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CLUSTERS IN THE REGIONAL SUSTAINABLE DEVELOPMENT: APPROACHES AND POLICIES FOR THEIR IMPLEMENTATION

The impact of the clusters on the regional sustainable development is analysed in order to evaluate the alternative approaches and policies to enhance the competitiveness of the regions and to improve the local socio-economic standard of life and social cohesion. The paper discusses the strategic framework of public policies that support regional specialisation and clusters. The methodology applied is based on the SWOT analysis of cluster, M. Porter's diamond of competitive advantages evaluation and the public choice theoretical framework for setting the tasks of clusters development.

The ongoing reform of the EU Regional Policies is evaluated on the basis of empirical analysis of the implications for Bulgaria and the new member states after their EU accession as regards public sector's financial accountabilities, institutional building and socio-economic sustainability of regions. The article indicated that evolutions in regional policy, science and technology policy and industrial/enterprise policy are in demand to serve the objective of supporting clusters at the regional level.

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The concept of building clusters of enterprises with the purpose to improve the regional economic competitiveness has been understood and applied in Bulgaria with considerable evolution of the options for implementation of regional development policies. At both national and regional level in Bulgaria, the key concepts that underlie the cluster approach have been introduced in the centre of policy formulation nearly at the end of the first decade of the transformation of the Bulgarian economy to market system. Historically, the socialist state in Bulgaria until 1989 conducted industrial development policy combined with the introduction of scientific and technical progress, which involved a kind of experience in applying the concept of clusters in the development of productive forces based on state ownership. It lacked the flexibility of the participation and innovation of companies as the dominant thesis in the organization production systems was a form of centralized economic management rather than initiative and freedom of integrating businesses 'bottom up'. The public understanding of clusters has been targeted to implement the neo-liberal doctrine of starting up of small businesses. In some cases, the policy interventions in support of the nascent private sector for the creation of small and medium sized enterprises (SMEs) have been explicitly encouraged as cluster policies. The Bulgarian experience with this form of implementation of clusters has not been different from other transition countries.

Business support centres (BSC) have been utilized as one of the main SME policy interventions mechanisms applied in transition economies since 1989. The networks of business support centres which were envisaged to be one of the main driving force behind SME development have been given a start but they did not prove to be sustainable. The problems that have effectively arisen in the organization and structure of the BSC have in general made their role marginal and unpopular to be funded by public funds. Their dependence on funding from abroad (most often on projects for a certain period) inevitably was also conditional on their success. As the BSC did not contribute much to clusters' contribution to regional development they further diminish their activities as their core funding from international assistance agencies finally begins to come to an end (Bateman, 2000, p. 275-298).

In spite of the fact that some of the business support centres still continue their activities, the conceptualization of clusters' as contributors to regional development took a different approach and has undergone substantial changes in the last decade. The prevailing understanding of cluster has become the concept that building at *regional level networks of enterprises* may be on the ground of horizontal or vertical integration in order to improve the efficiency of the participating companies. Launching the clusters as instrument of industrial policy has been started with the Strategy of Industrial reconstruction undertaken by the Bulgarian Economic Chamber since 2002. In many other Government policy programmes and measures in Bulgaria, the main tasks of the cluster have been related to its implementation and support as an instrument of restructuring of industries and more efficient market oriented reforms. These programmes have the objective of reinforcing regional specialisation by supporting linked industries in a geographical location and by emphasising stronger interactions among different public and private actors.

The understanding of the clusters as developed by M. Porter serves the need to identify the geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in a particular field that are present in a nation or region (Porter, 1990). Much of the recent growth of intellectual and policymakers' interest (Porter, 1998) in this issue has arisen by the end of the 90s as part of the renewed interest in the P. Krugman's contribution (Krugman, 1991) to agglomeration economies and the localization advantages of interfirm mobility of labour (Krugman, 1991) as a result of the market economy transformation in Bulgaria.

Our analysis of the SME's position in Bulgaria shows that until now the SMEs are not the driving force of the creation of networks and developing their role of subcontracters as instrumental to the growth of productivity and competition. The SMEs could not become sustainable and since the beginning of the Global crisis the negative impact of the reduced market demand and high credit exposure of SMEs has lead to worsening of their economic position. The rate of "death" among the SMEs is the highest in the current crisis as they become more often

than other companies insolvent to creditors. If the cluster creation could have been more developed the SMEs development could have been given better chance and support by and within the clusters.

