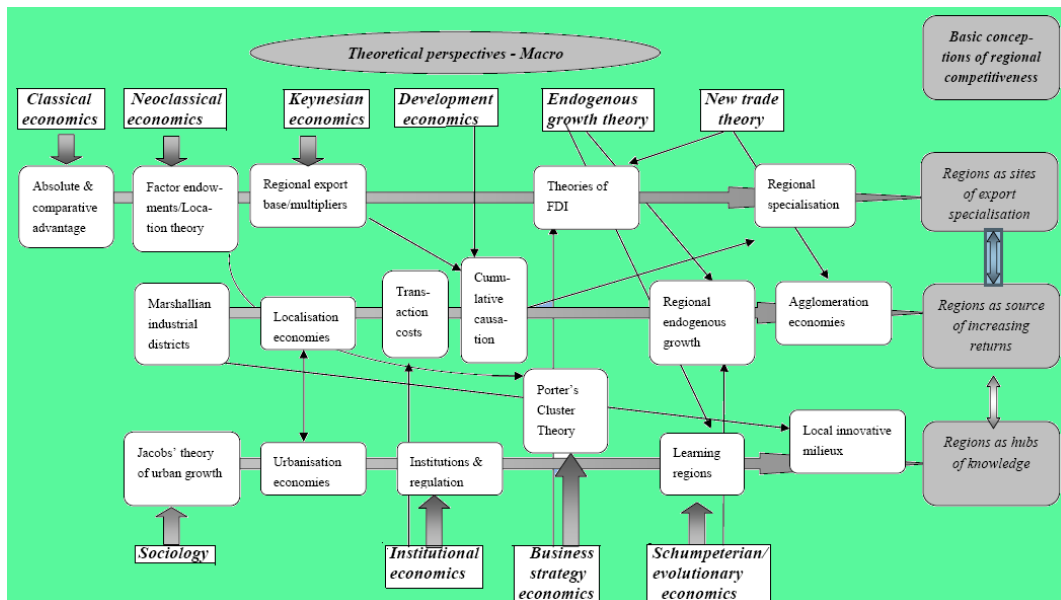


Figure: Towards conception of regional competitiveness

From 1990s more and more researchers treat with territorial and regional science. The main field of interesting is the analysis of territorial as functional regions or nodal regions, also examining factors influencing competitiveness.

Initially it was treated as the enterprise. Similarly to competition in the market of products, where specific product features are compared, regional competitiveness cannot be interpreted as a competition of the regions as such, rather, as a competition based on the comparison of certain regional conditions and segments. Naturally, these segments with all their positive and negative qualities make up the region, which is by no means homogeneous.

Today the regional competitiveness differs from company competitiveness, and accordingly we can make a distinction between two points of views. On the one hand, we can analyze the competitiveness of given regions by interpreting the regions as integral wholes. On the other hand, we can use the lower level of company competition as a starting point and examine what factors and conditions bring competitive advantage to a given region. In our studies we use this latter approach as a guiding line.

To be able to interpret the notions of competition and competitiveness on a regional level, we need to extend a micro-level approach to a macro and global level. Global competitiveness can be approached from various standpoints. But each theory started same item.

Two major issues emerged in the debates aiming at the interpretation of competitiveness: on one hand, how to define competitiveness and what indicators to measure it with? On the other hand, how can competitiveness be improved, which governmental interventions may be regarded as successful? These two questions usually lie in the background of other professional debates too; while representatives of academic economics concentrate on the first one, experts of regional policy tend to focus on the second one. Questions of interpretation, measurement and regional policy related to the concept of competitiveness receive much attention in countries and regions as well.

There were a number of attempts to define the new notion of competitiveness according to new global competition conditions in the mid 1990s.

The modern definitions:

In practice, different definitions can be envisaged depending on the focus of interest.

According „The Report of the President’s Commission on Competitiveness” (1984):

A nation’s competitiveness is the degree to which it can, under free and fair market conditions, produce goods and services that meet the test of international markets while simultaneously expanding the real incomes of its citizens. Competitiveness at the national level is based on superior productivity performance and the economy’s ability to shift output to high productivity activities which in turn can generate high levels of real wages. Competitiveness is associated with rising living standards, expanding employment opportunities, and the ability of a nation to maintain its international obligations. It is not just a measure of the nation’s ability to sell abroad, and to maintain a trade equilibrium.

Definition of OECD Programme on technology and the Economy in 1992:

[Competitiveness] may be defined as the degree to which, under open market conditions, a country can produce goods and services that meet the test of foreign competition while simultaneously maintaining and expanding domestic real income.

A White Paper produced in 1995 by the UK government (Department of Trade and Industry, 1995) offers this definition at the company level:

For a firm, competitiveness is the ability to produce the right goods and services of the right quality, at the right price, at the right time. It means meeting customers' needs more efficiently and more effectively than other firms (DTI, 1995, p. 8).

The OECD defines competitiveness in 1995 as:

The degree to which it can, under free and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the long term (quoted in DTI).

KRUGMAN (1996) and others (such as GROUP OF LISBON, 1995) have pointed out, there may be less to this view of competitiveness than meets the eye. Thus Krugman, making frequent reference to the USA, has argued that:

Concerns about competitiveness are, as an empirical matter, almost always completely unfounded... The obsession with competitiveness is not only wrong but dangerous... thinking in terms of competitiveness leads to bad economic policies on a range of issues.

A study by DGIII of the European Commission sets out:

a 'competitiveness pyramid' in which the top is the standard of living, dependent on the employment rate and productivity. There are then various factors which feed into each of these at lower levels of the pyramid. Thus, employment is influenced by various factors that affect the supply and quality of labour, such as demography, the participation rate and skills formation. Productivity is depicted as being influenced by both market performance and financial performance, with these in turn shaped by the likes of innovation, R&D, taxation, investment and other supply-side variables.

Gordon and Cheshire (1998) suggest that:

territorial competition may be conceived of as involving attempts by agencies representing particular areas to enhance their locational advantage by manipulating some of the attributes which contribute to their area's value as a location for various activities.

Particularly important examples include the proposals put forward by the US Competitiveness Council, the OECD and the European Union. One of the first attempts to create the notion is the European Union (1999) working definition of regional competitiveness.

The ability of companies, industries, regions, nations and supra-national regions to generate, while being exposed to international competition, relatively high income and employment levels.

Competitiveness is defined as the ability to produce goods and services which meet the test of international markets, while at the same time maintaining high and sustainable levels of income or, more generally, the ability of (regions) to generate, while being exposed to external competition, relatively high income and employment level.

In the European Competitiveness Report (2000) we can see:

An economy is competitive if its population can enjoy high and rising standards of living and high employment on a sustainable basis. More precisely, the level of economic activity should not cause an unsustainable external balance of the economy nor should it compromise the welfare of future generations.

Similarly the standard (extended) notion of competitiveness in the Second Cohesion Report of the EU (EC 2001):

Standard definition of regional and national competitiveness has begun to emerge, which relates to the achievement of 'high and rising standards of living and high rates of employment on a sustainable basis.

Michael Porter, who has been amongst the most influential writers on ‘competitive advantage’ – of firm, industries, nations and regions and cities - also suggests that the best measure of competitiveness is productivity in 2003:

Competitiveness remains a concept that is not well understood, despite widespread acceptance of its importance. To understand competitiveness, the starting point must be the sources of a nation’s prosperity. A nation’s standard of living is determined by the productivity of its economy, which is measured by the value of its goods and services produced per unit of the nation’s human, capital and natural resources. Productivity depends both on the value of a nation’s products and services, measured by the prices they can command in open markets, and the efficiency with which they can be produced. True competitiveness, then, is measured by productivity. Productivity allows a nation to support high wages, a strong currency and attractive returns to capital, and with them a high standard of living.

Porter combines the classical basic model with elements of his long-standing work on the competitive strategy of firms, but also takes into account factor endowments. Drawing on empirical evidence from a wide range of countries, he argues that a nation’s globally competitive industries tend invariably to exhibit geographical clustering in particular regions (Porter, 1990, 1998, 2001). This clustering is both the result of, and reinforces, the interactions between what he calls the ‘competitive diamond’. A region’s relative competitiveness depends on the existence and degree of development of, and interaction between, the four key subsystems of his diamond. Weaknesses in any of the elements that make up these four subsystems reduce a region’s competitiveness. And in particular, the absence of functioning clusters in a region means not only that the subsystems themselves will be poorly developed but also that the interactions between them – vital for the generation of external increasing returns – will be hindered and overall regional productivity dampened:

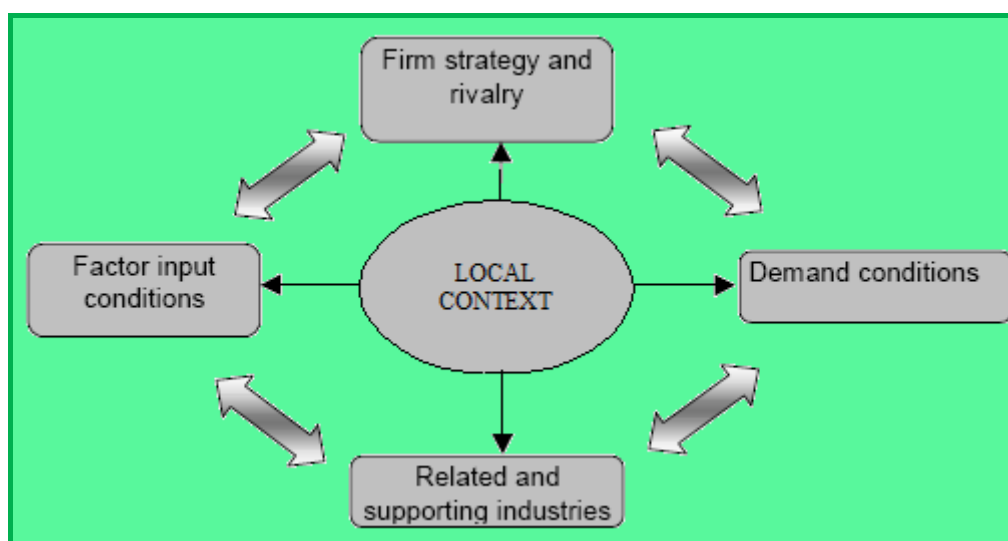


Figure: Porter’s theory of regional competitiveness

The issue is whether this line of argument applies equally to regions and cities. CELLINI and SOCI (2002) argue:

that the notion of regional competitiveness is neither a macro-economic (national) nor micro-economic (firm-based) one: regions are neither simple aggregations of firms, nor are they scaled-down versions of nations.