The SMEs in Bulgaria have started to participate in clusters and clusters networks only a decade ago. In recent years, contemporary cluster groupings of enterprises have been established in some of the most dynamic sectors of the Bulgarian economy (ore mining and metallurgy, wood processing, IT, tourism, Renewable energy sources, apparel & textiles, wine, tobacco). Cooperation within these groupings develops and transforms them into clusters. The future prospects of clusters seem to depend on the policies targeted to foster development of key factors which are not inherited but should be created: modern management, trained labour, capital, infrastructure, research and innovation. As M. Porter has defined by the concept of the "diamond of the competitiveness": "The interlinkages of firms are based on common interests to increase the value added by the synergy of specific clusters' goals and activities which serve the interests of the geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition. They include, for example, suppliers of specialized inputs such as components, machinery, and services, and providers of specialized infrastructure. Clusters also often extend downstream to channels and customers and laterally to manufacturers of complementary products and to companies in industries related by skills, technologies, or common inputs. Finally, many clusters include governmental and other institutions - such as universities, standards-setting agencies, think tanks, vocational training providers, and trade associations - that provide specialized training, education, information, research, and technical support" (Porter, 1998).

On the other hand, the idea of structural dependency as related to subcontracting is not easy to be accomplished in a transitional country where the changes of property and of the system of management are still under way. While the old system of centralization has been destroyed it is clear that the new mode of governance has not yet been completely adopted. For instance the development of business networks and clusters around large enterprises – especially in the regions of Sofia, Devnya, Sevlievo, Razlog, Pirdop and Panagyurishte has reflected some features of the past: the basic production specialization determines the type of relations with the subcontractors or the mode of outsourcing applied in the cluster but the interlinkages with new partners in the cluster are still in search of operational efficiency.

The basic framework of implementation of the transition to market economy not only in Bulgaria but in other countries in transition is not fully reflective of current concepts for dynamic institutional change with the purpose to impact the economic development. The transition to market economy until present may be viewed upon only as an intermediate result of the accomplishment of goals, which relate to institutional, regulatory an organizational changes having a positive impact

on the economic development (Besley, Dewatripont, Guriev, 2010). In order to understand better the possibilities for a change of SMEs' role by creation of clusters we pay special attention to the confrontation between the old and new paradigms of productivity growth as perceived in Bulgaria at macro and microlevel.

The fostering of better understanding of the new paradigms of competitiveness and designing strategies and policy measures has not only practical importance but has become a necessity at the contemporary structural crisis of the Bulgarian economy. As soon as a critical mass of companies elaborates their own competitive strategy, the economy as whole would take off towards a favorable productivity growth and competitiveness.But at the same time the new modes of raising productivity growth and competitiveness are much in need of being given an impetus or a "push" by the synergy of adequate policies and their more efficient implementation. On the basis of the internationally acknowledged theoretical concept of the total productivity of an economy based on clusters development (Pitelis, Sugden, Wilson, 1998), we consider that the Bulgarian case study may present an example of starting of production groups or clusters at the availability of stocks of economic factors which are not a sufficient precondition for productivity growth and competitiveness. The "upgrading" of the economic factors presents challenges at macrolevel while the clusters are to reflect at microlevel the difficulties encountered. The deindustrialization as a result of the transformation of the socialist economy in the 90s has led to some period of destruction of the former industrial structures before targeting a renewed focus on the industrial location and regional competitiveness. At present the policies directed at creation of clusters are a way to stimulate the implementation of new instrument of growth and competitiveness simultaneously with overcoming the losses of former advantages of the old production structures.

Growing interest in models of innovative and competitive economies by encouraging „free-wheeling" entrepreneurship and synergistic relationships among enterprise in the sectors of industry and services (Pitelis, 1998) as well as the creation of chains of producers in traditional processing and relatively low-tech sectors (Saxenian,1994) have been contributing to a great extent to the outcome of the transformation crisis in Bulgaria and achieving a sustainable economic growth in the years since the end of the 90s.