In 2003 CAMAGNI takes a similar view. He suggests

that regions do indeed compete, but on the basis of absolute advantage rather than comparative advantage. A region may be thought of as having absolute competitive advantages when it possesses superior technological, social, infrastructural or institutional) assets that are external to but which benefit individual firms such that no set of alternative factor prices would induce a geographical redistribution of economic activity. These assets tend to give the region's firms, overall, a higher productivity than would otherwise be the case.

As the EUROPEAN COMMISSION (1999) puts it:

[The idea of regional competitiveness] should capture the notion that, despite the fact that there are strongly competitive and uncompetitive firms in every region, there are common features within a region which affect the competitiveness of all firms located there

2.3 Understanding regional competitiveness in the EU

The concept of competitiveness, as seen in the EU, could be summarised as “high and rising -standards of living and high rates of employment on sustainable basis”.

The traditional measure of competitiveness/standards of living is generally calculated by the GDP per head, despite the fact that some other indicators should be defined in order to integrate the social, environmental, health and well-being dimensions. GDP per head can be broken into two main components: employment rate (proportion of working age population in work) and productivity (GDP per person employed).-Productivity is considered to be a good indicator of competitiveness following the assumption that productivity growth will increase competitiveness, which will in turn favour a higher growth of GDP. The growth of GDP will boost employment. Employment rate and productivity are closely linked to one another but they should be considered separately. Indeed, high level of one does not necessarily go with a high level of the other. For example, one can remind the period of “jobless growth” which struck the EU in the-80's, and which was characterised by high gains in productivity and poor gains in employment creation. Nevertheless, achievement of high employment growth and high productivity are not necessarily in conflict with one another. Indeed, if an economy growth above a given threshold- (2% for the EU) and this level is maintained over the long-term, there will always be net creation of employment. Therefore, we can say that in the long-term, there is always a positive relationship between productivity and employment creation. Lagging regions in Europe have always productivity below average while employment is most of the time (but not always) less important. Actually, in the EU, there are two types of lagging regions:

- regions with employment rates similar to the average but with lower productivity;
- regions lagging in both productivity and employment.

The challenge for lagging regions is to increase/boost productivity by a mix policy without having adverse effect on employment. The policy of the EU regarding competitiveness is to practice a non-price competitiveness in order to keep and improve the living standards, the social and the moral values/models of its societies as a whole. Consequently, the EU places emphasis on structural factors underlying competitiveness which determine the long-term growth, in particular research and innovation, information technology and human capital.

This commitment was confirmed by the ultimate objective of the Lisbon European Council, which has stated that “the EU becomes the most competitive and dynamic knowledge-based economy in the world over the decade, capable of sustainable economic growth with more and better jobs and greater social cohesion”. There is a clear relationship between innovation, human capital and information technology when it comes to competitiveness. Indeed, the capacity to innovate is perceived as the best answer to global competition, the needs to adapt to technological changes and to constantly produce new products, which are elements characterizing the post-Fordist production system. The capacity to constantly innovate and to absorb innovations is directly linked to the level of education of the population. Information technology is a key element when it comes to knowledge development and policy. In summary, in the EU, developing regional competitiveness depends on modernizing and diversifying the productive structure (by developing knowledge-based economic activities and innovation) once a sufficient endowment of physical infrastructure and human capital is attained. This has to be achieved respecting a horizontal condition, which consists in achieving a sustainable development in environmental terms.

2. 4 Factors of regional competitiveness

According to the *Sixth Periodic Report on the Social and Economic Situation and Development of Regions in the European Union*, the main determinants influencing the competitiveness of regions are the following:

- research and technological development
- small and medium-sized enterprises
- direct foreign capital investments
- infrastructure and human capital
- institutions and social capital

The sixth regional report also includes the principal factors that usually characterize successful regions, namely, high rate of employment in business services and in the processing industry, the extent of innovative activities, favourable conditions of regional accessibility, skills of the workforce and a high proportion of university/college graduates.

- - the capacity for economic structural change, especially the emergence of value-adding industries with multiplicative effect
- - high proportion of value-generating service sector (business services, research and development, higher education, culture)
- - typically knowledge-based production
- - strong innovative skills
- - the decision-making takes place in the successful region
- - a strong and thriving middle class
- - valuable settlement environment, an urban policy of high standards, and the availability of good quality public utilities and municipal services
- - successful conflict management

- - significant external (international) relations, integration into the system of towns and relations of an international region
- - increasing income and employment

In additional, the most of the studies and literature put forward some of the following factors as main drivers of regional competitiveness:

1. Clusters;
2. Human capital;
3. Enterprise environment and networks;
4. Innovation/Regional innovation systems;
5. Governance and institutional capacity;
6. Sectoral structure and type of enterprises;
7. Infrastructure (broad understanding);
8. Typology of regions and level of integration of firms;
9. Internationalisation and nature of foreign direct investment (FDI);
10. Geographical location;
11. Attractiveness for investments.

1 Clusters

The competitive advantage of firms in the new economy is greater specialisation, which results in more interdependency with other firms, organisations, and suppliers. Consequently, firms are more and more frequently becoming members of networks or clusters, where they can benefit, among others, from the advantages of pooling common resources and information sharing. More specifically, industrial clusters can be defined³ as firms in related industries that:

- are geographically concentrated in a particular region;
- gain a competitive advantage because of their proximity to each other in the region;
- share specialised supplier and buyer (marketing) advantages because of their location;
- are supported by advantageous infrastructure in the region, such as physical resources

Clustering provides firms with access to more suppliers and specialised support services, experienced and skilled labour pools and information sharing (formal and informal). Clusters are important in regional development and for regional competitiveness in the measure that very often regional economies are specialised to varying degrees. Therefore the competitive advantage of regions can be best understood in terms of comparative advantages of specific industries within the region resulting from clustering.

2 Human capital

The level of qualification and structure of population in a given region affects the competitiveness of the region in the following ways:

- They affect the type of industry which will establish itself in the region and the type of product which will be produced. In other words, the higher the quality of the labour forces, the higher the probability that the regional industry will develop higher added-value production.
- The innovative capacity of a region. The quality of human resources is the major factor behind the invention and diffusion of technology and it is a pre-condition for increasing the capacity of a given economy to absorb new innovations. Moreover,

the development of regional innovation systems (RISs) involving technology-based industries and businesses supposes highly qualified human capital.

- The entrepreneur mentality of the population. Indeed, the capacity of a region to produce entrepreneurs depends upon factors such as the age of the population (inverse relation) and the entrepreneurial culture/risk taking culture developed in the region. This in turn will influence the number of SMEs creation and therefore the dynamism and competitiveness of the regional economy
- The efficiency of the workforce. Indeed, the age of the population and social culture can have a real impact on the competitiveness of the workforce. We mean for example the flexibility of the workforce, the role of women in the labour market, the culture of work, etc.
- The vitality of a region. Indeed, the age of the working population, the population growth (or decline), and the migration flows are factors which are highly influencing the development and competitiveness of a region.
- The innovation capacity of a region. The quality of human resources is the major factor behind the invention and diffusion of technology and it is a pre-condition for increasing the capacity of a given economy to absorb new innovations.

3 Enterprise environment and networks

The milieu or environment can be defined as a territorial system, which is opened to the outside and which integrates know-how, rules and relationship capital. It is linked to a group of actors and to both human and material resources. Networks are a key element in the creation and development of local environment, as they interconnect the different actors involved in the development of the region. The quality and the type of the network will affect the capacity of regional actors to react adequately to the external stimuli.

Networks can be of different type. Indeed, they can be either formal (business network structures, institutional networks) or informal. They can have a production, information sharing or knowhow transfer finality or a mix of the three. Anyway, they are the conveyors between the firms and the environment they are in touch with.

Information and know-how sharing are both tremendously important as they influence the capacity of actors to:

- identify the changes in the market environment;
- adapt their behaviour to the identified changes;
- improve the collective learning process;
- formulate new projects and new solutions;
- create new resources.

When we speak about institutional networks, we think about all the institutions/actors/partners with whom a firm develops relations/partnership. It is for example public administration, financing institutions, education system, other enterprises, service to enterprises, professional institutions, etc. An active institutional network will allow enterprises to find funds, to integrate and develop innovation, to benefit from training, to acquire info, etc.

Business network structures can help the firms in some of the following ways:

- raising competitiveness;
- creating new business opportunities;
- developing and marketing new products;
- establishing new agents and distributors in new markets;
- pooling of individual products into complete product range.

The informal networks are made of informal personal relations developed by an entrepreneur in the region of his activity. They allow developing solidarity mechanisms which strengthen the effect of formal networks. Despite the fact that it is very difficult to measure this phenomenon, it has to be taken into account and built upon. The combination of these different types of networks will produce an environment which will eventually determine the competitive status of the region. In particular, networking is important for innovation and diffusion of innovation.

4 Innovation/Regional innovation systems

“Innovation is a means by which less favoured regions can move immediately alongside the developed regions, not by attempting to imitate what the latter have already achieved but by trying to lay the groundwork, in accordance with their own features and requirements (...), for adapting to the conditions of competitiveness in a global economy.” Green paper on innovation, EC, 1995

1. It is widely accepted today that the ability of regional economies to withstand competition and to adapt to technological change is related to their capacity to innovate. Indeed, innovation and flexibility are the keys of success in order to cope with globalisation. By saying innovation, we do not mean high-end technologies but we think of any improvement which could be introduced at the level of local firm production, marketing, management and organisational systems. This know-how once it develops in the right environment (networking, availability of information, involvement of actors, etc.) becomes a competitive advantage.

Indeed, the innovation process is done in two steps: conceptualisation and realisation. This process in turn triggers new opportunities for innovation projects. In local production systems, innovation is rarely the result of one actor but it is the result of a multifunctional innovation network. An innovation network is made up of heterogeneous actors such as public labs, technical research centres, universities, enterprises, financial institutions, public authorities, etc.

The elements characterizing an innovative region are not given as such but can be induced by the authorities by developing a true regional policy. Some of the recommendations for developing an innovation system are:

- To involve the local actors and to develop/renew immaterial regional resources (know-how, specific technology, rules, principles of confidence and reciprocity, etc.).
- To stimulate synergies (interactions, networks, etc.) and learning process between the local actors. This means the development of both the proximity advantages and the collective capacity for changing (consensus, anticipations, etc.), i.e. development of change management. This is essential for the innovative environments in order to compensate the lack of economies of scales and the transaction costs.
- To keep permanently in touch with the technology and market environment (extra territorial networks). This means to obtain information about markets and technologies, canvass, management, technology transfers, labour training, opportunities for financing innovation and risk.