Of special relevance at present may be the deeper understanding of the concept that the factors most important to competitive advantage in most industries (especially the industries most vital to productivity growth in advanced countries) are not inherited but they are created within a nation through processes that differ widely across nations and among industries. By modifying currently existing technologies, shop-floor organization, and managerial hierarchies, existing firms may be able to meet the changing demand. The company-level response needs to be able to adjust to flexible specialization. This is a strategy of permanent innovation: accommodation to ceaseless change, rather than an effort to control on the side of one company over the other participants in the cluster. This strategy is based on flexible - multi-use – equipment, skilled workers and the creation of technological interlinkages, through

politics, of an industrial community that restricts the forms of competition to those favouring research and innovations. To achieve this change in the clusters' development in Bulgaria it is necessary to promote *vertical coordination of product columns instead of relying mainly on horizontal measures in clusters*. For these reasons, the clusters have to be able to spread flexible specialization within the scope of groups of companies– even if it may resemble amounts to a revival of "craft" forms of production that were emarginated at the origins of mass production. Only in this way the scientific and research institutes, the high schools and universities will take their adequate place and role in the clusters, which is not a well advocated practice so far.

In the case of Bulgaria at present there is a pending necessity of recognition of the role of the productivity within the new paradigm of creating competitive advantages. Such a recognition demands further progress in the analysis of the determinants of productivity and the improvement of their contribution to growth. The clusters may contribute also to improve the social responsibility of the companies as their corporate governance has to evaluate higher the social values and to reconsider the strategies to respect them (Bailey, De Propris, Sugden and Wilson, 2006, p. 555-572). An important consideration of great importance is the assessment of the proper rate at which the factors of productivity are created, upgraded, and made more specialized to particular industries (Saxenian, 1994).

Since 2004 cluster-based economic development strategies have been successfully implemented in Bulgaria. At present the SWOT analysis of clusters may help to improve and develop further new policies within the EU dimension for Bulgaria taking into consideration that the experience gained may allow to upgrade strategic and operational goals of clusters at the contemporary economic situation in the world and in the country.

As described by Ch. Pitelis and R. Sudgen (Pitelis, Sudgen and Wilson, 2006) the development and upgrading of clusters is an important agenda for governments, companies, and other institutions not only of emerging market countries but developed countries as well. Cluster development initiatives in transition countries like Bulgaria are an important new direction in economic policy, building on earlier efforts in macroeconomic stabilization, privatization, market opening, and reducing the costs of doing business. The experience gained until now is indicative of the need of future changes that are very important to improve the role of clusters in product innovation and competitiveness.

Open question is to what extent the updating of the National program for clusters at Govermental level can meet the challenges facing the Bulgarian economy at present. These challenges are in three main areas of introducing changes in favor of economic growth: 1) to stimulate greater production efficiency and 2) to reconcile the interests of production companies with interests of society by increasing employment and income and 3) institutionalization of best practices for developing competitive production by regulatory changes in support of clusters and by crucial progress in development of education, research and innovation, building up human capital. Being at the stage of preparation of the Partnership

Agreement of Bulgaria with the EU for the 2014-2020 programming period Bulgaria takes into consideration the need to achieve as a strategic priority the growth of innovations and the investments for intelligent growth. Three main aspects are of vital importance in the national strategy of clusters: 1) raising the competitiveness of innovative small and medium size enterprises in key sectors of the economy; 2) development of research and innovations as "wheel" of clusters' productivity; 3) access to the implementation of ICT. The key messages for 2014-2020 in the building of clusters are to improve the absorption of EU funds by concentrating both national cofinancing and EU funds on innovations and to reforms in the regional dimension of the development policy.

Our argument as regards the contemporary cluster policies is that the links between the operationalisation of the concepts, the local context of clusters in policy practice, and the resulting policy outcomes must be explicitly analysed as new areas of public governance and public financial support for industrial, regional and innovation policies in favour of improving competitiveness (Bailey, De Propris, Sugden and Wilson, 2006). The experience of the developed countries shows that the success of clusters is rooted in the ability to achieve synergy of policies in support of innovations, entrepreneurship, regional development and economic efficiency (OECD, 2011).

Further fostering strategic clusters for European innovation and global competitiveness has become more important at the present stage of designing and implementing the EU strategies for growth and competitiveness for 2014-2020. Based on data of the created in 2007 European Cluster Observatory with EU funding one may observe on the map of regions by EU countries rather uneven and unbalanced situation of clusters implementation as instrumental to economic growth. This is indicative for the availability of potential for future clusters' development in the EU. The European Cluster Observatory database reflects information on clusters, cluster initiatives, organisations and clusters' policies throughout 32 European countries and gives possibility to make some conclusions about the type of clusters and the national approaches to them.

Cluster policy needs a considerable change in ambition and effectiveness to be a real driver of Bulgaria's economic development through integration in the European Union. Success depends on concerted changes in understanding, policies and initiatives at many different levels. According to the Upgraded list of the contracts concluded up to June 2013 for EU financial support under the grant procedure BG161PO003-2.4.01 „Support for cluster development in Bulgaria" the Bulgarian Managing Authority of the Operational Programme of the EU "Development of the Competitiveness of the Bulgarian Economy" 2007-2013 has approved 36 projects for grant support of clusters. The areas in which the clusters operate include traditional sectors and productions like wine, apparel and textile, tourism, food processing as well as ICT, Renewable Energy Sources, Energy Efficiency and others. The chief features of the clusters presented is the initial stage at which they are getting the grants from the EU funding as well as existence of comparatively small number of clusters which involve own research and innovation structures. However there are also some

innovative small and medium size companies which are a part of clusters based on innovations or are to create efficient new products by the clusters.

The ongoing reform of the EU Policies with the design of the New Cohesion Policies for 2014-2020 has to encourage further clusters development at national, regional and international level by setting targets for funding with national and European funds the various forms of improving the competitiveness of enterprises in the EU. Following the principle of subsidiarity the future absorption of European funds for regional development makes it necessary that the national Governments increase the co-financing and improve the quality of the support by funds and by advice given to the companies busy with clusters for regional development.

This proves the necessities of improving the public governance in the area of clusters' support and functioning, institutional building and socio-economic sustainability of regions. As clusters are organized as collaborations between a diverse number of public and private sector actors, such as firms, government agencies, and academic institutions, their role in regional innovative development may be better focused on the long term goals of improving social welfare and global competitiveness (Cowling and Sugden, 1999). Clusters' activities generally are in a broad range of areas, e.g. supply-chain development, market intelligence, incubator services, attraction of foreign investments, overall technical progress and market penetration. The role of clusters has been acknowledged at the EU institutions by undertaking a number of measures of the European Cluster Policy Group. Within the framework of the European Cluster Alliance has been undertaken a study to explore ways on how to best assist EU countries in supporting clusters by expanding the policy dialogue under the European Cluster Alliance. In the context of the EU as global actor there are challenges to more effective suppory of transnational cooperation between cluster organizations and promoting excellence of integration of innovative SMEs in clusters (EC, 2008).

The European Union's support for regional development in Bulgaria has grown in parallel with the pre-accession progress of adjustment of the Bulgarian economy. The funds targeted at achieving greater economic and social cohesion and reducing disparities within the EU have more than doubled in relative terms since the end of the 80s, making regional development policies the second most important policy area in the EU. Since mid 90s the EU funded projects for clusters' development among Bulgarian companies have given a start of new industrial and competitiveness policies during the preparation of Bulgaria for EU accession. It has proceeded with respect of achieving compliance with the EU regional development policies. Since 2007 when Bulgaria has become an EU member state the implementation of the specific aid of the EU Structural and Cohesion funds has allowed to contribute to the achievement of main priorities of regional development. The Europeanisation of regional policies has contributed to further improvement of the public governance process and institutions. The Operational Programme "Regional Development" serves the fulfilment of coherent regional development strategy for the period 2007-2013 supported by multi-annual investment commitments

concerning the infrastructural development of urban centres, territorial connectivity, sustainable tourism growth and support to regional and local partnerships.

The majority of the developments'grants under EU funds have been earmarked for the Objective 1 regions, i.e. regions whose GDP per capita is below the 75% threshold of the EU average. Bulgaria's regions are evaluated to fall within this category of level of development. The understanding of the needs of regional strategies development acquires much higher significance in the foreseeable future with regard to the fitness to make use of the EU funds as well.

The greater part of EU funds with the purpose to provide support to clusters in Bulgaria are meant for traditional production entities, branches and sectors of the national economy. For the future it is expected that the EU funded programmes will give priority to clusters specialised for innovations and integrating various sectors and branches. The understanding of the necessity of strategies for innovative growth and overall regional development has acquired greater importance with regard to possibilities for the absrption of EU funds in the context of the changes in the New Cohesion policy of the EU for the period 2014-2020.