2. Technological side of the innovation and development of knowledge intensive activities are high on the regional development agenda. Several typologies of regional innovation systems (RISs) can be distinguished according to their governance or business innovation dimension. From a governance point of view, there can be three modes of technology transfers.

The first ones, grassroots RISs are characterised by local initiatives, diffuse fundings (banks, local government, chambers of commerce), applied and near market research, low level of technological specialisation and local coordination. The second ones, network RISs, can be initiated at several levels (local, regional, federal, or governmental). The funding is generally coming from banks, firms, and government agencies. The research is mixed, aimed at both applied and pure technology with flexible specialisation. The third ones, dirigiste RIS are initiated, funded and animated typically by central governments. The research is rather basic or fundamental, with typically high level of specialisation, to be used in larger firms/multinationals in or beyond the region in question.

Another typology divides the RISs according to their business innovation dimension. First, localist RISs, have few large firms, either indigenous or multinational. The research reach of individual firms is not great but there is a reasonably high degree of association among entrepreneurs and between them and local policy makers. Second, the interactive RISs, have a balance between large and small firms, a mix of public and private research institutes reflecting the involvement to promote the innovation base of the economy of both large firms and local authorities. Third, globalised RISs, dominated by multinational enterprises, often supported by clustered supply chains. The research is mainly internal and highly private, rather than public.

The new technologies are then diffused or not in the region. The public sector plays a vital role in developing regional innovation systems. Indeed, it builds systemic linkages that transfer knowledge and innovation within and beyond the regional economy. It achieves that by developing social capacities, networks, and institutional thickness and by assisting the functioning of untraded interdependencies.

3. Evidence shows that there is a triangular relationship between high technology growth, talent and diversity. Indeed, places with high level of opportunities and low entry barriers attract talents from everywhere. In turn, this environment made of high levels of talents attracts high technology industries and so on.

5 Governance and institutional capacity

A lot of studies showed that there is a clear link between regional competitiveness and the nature of economic development governance and regional capacity.

The trend in the EU and OECD has been to shift from traditional “top-down” policies towards a more “bottom-up” (or endogenous) approach to economic development and employment creation. The consequence is that responsibilities are now increasingly shared among different levels of government, as well as with private and civil society actors. The underlying principle to this approach is that greater involvement and co-ordination among them will improve the design and implementation of public policy. Furthermore, measures are more likely to be long lasting and more equitable if they are built on consensus through responsibility sharing and local empowerment. Public/private partnerships are intended to avoid overlapping and undue competition among similar authorities, while ensuring that common macro-regional concerns in functional areas are addressed. This school of thought that has been labelled as New Public Management (NPM) emphasises the need to reorganise the traditional bureaucratic structures towards greater delegation, desegregation and contracting-out into the private sector. Some of the most relevant examples are the public-private partnership for infrastructures or services

provision developed on the regional level or the functioning of structures aimed at regional development such as the regional development agencies (RDAs).

Moreover, regional economic development is not based on particular single projects but on long-term integrated development programmes and the use of synergy and complementarily effects of individual measures. Development programmes are designed on the basis of a strategic plan.

Each strategic plan is specific for a region and cannot be copied per se. Indeed, a strategic plan is based on the identification of potentials and analysis of restraints (SWOT analysis, strategic analysis), which are unique for each region. From there, one can deduce the development objectives, and consequently, determine the means and instruments required/available, i.e. the formulation of a regional strategy optimizing the allocation of resources and creating synergetic effects.

Principles of good governance and institutional capacity seem to be highly relevant for Central and East European Countries, as recent empirical evidence identified that once a certain degree of macroeconomic stabilization has been accomplished, the institutional environment becomes the more important determinant of growth.

6 Sectoral structure

"An unfavourable sectoral structure together with a lack of innovative capacity seems to be among the most important factors underlying lagging competitiveness..." and "...the extent to which activity is concentrated in advanced, high value-added sectors as opposed to more basic, low value-added sectors may be at least as important as differences in the division of employment between broad sectors." European Commission's Sixth Periodic Report (1999).

The industrial structure of a region will influence competitiveness in the fields of productivity per capita and wealth production. Indeed, high value-added sectors will have more influence on regional growth and regional GDP than low added-value sectors. In other words, the competitiveness of a region will be influenced by the productivity of its sectors of activity. The sectors themselves will be influenced by the intra-sector productivity. For example, there can be large differences between high-tech sectors and traditional metal-bashing activities. Another example is the service sector, where one can have tourism services not associated with particularly high productivity levels or, on the opposite, financial and business services characterized by the highest productivity. This is also true for rural regions where one can find regions with low agriculture productivity and high employment or, on the opposite, regions with high levels of agriculture productivity.

It is also important to stress that evidence points out the limits of comparative advantage development. Indeed, the evolution of technology, production and exports appears to be mainly driven by the pattern of structural changes, rather than by comparative advantages. Therefore, in order to achieve higher economic and employment growth, it is important for a region to be active in the "right", faster growing industries, rather than in the fields of greater relative specialization.

7 Type of enterprises

1. Both theory and practice show that firm growth is inversely related to firm size and age. Moreover, a firm's growth in terms of employment and/or turnover is positively related to an increase in the firm's GVA (gross value-added). Consequently, regions where activity is

mainly situated in large mature firms show a relatively lower GVA growth path (hence lower growth path in GVA per capita) than regions with buoyant SME activity. The experience in the former accession countries might serve as a good illustration of this.

2. The competitive status of a region will be determined by the level of integration of the firms in the region. Indeed, a firm can choose a region, either in order to optimise the factors of production (low level of integration) or to benefit from the externalities due to the multi-level development produced by the commitment of the different regional actors. In this scheme, the firms themselves become actors of regional development and creators of regional environment.

3. It will be also good to repeat an evidence and that is that the competitiveness of a region will depend upon the competitiveness and dynamism of its businesses, which itself directly depends upon a climate (regulatory, institutional, etc.) conducive to investment, innovation and entrepreneurship.

8 Infrastructure (broad understanding)

“..., developing regional competitiveness depends on modernizing and diversifying the productive structure once a sufficient endowment of physical infrastructure and human capital is attained.” Third report on Economic and Social Cohesion (2004).

1. The above quotation is indicating that the notion of infrastructure goes far beyond the usual understanding of infrastructure (transport and communication). Indeed, it includes concepts such as territorial infrastructure, social infrastructure, knowledge infrastructure, etc. This understanding derives from the fact that the EU notion of competitiveness incorporates values such as:

- effectively targeted social protection;
- quality of the natural environment;
- quality of healthcare;
- social services;
- quality of life;
- etc;

which are all determinants of the well-being of the population, a notion associated to the definition of regional competitiveness. Therefore the infrastructure favouring these values is certainly one of the determinants of regional competitiveness, independently of the fact that there is an undeniable economic ratio underlying their existence.

2. Regional success and decline increasingly result from an uneven distribution of capacity to valorise local collective goods. Therefore, the development of the different physical infrastructure mentioned here below implies that there is a clear policy and planning structures for developing the region, i.e. the existence of a territorial/spatial development policy based on prospective approach.

Transport infrastructure

The importance of transport infrastructure for improving the competitiveness and the accessibility of regions is widely recognised. Indeed, networks and transport systems have a crucial role to play in terms of assisting economic development in the regions, as regions with better access to markets are likely to be more productive and more competitive than others. In

fact, economic actors need reliable and reasonably priced access to markets and citizens need to have access to a good public transport system. The objective for regions is, in this sense, to remove the obstacles and “missing links” that enterprises and travellers face and to improve the quality of the transport systems and transport infrastructure in general. In the EU, this necessity is widely taken into account in the policy of structural funds.

One can also remind that the problematic of transport infrastructure is not only a regional problematic but also an intra-regional, national and international one, which results in “transport corridors” policies. For example, in the EU, this can be illustrated by the Trans-European Networks-Transport (TENs-T), which has the potential for opening up the European territory by generating new opportunities for the peripheral regions as well as addressing the problem of missing intra-European links.

Telecommunication and ICT infrastructure

The rapid development of telecommunications and the information society (IS) has opened vast new possibilities for economic development. It has enlarged the commercial options for companies and may help peripheral areas to keep employment and to develop new areas of activity (on-line electronic commerce for instance) less dependent on the localization factors. An efficient telecommunication infrastructure is a basic condition for these types of services and the general access to the Information Society, even if it is not the only one. Other actions in this priority area also include the promotion of e.g. new telecommunication and/or information technology services (such as for example the broadband lines). Indeed, electronic commerce (ecommerce) is expanding rapidly and forces firms to rethink their business processes, to set up new forms of organizations, new types of markets and different kinds of business relations. That is, the existence of the information society changes structurally the competitiveness of firms and ways of doing business. In addition to that, information and communication technology (ICT) is at the base of the knowledge economy, which boosts both innovative capacity and competitiveness. Moreover, access to ICT is especially important for peripheral and remote regions and those with geographical handicaps not only because its existence reduces the significance of distance and the time required to reach markets, but also because its no availability is almost certain to damage their development and competitive prospects and to deter businesses from locating there.

Energy infrastructure

The availability of energy in a region, the flexibility of supply in terms of the diversity of different sources and high-degree of self-sufficiency are important for regional development. Indeed, it defines the limits to growth and employment, the type of output produced, the consumption of energy per unit of output, the capacity to reduce environmental pollution, hence it influences the economic development path of the region. Therefore, access to clean, reliable and competitively priced energy sources is considered to be an important factor of regional competitiveness. This objective leads, among others, to policies of liberalisation of markets (i.e. avoiding situations when monopoly suppliers tend to be prevalent), improvement in the distribution networks and availability of supply in peripheral regions.

It is also important for a region to pursue a portfolio policy when it comes to types and origins of energy used in order to increase security of supply. For example, the Commission has set a target of doubling the share of renewable sources of energy (such as biomass, wind and solar energy as well as hydro-electricity) in overall energy consumption in the EU to reach 12% by 2010. In the same logic, a more rational use of energy should be encouraged.

Infrastructure for water treatment and waste disposal.

If the growth of an economy has damaging effects on the environment, it will ultimately limit its development. Consequently, the availability of resources and the measures taken to protect the environment are factors which determine the long-term competitiveness of a regional economy.

One of the key natural resources to protect and manage is water. Indeed, in addition to the fact that water is a sine qua non condition for life on earth, it is also a key element of economic development. Indeed, water is heavily used by both agriculture and industry and for activities such as electricity generation and tourism. Therefore, it is very important to increase both the efficiency with which water reserves are used and the one of waste water treatment of. Given that most of the population lives in towns and cities, it is also important to pay as much attention to the damage that household waste disposal can do to the environment, as to the one caused by industry and agriculture. Moreover, re-cycling activity, in addition to resource conservation, can have net positive effects on employment and economic activity.

Therefore, putting in place the necessary infrastructure to treat water and dispose of waste is (in addition to the use of cleaner technologies by industries and development of eco-industries) essential to reduce the pressure on environment.

Social and quality of place infrastructure

Social infrastructure including, in particular, schools, colleges and hospitals, is also a factor affecting competitiveness. Indeed,

- Availability of high quality social infrastructure can influence decisions of where to locate investment and set up business. More precisely, such infrastructure is becoming an important part of the development policy of regions seeking to attract high-value added, knowledge-based activities.
- Social infrastructure is important in maintaining population in the region. Indeed, it can keep people from moving away from their region and provoke an imbalance of the demographic and social structure of the region⁷.
- Social infrastructure, together with environmental conditions is a key determinant of the quality of life in any region.
- Social infrastructure maintains social cohesion in a region and allows to fully use the human potential available in a region.

Knowledge infrastructure

Knowledge and access to it has become the driving force for growth in advanced economies like the EU. Know-how and intellectual capital, much more than natural resources or the ability to exploit abundant low-cost labour, have become the major determinants of economic competitiveness since it is through them that economies increase their productive efficiency and develop new products. In other words, the quality of knowledge infrastructure determine innovation, which is itself a determinant of competitiveness

In addition to that, knowledge infrastructure influences:

- social cohesion of a region. Indeed, it has been proved that there is an inverse relation between the level of qualification and unemployment, or in other words employment prospects rise with level of education. Moreover, it makes the region a good place to live, as it allows the population to nurture its aspirations and achieve personal fulfillments.
- the typology of the industries installed in the region⁹. Indeed, the horizontal development and diffusion of knowledge allows to maximise the use of human potential available in a region, while the human potential will influence the typology of the industries and sectors of activity present in the region.

Business infrastructure (hard infrastructure)

Setting up or upgrading business infrastructure can have a positive influence on local business development. This notion is very comprehensive and can address the issues of industrial lands, business parks, technology parks, incubators, water and sewer facilities, etc. A well developed business infrastructure makes a region more attractive, as it reduces the time between the moment a firm decides to set up an operation and its effective beginning, can highly influence the costs of an operation, provides a framework for business development,

etc. It can determine not only the decision of an operator to invest but also the type of industries which will be developed in the region.

Institutional and business support related infrastructure (soft infrastructure)

By saying institutional and business support related infrastructure, we have in mind any institution or structure which promotes the development of local enterprises. They are part and actors of what is called the environment of a region. They can take the form of services to enterprises, financing institutions, professional associations, chambers of commerce, etc. The existence of such an institutional framework is a condition for regional development and competitiveness, but it is not a guaranty of success. Indeed, “magic” will happen according to the mix of other factors determining the environment, including the existence and effectiveness of networks.

9 Typology of regions

The typology of a region will influence the development strategy/path and therefore the competitiveness of the region. For example, a region can be:

- a reconversion area, where the natural resources are disappearing with both the know-how
- and the collective memory;
- a territory dominated by a big group specializing in a given segment in technology where
- the SMEs are sub-contractors;
- a territory dominated by services and public service employment;
- a depressed rural area;
- a rural area with agro-industry;
- a cosmopolitan agglomeration;
- etc.

Moreover, a region can be typologised according to its development path. Indeed, it can take some of the following forms:

- development by agglomeration of activities, where firms are developing because of the advantages provided by the concentration of human resources and activities.
- development by specialisation, where the economic tissue is dominated by one industrial
- activity or one product. In this situation, the region grows by developing similar or complementary activities.
- development thanks to the production of a unique product typically related to the region
- (e.g. Great wines production);
- etc.

This will also determine the competitiveness of a region.

10 Internationalisation and nature of foreign direct investment (FDI)

The role of multinationals in influencing the competitiveness of regions is not to be demonstrated anymore. Indeed, foreign direct investments (FDI) bring transfers of technology, innovation, quality standards, and know-how (product, management, marketing, etc.). According to whether the investment is horizontal or vertical, multinationals can open

(to a higher or lesser extent) a region to international markets. Moreover, it leads very often to clusters of highly competitive and dynamic manufacturing companies. The most striking example of this is the dynamic economy of Ireland, which developed its competitiveness on a policy promoting FDI. The result was the establishment of foreign-owned manufacturing companies, particularly in electronics and pharmaceuticals, and more recently, internationally traded services such as financial services and call centres.

Nevertheless, the level of technology and know-how brought by multinationals will be determined most of the time by the environment surrounding its regional location and its willingness to integrate in the existing regional environment. Indeed, several studies identified position of the region in the fields of innovation and technology. In summary, inward investment can generate regional competitiveness by importing innovation, technology, know-how and clustering activities, nevertheless these investments very often occur where such advantages already exist. Moreover, the level of technological diffusion on the regional level depends very much on whether a multinational has chosen its location uniquely on the basis of production factor costs or because of the territorial externalities produced by a region.

11 Geographical location

The geographical location of a region plays an important role when it comes to its development and competitiveness path. Indeed,

- a region located near a growth pole or metropolis will benefit from the spillover effect generated by the neighbouring growing economy;
- a region located on a transport corridor will have competitive advantage on the others;
- peripheral regions and regions with geographical handicaps have an important competitive disadvantage;
- border regions can have a competitive advantage;
- etc.

Moreover, climate conditions can have a considerable negative influence on the competitiveness of regions. One can think of fires provoked by heat, draught, flood, violent storms, etc.

12 Attractiveness for investments

It seems trivial to stress that a region in order to grow and to become competitive needs investments, be it foreign or domestic. Therefore the more attractive a region is for investors, the more competitive it will be. Indeed, a potential investor before investing will have to make a trade-off between different potential locations. The decision will be made taking into account the mix of criteria such as distance and connection to markets, availability of suppliers, infrastructure, socio-economic environment, surrounding regulative framework, taxes framework, labour cost, and skills and matching of the workforce, quality of life, public subsidies, etc.

European practice shows that price factors (e.g. cost of labour, tax rate, etc.) are not playing a decisive role in most of the location choices. Actually, these factors start to play a role when it comes to the location decision only once other non-price factors (infrastructure, adequate labour, markets, agglomeration externalities, innovative environment, technological spillovers, etc.) are considered to be equal between the different locations. Therefore, it does not make much sense for a region to choose a low price factor strategy if the region has no non-price factors attractive for direct investments.

There are also some strong deterrent for investments such as unstable and inconsistent legislative and regulative framework, social and political instability, practices preventing

business development and entry barriers (administrative, legislative/regulative, political, mafia, others).

Finally, we preset the seven main factors according to reports of competitiveness at European level in 21. century. In general these factors are used on NUTS1 and NUTS2 levels.

Main factors of regional competitiveness						
Infrastructure and accessibility: Basic infrastructure – road – rail – air – property Technological Infrastructure – ICT – telecoms – internet Knowledge infrastructure – education facilities Quality of Place – housing – natural surroundings – cultural amenities – safety	Human resources: Demographic trends – migration of skilled workers – diversity High skilled workforce – knowledge-intensive skill	Productive environment: Entrepreneurial Culture – low barriers to entry – risk taking culture Sectorial Concentrations – balance/dependency – employment concentration – high value-added activities Internalisation – exports/global sales – investment – business culture – nature of FDI Innovation – parents – R&D levels – research institutes and universities – linkages between companies and research – spill over effect Governance and institutional capacity Capital availability Specialisation Nature of competition	Knowledge Capital: Working population, including age structure Education level of working population Personnel employees in managerial, professional and technical occupations Personnel employees in R&D Personnel employed in higher Education establishments Employment in knowledge-based sectors	Innovation Capacity: New business registration rates Number of HQs Number of business in knowledge-based sectors R&D expenditures in Government R&D expenditures in Higher Education establishment Amount of venture capital	Knowledge Innovation Process Outputs: Number of parents registered GDP Labour productivity Value of exports	Knowledge Economy Outcomes: GDP per capacity Weekly (monthly or annual) earnings Unemployment rates Household incomes

2.5 Measuring of regional competitiveness

The standard or common concept of competitiveness has been partly developed in order to serve as a widely accepted theoretical definition which can be measured and also be used by regional development policies. (Gardiner – Martin – Tyler 2004, Lengyel 2003). Competitiveness is intimately bound up with successful economic development.

The standard definition refers to “relatively high income”. This can be measured by means of the per capita GDP and the GDP growth rate. A high employment level is in turn indicated by the rate of employment. These two indicators can be measured independently from one another, but as is well known the per capita GDP can also be expressed as follows (EC 1999, Lengyel 2004):

$$\frac{\text{GDP}}{\text{total population}} = \frac{\text{GDP}}{\text{employment}} \times \frac{\text{employment}}{\text{working – age pop}} \times \frac{\text{working – age population}}{\text{total population}}$$

The first fraction on the right-hand side of the formula is approximately equal to labour productivity, the second to the rate of employment and the third fraction, the age distribution of the population. Given the standard definition of competitiveness, no unique indicator of regional competitiveness can be found. It is interpreted rather as a combination of closely connected, well-measurable and unambiguous traditional economic categories:

- per capita GDP of the region (otherwise regional growth),
- labour productivity of the region,
- employment rate of the region,
- economic openness of the region (exports and imports).

Hence the substance of regional competitiveness: the economic growth in the region, which growth is generated by both a high level of labour productivity and a high level of employment (EC 2001). In other words, competitiveness means economic growth driven by high productivity and a high employment rate. The standard concept of competitiveness basically expresses balanced regional economic growth. If the employment rate is high, then sooner or later the *living standard* will also increase.

Measuring regional competitiveness has been traced back to four related economic categories: income generated in the region, labour productivity, employment rate and the openness. The notion of competitiveness obtained in this way cannot be used, however, to identify factors responsible for regional competitiveness or areas which are to be strengthened or developed by regional development policies and programmes for improved competitiveness. The *pyramidal model of regional competitiveness* seeks to provide a systematic account of these means and to describe the basic aspects of improved competitiveness (Gardiner-Martin-Tyler 2004, Lengyel 2000, 2004).