Classification of Clusters

Our research has made possible to present the map of the local production systems in Bulgaria on the basis of the two applied methodological approaches: 1) featuring clusters as production systems; 2) classification of clusters on the basis of SWOT analysis. The concept of local production system has a wider scope of presenting a local network of enterprises than the cluster as it involves interlinkages of informal interdependence among companies as well. In our case such a concept is useful to reveal the local interdependence of companies involving big enterprises. On the basis of local production systems clusters have grown out as one of the examples of enterprise restructuring that has not coincided with the privatisation but has taken some time to occur.

The main purpose of outlining the local production systems is better achieved by the approach we suggest for making SWOT analysis in order to overcome the limitations and shortcomings of the indicator "Registered firms acting at regional and municipal level" and making use of classification according to a set of criteria of the industrial clusters created in different branches and regions and municipalities of Bulgaria.

Further in our SWOT analysis we present the main characteristics of the local production systems in Bulgaria as far as their existence may be proved by the indicator of regional sector's concentration as well as by other regional development trends.

The local production systems in Bulgaria have a typical feature of being developed in regions with a high concentration of some of the main sectors (or subsectors) of economic activities. It is clearly demonstrated that the interdependence among some sectors, subsectors and interrelated activities has been crucial for the degree of the horizontal and vertical inter- and intra-sectoral linkages between firms and economic and socio-economic entities.

The understanding of the term “cluster development” in Bulgaria may be considered comparatively new. It has been introduced to the policy makers and the practitioners by the seminars and project wok in Bulgaria initiated in 1995 by the World Bank on the problems of competitiveness and competition. Nevertheless due to the lack of industrial policies targeted at clusters it has remained better understood much more in the theoretical than in the practical aspect as concerning the competitive potential of the sustainable regional development. In its explicitly defined meaning the term “cluster” has not entered the more generalized economic development or regional policy approaches while it is well acknowledged in the competitiveness policy ‘s operational mechanisms and approaches.

Traditionally in the accepted approaches in Bulgaria there is a certain preference to consider regional potential for development as dependent highly on the urban-rural mix and the sectional composition of economic activities. But the local development is to a great extent based on local production systems and their specialization in inter- and intra-sectoral linkages and economic activities.

Our identification of clusters takes into consideration the following aspects besides the statistical evaluations that have been studied:

- Evaluation of the qualitative characteristics of a given production system as developed on the basis of its relative share in the given sector or branch structure at national and regional level; the dynamic trends of development of a given sectors or subsectors and branches of the national economy.
- Evaluation of the sustainability of the sector interdependence among economic entities localized in a given region.
- Evaluation of clusters by the process of identification of the specific features of the regional potential and to what extent it has gained importance for the economy of a given region. The human capital resources and their development, the infrastructure, and the regional institutional setting may be of great advantage for a given cluster.

Our analysis has shown that a number of local production systems and/or clusters have come into existence as a result of the long-term development in the last decades since the beginning of the 60s. The main conclusions we may advance are as follows:

First, for the period of nearly two decades since the transition of Bulgaria to market economy the structure of the local production systems has been considerably changed. It is observed clearly a decline or even liquidation of a number of production systems at sector, subsector and branch level. This is the case with the decline of local production in the sectors of food processing based on local agricultural production, machine building, electronics, shipbuilding, instrumental machine building and chemical industries. Considerable decline has been registered in the food processing industry as well.

The process of decline and destruction of former technological ties and regional economic structures due to the liquidation of loss making state-owned enterprises and their privatization since 1996 in Bulgaria has caused a decline of the former local systems. Under the competitive pressures of the liberalized imports

and due to the slow process of privatization, the formation of new technological ties and inter and intra-sector linkages between firms has been controversial but nevertheless it has gained importance again. Typical is the situation of local production systems depending on the interrelations of firms in agriculture and food industries (as in Dobrich N-E, NUTS2), transport and tourism (Bourgas and Varna N-E, NUTS2), the ore mining, metallurgy and machine building (Sofia, Pernik S-W, NUTS2, Zlatitza-Pirdop, Plovdiv C-E, NUTS2).

Second, there is a clear interdependence between the regional economic performance of local production systems and the situation of the restructuring of the big enterprises, all former state-owned enterprises or still existing big state enterprises. In some cases the privatization of the enterprises has not been a success or still remains to give results by adequate corporate governance. Though in the period 1997-1999 the privatization process has been speeded up by the management-buy-outs, the outcome of this form of the privatization has remained controversial and for some enterprises uncertain due to the lack of financial consolidation of these enterprises and inadequate corporate governance. To a great extent this type of enterprises is a part of the now destroyed local production systems, which up to the beginning of the Bulgarian transition have had the advantages of the large scale production and international specialization in the socialist integration up to 1989.