Factors influencing regional competitiveness can be divided into two groups of *direct* and *indirect* components. Of particular importance are programming factors with a direct and short-term influence on economic output, profitability, labour productivity and employment rate. But social, economic, environmental and cultural processes and parameters, the so-called ‘success determinants’, with an indirect, long-term impact on competitiveness are also to be taken into account (Jensen-Butler 1996).

Three levels can be distinguished with regard to the objectives of regional development programming and the various characteristics and factors influencing competitiveness:

- *Basic categories* of regional competitiveness (*ex post* indicators; revealed competitiveness): these categories measure competitiveness and include income, labour productivity, employment and openness.
- *Development (programming) factors* of regional competitiveness (*ex ante* factors; improving competitiveness): factors with an immediate impact on basic categories.

These can be used to improve regional competitiveness by means of institutions in short-term programming periods.

- *Success determinants* of regional competitiveness (social and environmental conditions; sources of competitiveness): determinants with an indirect impact on basic categories and development (programming) factors. These determinants take shape over a longer period of time and their significance reaches beyond economic policymaking.

When characteristics determining competitiveness are placed on a chart one obtains the 'pyramidal model' of regional competitiveness (*Figure*): the components of long-term success are to be found in the base, the middle layer is constituted by the development (programming) factors, the basic categories included in the standard definition of revealed competitiveness are located one level higher, while the standard of living and welfare of the region's population, the ultimate objective, forms the peak of the pyramid. Competitiveness depends on a wide range of factors and conditions. The *five programming factors* (priorities of the regional development strategy) of pyramidal model underlying competitiveness included in the Sixth Periodic Regional Report of the EU (EC 1999), however, exceptionally significant (Lengyel 2003, 2004). These development factors shape, to varying extent, economic output, labour productivity as well as employment.

Improving individual programming factors forms the object of regional policies. They are likely to improve the competitiveness of regions directly and in the short run by means of regional partners, local institutions.

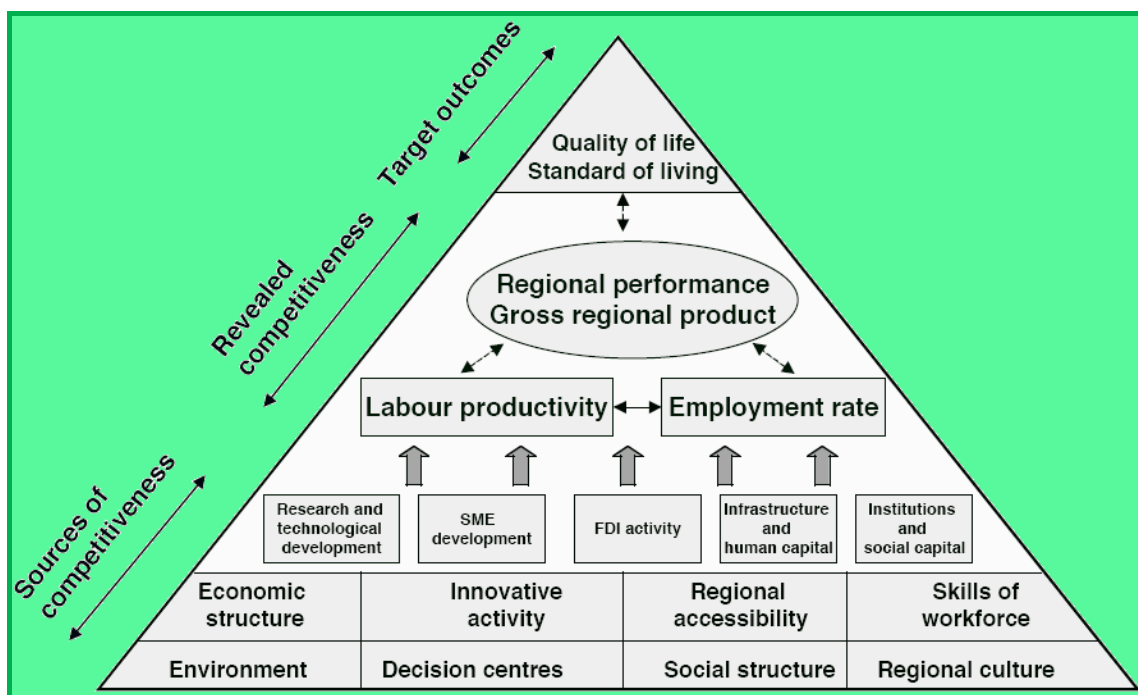


Figure: The pyramid model of regional competitiveness (Based on: Lengyel (2003), Begg (1999), EC (1999), Jensen-Butler (1996))

The social and economic factors essential for long-term successfulness form the base of the model, the determining factors are in the middle and the ultimate goal of higher standards of living and better quality of life for the population of the region is at the top.

- *Economic structure*: in successful regions most of the people employed work in business services and the processing industry, which are characterised by high added value, intensive multiplicative effects and great flexibility.
- *Innovation culture*: successful regions are characterised by extensive innovative activities, the effective diffusion of innovation, and a large number of patents. It should manifest itself not only in research and development institutions and universities; adequate business capacities and well-prepared, innovative small and medium-sized enterprises are equally important.
- *Regional accessibility*: successful regions are easy to access, with convenient transport connections and geographical location. Supplemented by the transport and communications infrastructure, these form an integral whole.
- *Skills of workforce*: in successful regions the proportion of qualified labour within the workforce is relatively high, which obviously requires an effective education system focussing on the actual demands of the labour market.
- *Social structure*: in successful regions a strong and thriving middle class emerges, which helps the region develop by virtue of its discerning demand and higher income.
- *Centres of decision*: successful regions are the regional bases of companies, they are units that undertake important activities of the enterprises operating there, and have decision-making competencies. New, innovative, strategic units are typically developed in the region or town where the company headquarters are found.
- *Quality of the environment*: successful regions possess high-standard settlement environment (public safety, pleasing urban architecture, good quality accommodation, efficient public transport etc.) and healthy natural environment.
- *Social cohesion of the region*: successful regions have an ability to manage conflicts, no matter whether they arise from economic structural change, dynamic economic growth or from inequalities among areas or communities within the region. The municipalities aim at cooperation and regional identity and local pride become stronger.

The indirect factors can be divided into two groups, one including those that determine short-term economic output (economic structure, innovation culture, regional accessibility, skills of work force) and the other including those that show their influence only in the long run (social structure, centres of decision, quality of environment, social cohesion of the region).

Following a different classification, we can put the indirect factors of the pyramid into five groups:

- a group of socio-economic activity (which includes the factors best expressing the economy and income potential of town): economic aspect, regional accessibility
- a group of functional and organisational innovation: innovation culture,
- a group referring to employment, intellectual resources and skills of the work force: skills of work force
 - a group relating to demographic factors and to the traditional and new functions of centres: centres of decision, social structure, social cohesion,
- and treating quality of environment as a separate category, as it does not fit into any of the previous groups clearly

Regional competition can be seen as a process in which certain groups try to influence the development of regional or local economy through local policies, in explicit or often implicit ways, in competition with other regions. Consequently, competitiveness of a region is made up of several components, which can be described with various indicators.

2.6 Typology of regions

In connection with the notion of competitiveness there are several well known typologies of regions available. In this paper we will emphasize three of them, which are the most important from the aspect of our research:

- the stages of economic development by Porter,
- the region types arising from the spatial aspects of the fordist and the post-fordist cycle,
- the typology of the University of Cambridge about the European regions.

As early as 1990, Porter claimed that instead of the theory of *comparative advantages*, the analysis of countries' international specialization must rely on that of *competitive advantages* (Porter 1990). Comparative advantages cannot explain the improvement of the economies of scale, companies' networks and strategic alliances, the flow of production factors among countries, the growing significance of technology transfer, and so on. Based on competitive advantages, he classified countries in three groups (Porter 1990, 2003):

- *Factor-driven economy* (low-income countries/regions): globally competing companies compete with cost advantages (available labour force with low wages) based on *cheap input costs* (natural resources, agriculture). The quality of technology is low and these economies purchase it from other countries (it derives from imports) instead of developing it.
- *Investment-driven economy* (medium-income countries/regions): modern technology is present also through foreign active capital. Advantages deriving from the economies of scale increase and productivity improve radically, however, the competitive advantages of global companies mainly come from *improving the effectiveness* of mass production.
- *Innovation-driven economy* (high-income countries/regions): companies not only purchase technologies but also develop new ones that mainly tied to producing *innovative products and services*. The success of companies undoubtedly depends on innovation and companies can only produce high wages with the help of innovative activities.

Until the 1970's territorial processes could be described by fordist features, while subsequently the regional processes of developed capitalist countries entered the postfordist stage constituting a new development phase. The extension of the fordist-postfordist cycles result in such region types that are based on today's predominant global tendencies, the up valuation of invisible property elements, the growing importance of knowledge, and so forth. Based on their role in knowledge-based economies and competitive advantages three region types can be distinguished (Lengyel 2003, 2005):

- In *neofordist regions* (relatively underdeveloped region type): region with low income, the traded companies operating in the region compete with cost advantages (e.g. cheap work force, tax discounts). The region's companies utilize purchased technology, usually with significant delays.
- In *knowledge transfer regions* (medium developed region type): region with medium income, technology transfer assumes a significant role, the region's traded companies buy developed technologies, but do not yet elaborate innovations. They usually create industrial parks.
- In *knowledge creation regions* (relatively developed region type): region with high income, the source of companies' competitive advantages lies in the creation of innovation results, they predominantly apply technologies developed by them.

Companies have successful collaborations with universities and finance complex research programs. In many places high tech companies are concentrated in scientific parks.

The University of Cambridge analyzed the factors underlying differences in regional competitiveness, which will be of direct use in ensuring the appropriate formulation of the EU cohesion policy 2007 to 2013. Their research separated three different types of regions along two dimensions: GDP growth/capita and population density (Martin 2003, 6-23. o.):

- *Space regions*: according to this typology these are the least developed regions with low GDP per capita, population density and attractiveness of FDI.
- *Regions as production sites*: regions with lower to medium income levels, which derive their productivity above all from cheap inputs. Determinants of competitiveness often lie in the field of basic infrastructure and accessibility, such as low-cost sites and availability of human resources at reasonable costs.
- a) *Regions as sources of increasing returns*: high growth regions with an average population density. A selected number of industries are an important source of wealth, this provides high and sustainable incomes for these regions.
- b) *Regions as hubs of knowledge*: regions with a higher population density and high and sustained GDP growth. These regions are open to international activities, they offer the best career opportunities that attract talented workers, and they bring about the best matches between labour demand and supply, and are characterized by high levels of R&D, entrepreneurship, new firm formation and patent activity.

As shown above, the most important typologies of regions segregate three types of regions (Figure). This fact encourages us to classify the Hungarian sub-regions into three relatively homogenous clusters.

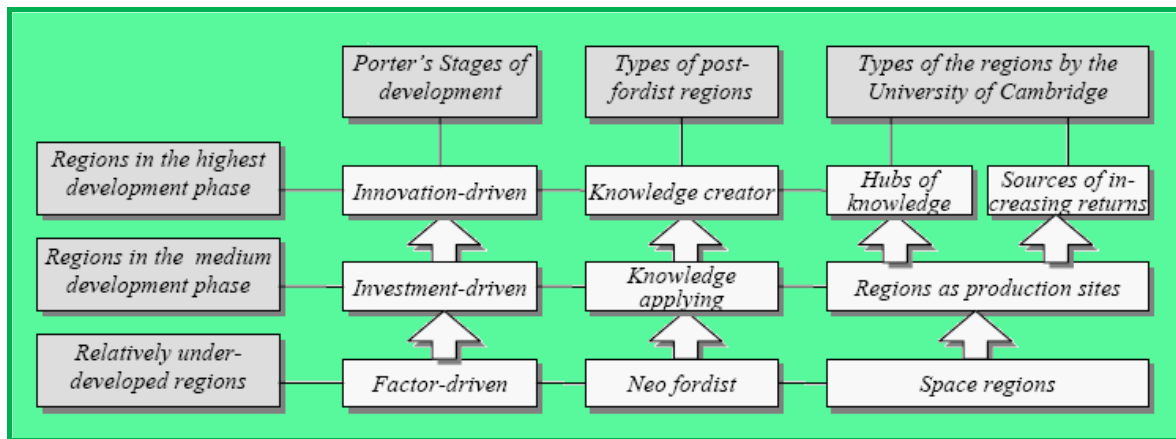


Figure: Comparison of the typologies (Creation on the basis of Lengyel 2003 and Martin 2003)

2.7 Indicators of measuring of regional competitiveness

In the table below it can see the indicators what are used by OECD, EC, University of Cambridge and Pyramid Model.

Indicators of OECD	Indicators of European Competitiveness Reports	Indicators of Reports of Regional Competitiveness by University of Cambridge	Indicators of Pyramid Model
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<p><i>Geographic</i></p> <ul style="list-style-type: none"> - Territorial grids; - Area; - Distance from the nearest urban centre. 	<p><i>Overall Competitiveness</i></p> <ul style="list-style-type: none"> - Gross Value Added - Labour productivity - Investment - Exports 	<p><i>Education & the workforce</i></p> <ul style="list-style-type: none"> - Fourth Grade Math & Reading Proficiency - High School Graduation Rate - Post-Secondary Degrees Awarded - Science & Engineering Degrees Awarded. - Worker Productivity 	<p><i>Income level</i></p> <ul style="list-style-type: none"> - Volume of taxable incomes per one tax-payer - Gross income serving as the basis of the personal income tax, per permanent population - Earnings from main activity/number of tax-payers - Entrepreneurial income/ number of tax-payers - Gross Value Added (GVA) per capita
<p><i>Settlement patterns</i></p> <ul style="list-style-type: none"> - Predominantly Rural regions; - Predominantly Urban regions; - Intermediate regions. 	<p><i>Labour Market</i></p> <ul style="list-style-type: none"> - Earnings - Employment - Unemployment - Claimant Count - Education 	<p><i>Technology & Innovation</i></p> <ul style="list-style-type: none"> - R&D Expenditures - Patents Issued - SBIR Awards 	<p><i>Labour productivity</i></p> <ul style="list-style-type: none"> - Gross Value Added per employer - Gross income serving as the basis of the personal income tax, per tax-payers - Profit before taxes per employer
<p><i>Demographics</i></p> <ul style="list-style-type: none"> - Total population; - Population by gender; - Population by age class; - Birth and death rates; - Migration rates; - Dependency ratios (youth, elderly and total). 	<p><i>Deprivation</i></p> <ul style="list-style-type: none"> - Income Support - Income Deprivation 	<p><i>Enterprise & Investment</i></p> <ul style="list-style-type: none"> - Venture Capital - Small Business Administration Loans - Business Starts & Closures 	<p><i>Employment</i></p> <ul style="list-style-type: none"> - Employment rate - Unemployment rate - Number of tax-payers per 1000 inhabitants
<p><i>Labour force</i></p> <ul style="list-style-type: none"> - Total labour force; - Labour force by gender; - Labour force by age class; - Participation rates. 	<p><i>Business Development</i></p> <ul style="list-style-type: none"> - Business Registrations - Entrepreneurship - Research & Development 	<p><i>Business Climate</i></p> <ul style="list-style-type: none"> - Tax Share 	<p><i>Global integration</i></p> <ul style="list-style-type: none"> - Income from export per inhabitants - Integration of the trade - Number of foreign tourism nights at public accommodation establishments per 1000 inhabitants - Number of domestic tourism nights at public accommodation establishments per 1000 inhabitants
<p><i>Unemployment</i></p> <ul style="list-style-type: none"> - Total unemployment; - Unemployment by gender; - Unemployment by age class; - Long-term unemployment (unemployed for one year or more); 	<p><i>Land and Infrastructure</i></p> <ul style="list-style-type: none"> - Transport - Industrial Property - Re-use of land 	<p><i>Transportation & Infrastructure</i></p> <ul style="list-style-type: none"> - Travel Time Index - Transportation Expenditures - Internet Access 	<p><i>Research and technological development</i></p> <ul style="list-style-type: none"> - Number of patents between 2000 and 2004 per 10000 inhabitants - Number of members of public body of Hungarian Academy of Sciences per 10000 inhabitants - R&D units per 100000 inhabitants - Number of scientists and engineers per 1000 inhabitants - Current R&D expenditures per 10000 inhabitants - R&D expenditures

			<ul style="list-style-type: none"> per 1000 inhabitants – Capital R&D expenditures per 1000 inhabitants
<p><i>Employment</i></p> <ul style="list-style-type: none"> – Total employment at the place of residence; – Employment at the place of residence by gender; – Total employment at the place of work; – Employment at the place of work by main economic activities. 		<p><i>Quality of Life & Social Capital</i></p> <ul style="list-style-type: none"> – Charitable Giving – Housing Affordability – Arts Organizations – Air Quality Index – Crime Rate 	<p><i>Small and medium-sized enterprises (SME-s)</i></p> <ul style="list-style-type: none"> – Number of active companies and partnerships per 1000 inhabitants – Number of active small businesses (10-49 employers) per 1000 inhabitants – Number of active corporations with legal entity per 1000 inhabitants – Number of active small businesses (10-49 employers) with legal entity per 1000 inhabitants – Proportion of partnerships from the active enterprises – Owners' equity of the companies per 1000 inhabitants – Subscribed capital of the companies per 1000 inhabitants – Balance sheet total of the companies per 1000 inhabitants
<p><i>Production</i></p> <ul style="list-style-type: none"> – Total GDP; – Gross Value Added by main sectors. 			<p><i>Foreign Direct Investment</i></p> <ul style="list-style-type: none"> – Staff number of enterprises with foreign direct investment per 1000 inhabitants – Owners' equity of enterprises with foreign direct investment per 1000 inhabitants – Foreign direct investment per inhabitant – Net revenue of enterprises with foreign direct investment per 1 inhabitant
<p><i>Income</i></p> <ul style="list-style-type: none"> – Personal income. 			<p><i>Infrastructure and human capital</i></p> <ul style="list-style-type: none"> – Number of university or college graduate employed per 1000 inhabitants – Proportion of leading intellectual employees from the employees – 18-X years old population, with at least secondary school general certificate, as a percentage of the

			<ul style="list-style-type: none"> - same age group 25-X years old population, with university, high school, etc. diploma, as a percentage of the same age group - Telephone main lines per 1000 inhabitants - ISDN-lines per 1000 inhabitants - Number of dwellings built per 1000 inhabitants - Number of building permits per 1000 inhabitants
			<p><i>Institutions and social capital</i></p> <ul style="list-style-type: none"> - Proportion of disability pensioners below retirement age from the 45-59 years old population - Annual average internal net migration per 1000 inhabitants, 2000-2004 - Number of pensioners, retirement provisioners per 1000 inhabitants - Active non-profit institutions per 1000 inhabitants - Full-time students of higher educational institutions per 1000 inhabitants
			<p><i>Economic structure</i></p> <ul style="list-style-type: none"> - Proportion of active companies in real estate, renting and business activities from all active companies - Proportion of employees in agriculture from all employees - Proportion of employees in services from all employees - Proportion of non-manual workers from all employees
			<p><i>Innovative activity</i></p> <ul style="list-style-type: none"> - Registered users of work-place, tertiary educational and other libraries per 1000 inhabitants - Number of lecturers of higher education institutions (by seat of institutions) - Number of lecturers of higher education institutions (by sections placed out)

			<p><i>Regional accessibility</i></p> <ul style="list-style-type: none"> - Complex regional accessibility indicator - Domestic supplier accessibility indicator - Multi accessibility indicator
			<p><i>Skills of work force</i></p> <ul style="list-style-type: none"> - Employees working at the residence with at least secondary school general certificate per 1000 inhabitant - Employees working at the residence with university, high school, etc, diploma per 1000 inhabitants - Average number of school grades
			<p><i>Social structure</i></p> <ul style="list-style-type: none"> - Population aged 60 and over as percent - Population aged 0-18 as percentage of permanent population - Live births/deaths - Vitality index - Number of single person households per 1000 inhabitants - Share of inhabitants living in settlements with population density over 120 - Proportion of central settlement's inhabitants from the sub-region's inhabitants
			<p><i>Decision centres</i></p> <ul style="list-style-type: none"> - Number of active small and medium size corporations with legal entity - The sum of the company's owner's equity in the sub-region
			<p><i>Environment</i></p> <ul style="list-style-type: none"> - Number of discovered publicly indicted crimes - Number of economy related discovered publicly indicted crimes - Number of general practitioners per 1000 inhabitants - Number of places of clubs for the aged providing day-time care per 1000 inhabitants aged 60 and over

			<i>Regional identity</i> <ul style="list-style-type: none"> – Arrivals per 1000 inhabitants – Departures per 1000 inhabitants – Proportion of employees working at residence from the daily commuters – Proportion of intellectual employees working at the residence from the daily commuter intellectual employees – Promotion of daily arrival commuters from the daily departure commuters
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3. Concept of territorial competitiveness

This concept of competitiveness aims to achieve a local specialization that enables different territories to cooperate in a context of general development.

Territorial competitiveness means:

- taking the area’s resources into account in a bid for overall coherence;
- involving different players and institutions;
- integrating business sectors into an innovation dynamic;
- cooperating with other areas and linking up with regional, national and European policies as well as with the global context.

Our concept of territorial competitiveness has gained ground in academic, policy and practitioner circles. In particular, regional competitiveness has generated a large literature. These are described formerly. But the territorial competitiveness differs to regional competitiveness. This difference offers to approach. According to dynamism and spatial analyzing the territorial determination oversteps on the regional competitiveness. The base of regional competitiveness is the incoming and the product contrary with territorial competitiveness where the base is the innovate process in sustainable development.

Sum up, the territorial competitiveness diverges from regional competitiveness so that applies the methods of analysing but it considers in process the information concern this information will be jointed to challenge sustainable development.

Territorial competitiveness is an integrated and proactive approach to shaping the future of territories, regions and larger geographies – to some degree it can also be referred to as spatial planning. It goes beyond traditional regional policy as it brings together economic, social and environment opportunities and concerns as well as other factors which influence where activities takes place, how different places function and are connected, and what conditions are offered for living and doing business.

Territorial competitiveness strategies can help exploring potentials for economic growth and jobs and at the same time support an enhanced quality of life by helping to meet the challenge of sustainable development.

3.1 Challenge of territorial competitiveness in sustainable development

Sustainable development is a socio-ecological process characterized by the fulfillment of human needs while maintaining the quality of the natural environment indefinitely. The linkage between environment and development was globally recognized in 1980, when the International Union for the Conservation of Nature published the World Conservation Strategy and used the term "sustainable development." The concept came into general usage following publication of the 1987 report of the Brundtland Commission — formally, the World Commission on Environment and Development. Set up by the United Nations General Assembly, the Brundtland Commission coined what was to become the most often-quoted definition of sustainable development as development that "meets the needs of the present generation without compromising the ability of future generations to meet their own needs." Although commendable, this definition is not operational and has created much antagonism and cognitive dissonance.

The field of sustainable development can be conceptually broken into three constituent parts: environmental sustainability, economic sustainability and social-political sustainability.

Sustainable development policies encompass three general policy areas: economic, environmental and social.

3.2 Measuring of territorial competitiveness

However, there is a danger that competitiveness at a territorial level becomes a conceptual chimera. The essential problem is that territorially based actors and agencies seek to position and maintain the utility of their regions and sub-regions by reference to a set of measures and indicators that are conceptually suspect and often empirically weak. The degree to which territory compete depends on a manifold set of factors. But, our research experiences give a heading toward main factor. Moreover, a region's most important resource is its human capital. In order for European Union to move forward and be strong, we must invest in EU, ensuring that no member of society is left behind in the knowledge-based economy. Although most people know how to read, the real question is whether their reading and writing skills are such that they are able to meet the challenges of living and working in society and the knowledge-based economy. Globalization and new technologies have brought about profound changes in the workplace. These factors have set more demands, as well as changing and rising expectations on employees.

In the new economy, where jobs are driven by technology and information, lifelong learning is key to ensuring that EU continues to be productive, globally competitive and economically secure. The success of territories in the knowledge-based economy depends on the ability of its workforce to respond to new challenges and pursue lifelong learning opportunities.

Literacy has become an important issue for business and labour. Workplace literacy refers to the essential skills that people need at work, such as reading, writing and numeracy. It also includes critical thinking and problem solving. EU with strong literacy skills have better paying jobs and are less likely to become unemployed than those with lower literacy levels. The opportunity to use literacy skills on the job can actually help people maintain and enhance these skills, long after they have completed their formal education.

In the knowledge-based economy, territories of EU's success depend on the ability of its workforce to respond to new challenges. This is challenge that no single government can achieve alone. To achieve this goal, we must continue to work together with other

governments, literacy partners, and business and labour groups, to strengthen literacy and other essential skills that are the foundation of lifelong learning.

In several project we have already manifest the influencing of human resources to development. The human potential affects to all factors of territorial and regional competitiveness. Namely, what territory would be development able which has qualified labour force. The status of human resource determines the establishment of enterprise because it needs the creative work-force. If on the labour market are located qualified employees to challenge of cognitive society the level of innovation is rise-able. But the local government has responsible control of territory or region so that the centre of decision making has necessity qualified human resources. As well, the integration of firms would be realisation on the modern territories where it can find the usable work-force. Coming of FDI also depends the human potential because this influences the attractiveness of territory.

To sum up, we must enhance the approach of human resources on the territories because in the cognitive society it influences the development. The concept of territorial intelligence can joint to sustainable development if it prefer the base of territorial competitiveness. Now there is the analysing and enhancing of human factor.

3.3 The human resource enhancing

Each research of human resource developing starts with surveying of situation. This is a cardinal point in these activities. The concept of territorial intelligence will give a complex method to development processing. Here, we would like present the patterns of indicators and definitions of these what needs the measuring of territorial competitiveness.

Surveying of human environmental

The base of investigation is the household. The definition of household: The living (dwelling) unit is the basic unit of survey or rather the non-institutional household found there. Household is the community of people sharing their living expenses partly or in gross together so the members of the same community considering income and consumption. Those people belong to the members of a household, who live in the flat by their lifestyles on the regarded week and so those people, who:

- were away through holiday, visit or hospitalization on the regarded week
- work abroad or at another place but when coming home time to time they add their wages into the income of the household.
- are scholars living elsewhere (sublet, dormitory, at relatives) and getting their supplies primarily from the household, which provides data.
- are dependents with contract living with the household
- are tended by the state living with the household

Definitions of labour-survey

Economic activity: The population between the ages of 15-74 can be divided into two groups according to their activities on the regarded week:

- economically active population (available labour or labour supply)
- economically not active (inactive) population

Economically active population: The part of population that shows up as employee or place-hunter at the labour market, they belong to occupational or unemployed ones.

Economically inactive population: Those who do not belong neither to occupational nor unemployed.

Employment: Following the international recommendations by the trend of the labour-survey those can be considered as occupational who worked at least one hour on the regarded week that guaranteed income or those who were just temporarily out of their regular work.

The reason of the one-hour criterion's usage:

- all the existing types of employment in a given country can be considered
- at the determination of a nationwide-level labour demand or the analysis that requires measuring the usage of the work quantity (competitiveness, productiveness) the connection can be created between the given value and the amount of work used (effectively achieved hours of work)
- unemployment can be defined by the full lack of having a job

Definition of income guaranteed by work: Work can be done by employee, joint venture or as a member of a co-operation, as casual or seasonal labourer, as private entrepreneur, outside worker, as a helping relative on a farm belonging to the household, or by an activity done in an enterprise, working with a contract of authorization or by an oral agreement.

At work that provides income, income can be:

- money income, wage, or profit resultant from an enterprise, independently from whether it has been realized immediately after doing the work or a bit later.
- wage or premium in kind
- quota from the income of the farm belonging to the household, enterprise through doing work as a helping relative

Those who get anything from the list are qualified occupational, as well as independents that do an activity in the hope of profit from the enterprise.

Works that are not counted to insure income: (earning activities): any free help for anybody else's household or institutions, public work, work that is in relation with building an own house, flat, its renovations, or reparations, work done through scholar training.

Temporary absence from work: The group of occupational include those people who were temporarily absent from work at the regarded period. Temporary character means that a labourer has a job that has been started and not finished yet, but after the regarded week, he/she will return there.

Working hours: The definition of the regular (according to work order) working hours usually refers to the working hours of a whole week. Regular work time at an employee is the number of hours that is included in the contract for work and at an independent it is as much as needed for finishing work and to continue business. At an unbounded work time or seasonal labourer when their working hours is too fluctuating the answer: "too various" can be coded. At some professions on date(s) of readiness the regular working hours are significant.

Definition of unemployment: International recommendations say: unemployment can be declared when 3 criteria are coming true. Accordingly those people are unemployed

- did not work on the regarded week and do not have any job from where he/she was temporarily absent
- were seeking a job for four weeks before the regarded week
- could put on a job in two weeks time if the suitable work is found (availability)

There's a special group of unemployed people who weren't working on the regarded week but had already found a job that has to be started at last in 90 days (until 2000 – in 30 days)

Criterion of active place-hunting: Criterion of active place-hunting means, that the asked person made steps towards finding a job as an employee or to start a business on his own four weeks before the interrogation.

Active place-hunting is when the asked person:

- went in for a job at the Regional Labour Centre or at a private registry office
- got in contact with employers directly
- advertised or answered an advertisement
- read an advertisement
- made inquiries about a job at relatives or friends
- acquisition of the permissions and financial sources for private business

Durative unemployed people: Durative unemployment can be defined by the length of joblessness.

Economically not active population: The major part of population is made up from people who cannot or do not want to enter employment. They are not the members of labour-supply, not performed on the labour-market.

Passive unemployment: Looking at the situation of this special group (in the recommendations of ILO: “discouraged workers”) it stands really close to unemployment. In overall they can be described being absent from labour market because of their compelling surroundings.

The basic showings of labour market balance:

- Unemployment rate: the ratio of unemployed people within economically active population.
- Durative unemployment rate: the ratio of durative (12 months or more) unemployment within total joblessness.
- Rate of economic activity: the rate of the sum of occupational and unemployed people within population
- Employment ratio: the rate of employed people within population.

Main components of survey and questionnaire

3 important facts were considered during making the questionnaire:

- comparability (same content should be produced from which there is a longer period)
- demands of Hungarian users
- recommendation of EUROSTADT, ILO and rules

1. General information

Information gained by the questionnaire about total population of territory living in private households.

- day, month and year of birth
- place of birth
- if it is not Hungary the residency
- nationality
- sex marital status
- the head of household and the relation with him/her
- place of residency 1 year ago
- county of Hungary
- highest scholar qualification: ISCED ‘99(Fields of education and training)
- level
- speciality
- date of it
- social incoming

- maternity benefit/aid
- pension
- disability pension
- joint and survivor annuity
- orphan benefit
- medical attendance benefit

15-74 years old population

- Did he/she work the last week?

If not: Has he/she job?

- Is he/she a registered unemployment?
 - If yes: Has got he/she attendance
- Had he/she job 1 year ago?
- Did he/she participate in education or training in last 4 weeks?
 - If yes: level of education

2. The factor of labour activity

Activity (active/inactive)

Employees

- Working time(full time or part time)
- Working time system of the last 4 weeks
- Sideline (yes or not)
- Parameter of working place
- Profession
- Scope of activities
- Employment status
- Kind of contract for work
- Wage employee

Unemployed (who search job)

- Cause of looking for job
- Previous activity
- Method of searching
- Type of request job

Unemployed (who not search job)

- Why does not he/she search job?
- Does want he/she work?
- Did he/she work beforehand?

Employee status:

International Classification of Status in Employment 1999

3. Territorial research activity

- Number of research institutes on the territorial unit
- Impact factors and degree of researchers
- Number of scientific projects issue in a year
- Number of international scientific projects issue in a year

4. Accessibility of human resource development institutes

- Number of elementary schools
- Number of high schools
- Number of faculties of university or college
- Availability of vocational education
- Lifelong learning policy on territorial unit

5. Accessibility of cultural services

- Institutes

- Specialists and animators
- Non-governmental Organisations

6. *Social and well being network of territory*

- Institutes
- Benefit system
- Health system
- Recreation availability

4. Conclusion

The competitiveness territories have the high rate of qualify labour in the group of able to works. The education system is efficient because on the one part it fits for the creative and innovative activities the younger; on the other hand it follows the demand of labour market in flexibility. The successful and competitiveness regions have the level of knowledge base level and the labour culture, in additional the labour forces able to adapt plainly to changes (in trainings and courses the active labour force retrain able), ambitious with their environment.

In successful and competitiveness regions the new economic structure the knowledge base economical activities and the recovery of economic services enhance the social cohesion. Unschooleds are crowded out from labour market and the local society polarizes. The active gentility animates the regional development with utilize of higher incoming.

To sum up we can enhance the territorial development process with complex human resource survey. We can open up the social disadvantages in additional can find solution to this problem if we can survey the complex problems.

References

- BADDELEY, M., MARTIN, R.L. and TYLER, P. (1998) European regional unemployment disparities: Convergence or persistence? *European Urban and Regional Studies*, 5,3, pp.195-215.
- BALDWIN, R., FORSLID, R., MARTIN, P., OTTAVIANO, G., ROBERT-NICOUD, F. (2003) *Economic Geography and Public Policy*, Princeton: Princeton University Press.
- BARRO, R. and SALA-I-MARTIN. X. (1995) *Economic Growth*, New York: McGraw-Hill.
- BEGG, I. (1999) Cities and Competitiveness, *Urban Studies* 36, 5/6, pp. 795-810.
- BEGG, I. (2002) *Urban Competitiveness: Policies for Dynamic Cities*, Bristol: Policy Press.
- BEST, M. (2001) *The New Competitive Advantage: The Renewal of American Industry*, Oxford: Oxford University Press. 35
- BOLDRIN, M. and CANOVA, F. (2001), 'Inequality and Convergence: Reconsidering European Regional Policies', *Economic Policy*, 16, pp. 207-53.
- BRACKMAN, S., GARRETSEN, H. and van MARREVIJK, C. (2001) *An Introduction to Geographical Economics*, Cambridge: Cambridge University Press.
- BUTTON, K. and PENTECOST, E. (1999) *Regional Economic Performance within the European Union*, Cheltenham: Edward Elgar.
- CAMAGNI, R. (2002): On the Concept of Territorial Competitiveness: Sound or Misleading? *Urban Studies*, 13, pp. 2395-2411.
- CELLINI, R. and SOCI, A. (2002) *Pop Competitiveness*, Banca Nazionale del Lavoro,
- CHESHIRE, P. and GORDON, I.R. (Eds) (1995) *Territorial Competition in an Integrating Europe*, Aldershot: Avebury.

- DAVIS, D.R. and WEINSTEIN, D.E, (2001) Market size, linkages and productivity: a study of Japanese regions, Working Paper 8516, National Bureau of Economic Research, Cambridge, Mass.
- DUFFY, H. (1995) *Competitive Cities: Succeeding in the Global Economy*, London: Spon.
- DUNFORD, M. and SMITH, A. (2002) Catching up or falling behind? Economic performance and the trajectories of economic development in an enlarged Europe, *Economic Geography*, 76, 2, pp. 169-195.
- EUROPEAN COMMISSION (2004): *A new partnership for cohesion - Third Report on Economic and Social Cohesion*. European Commission, Brussels.
- EUROPEAN COMMISSION (1999) *Sixth Periodic Report on the Social and Economic*
- EVANS, P. (2000) Income dynamics in countries and regions, in Hess, G.D. and van Wincoop, E. (Eds) *Intra-national Macro-economics*, Cambridge: Cambridge University Press, pp. 131-155.
- FUJITA, M. and THISSE, J-F. (2002) *Economics of Agglomeration: Cities, Industrial Location and Regional Growth*, Cambridge: Cambridge University Press.
- FUJITA, M., KRUGMAN, P. and VENABLES, A. (1999) *The Spatial Economy: Cities, Regions and International Trade*, Cambridge, Mass: MIT Press.
- GARDINER, B., - MARTIN, R., - TYLER, P. (2004): *Competitiveness, Productivity and Economic Growth across the European Regions*. University of Cambridge, Cambridge.
- GARLICK, S. (2003): *Growth and Competitiveness in the Gippsland Region: Performance and Determinants 1984 – 2000*. Regional Knowledge Works, Sydney.
- GHK (2005): *Long-Term Economic and Employment Strategy for the Black Country*. West Midlands Regional Assembly, Birmingham.
- GROUP OF LISBON (1995) *Limits to Competition*, Cambridge, Mass: MIT Press. 36
- H.M. TREASURY (2001) *Productivity in the UK: 3-The Regional Dimension*, London: H.M. Treasury.
- H.M. TREASURY (2003) *Productivity in the UK: 4-The Local Dimension*, London: H.M. Treasury.
- JENSEN-BUTLER, C, (1996) Competition between cities, Urban performance and the role of urban policy: A Theoretical Framework, in Jensen-Butler, C., Schacher, A. and Weesep, J. van (Eds) *European Cities in Competition*, Aldershot: Avebury, pp. 3-42.
- KOVÁCS P. – PETRES T. – TÓTH L. (2005): A New Measure of Multicollinearity in Linear Regression Models. *International Statistical Review (ISR)*, Volume 73 Number 3, International Statistical Institute, Voorburg, The Netherlands, pp 405-412. KOVÁCS, P. – LUKOVICS, M.: Classifying Hungarian Sub-regions by their competitiveness 12
- KRUGMAN, P. (1994) Competitiveness: A Dangerous Obsession, *Foreign Affairs*, 73, 2, pp. 28-44.
- KRUGMAN, P. and VENABLES, A. (1996) Integration, specialisation and adjustment, *European Economic Review*, 40, pp. 959–967.
- LENGYEL I. (2004): The Pyramid Model: Enhancing Regional Competitiveness in Hungary. *Acta Oeconomica*, Vol. 54 (3) pp. 323-342.
- LENGYEL, I. (2000) A regionalis versenyképességrol (Regional Competitiveness). *Kozgazdasagi Szemle*, 47, pp. 962-987.
- LENGYEL, I. (2005): On the interpretation of territorial competition and competitiveness. In HORVÁTH, GY. (ed): *Competitiveness of the Hungarian Regions and Places in the European Economic Space*. Centre for Regional Studies, Hungarian Academy of Sciences, Pécs, p. 37. (forthcoming)
- LEVER, W. F. and TUROK, I. (1999) Competitive cities: introduction to the review, *Urban Studies*, 36(5–6), pp. 791–793.

- LUNDEVALL, B. A. and JOHNSON, B. (1994) The learning economy, *Journal of Industry Studies*, 1, pp. 23–41.
- MALIZIA E. E. – FESER E. J. (1999): *Understanding Local Economic Development*. Center for Urban Policy Research, New Jersey.
- MARTIN, R. L. (2003): *A Study on the Factors of Regional Competitiveness*. A final report for The European Commission DG Regional Policy. University of Cambridge, Cambridge.
- MYRDAL, G. (1957) *Economic Theory and Underdeveloped Regions*. London: Duckworth and Co.
- OECD (1999a) *The OECD Territorial Reviews: a conceptual framework*. Territorial Development Service, DTPC, November.
- OPDM (2004) *Competitive European cities: where do the core cities stand?* Office of the Deputy Prime Minister, Urban Research Paper 13, London: OPDM. 37
- PARKINSON, M. et al (2006): *State of the English Cities*. Office of the Deputy Prime Minister, London.
- PIKE, A. et al (2006): *New Horizons Programme The Economic Viability and Self-Containment of Geographical Economies: A Framework for Analysis*. Office of the Deputy Prime Minister, London.
- PORTER, M. (1990) *The Competitive Advantage of Nations*. New York: The Free Press.
- PORTER, M. (2001) *Regions and the new economics of competition*, in: A. SCOTT. (Ed.) *Global City-regions: Trends, Theory, Policies*, pp. 139–157. New York: Oxford University Press.
- PORTER, M. E. – SCHWAB K. (2003): *Global Competitiveness Report 2002-2003*. World Economic Forum, Geneva, Switzerland.
- PORTER, M. E. (2000) *Location, competition and economic development: local clusters in the global economy*, *Economic Development Quarterly*, 14, 1, pp. 15-31.
- PORTER, M. E. (2001) *Regions and the new economics of competition*, in Scott, A.J. (Ed) *Global City Regions*, Oxford: Blackwell, pp. 139-152.
- PORTER, M. E. (2003) *The economic performance of regions*, *Regional Studies*, 37, 6/7, pp. 549-578.
- PORTER, M. E. and KETELS, C. H.M. (2003) *UK Competitiveness: Moving to the Next Stage*, DTI Economics Paper 3, London: Department of Trade and Industry.
- SAPIR, A. (and others) (2003) *An Agenda for a Growing Europe: Making the EU Economic System Deliver*, Report of an Independent High Level Study Group for the European President, Brussels.
- STEINLE, W.J. (1992) *Regional competitiveness and the single market*, *Regional Studies*, 26, 4, pp. 307-318.
- WORLD BANK (1999) *World Development Report*. Washington, DC: World Bank.
- WORLD BANK (2001) *Understanding and measuring social capital: a synthesis of Findings and recommendations from the social capital initiative*, Social Capital Initiative Working Paper No. 24, April, Washington, DC.