On the other hand, there are still big state owned enterprises, which are not privatized though their restructuring has been under way in the last decade and has resulted in the decline of production systems at local level for instance the plants for military equipment production, for electro-energy production, lead and zink ores' mining and processing and others. The Bulgarian Shipbuilding industry (Varna, N-E, NUTS2) may be an example of the local production system (cluster) developed as monocentric cluster in the past with the interlinkages between enterprises, research and development institutes and trade company. It is a clear example of delayed restructuring of the state-owned enterprises and due to this after its privatisation the need of reconstruction of the local production systems and regaining export market shares still remains.

Third, the existence of big firms in the local production systems in Bulgaria seems to be indispensable for the success of the cluster. This is the case in all of the districts and municipalities with high concentration of economically interlinked activities as classified in our evaluation by the indicator of concentration and the indicator of complexity. In absolute terms high concentration of big and small and medium enterprises is observed in Sofia, Plovdiv, Varna, Bourgas, Stara Zagora and Blagoevgrad. These are the districts presenting local production systems which are not in decline but in the process of restructuring and in some cases they register growth and innovation. The smaller number of big enterprises as well as of medium and small sized enterprises is typical for Kardjali, Vratza, Vidin, Pernik, Targovizhte, Razgrad, Silistra and Montana. In these districts both the concentration and the complexity indicators are below the national average level and local production systems have not shown a specific development profile due to delayed restructuring. A new cluster with

promising opportunities to make use of European funds for restructuring is a cluster of privatized industrial enterprises in the copper ore mining and processing production. Due to the economic characteristics of the regions and municipalities we may conclude that in the regions with higher big enterprises' potential and higher density of the population there is a definite trend of growth of the number and of the efficiency of the small and medium sized enterprises.

Thus local production system have started to gain a more dynamic and market-oriented profile allowing for the co-operation and competition among the local economic entities. The lack of the driving force of local production systems can be acknowledged as a problem for the depressed districts and municipalities where the creation of the small and medium sized firms doesn't get incentives through the activities of the big firms. Thus the existing small and medium sized policies through opening possibilities of a start-up funds for the entrepreneurs and small businesses has not given adequate results during the last decade of transition to market economy (Bulgarian Small and Medium Enterprises Promotion Agency…, 2012). It is of great importance to reconsider the strategy of small and medium sized firm's development through changing the business environment and utilizing the potential of the human resources within the context of development of the local production systems.

The big enterprises in Bulgaria prevail in an absolute number only in several branches: telecommunications, tobacco processing, metal ores mining, coal production, electricity supply and uranium ores mining and processing. The presence of big enterprises in the local production systems is not contradicting the competition and the economic freedom. On the other hand, the situation of the big enterprises is the most important factor for the state of development and the potential of growth of a given production system. Thus the main issue of the local production systems in the transition period has become the transformation of the state-owned enterprises. Their poor financial performance and the losses of profitability have caused considerable destabilization and decline of former production systems and worsened international competitiveness indicators.

Fourth, the restructuring and the privatization of the state-owned enterprises are separate processes with strong impact on the activity of the local production systems. They have an impact on the small and medium sized companies as integrated in the local systems. As a result of the transition small and medium sized firms are predominant numbers of firms in most of the branches. This may explain why the creation of new successful cases of clusters is at the very start. The future of the cluster creation may depend on the process of further concentration at subsectors and branches as well as on the co-operation of firms within the clusters. There are some branches where the economic entities are mainly small firms. These branches include "Fishing", "Processing of wastes", "Technical maintenance of electrical appliances and the infrastructure of the electricity and gas and heat energy consumption", "Insurance and voluntary social security system" as well as retail trading. These types of small and medium sized firms show higher concentration ratio in the regions where there is a good performance of the local production system.

Thus local production systems have either been a result of a certain concentration of economic activities or they have engendered the demand of inter and intra-sectoral linkages between firms at local level.

Fifth, there is a definite trend of reduction of the degree of diversification of the economic structure of the local production systems during the transitions. Main conclusions to be drawn on the basis of the importance of the declining industries and big state-owned enterprises confirm the reduction of diversified activities of local production systems is stronger in areas where the big enterprises have run into structural crisis or there have not been any proper local production systems in the totalitarian period. This process is more clearly to be traced at the level of the municipality than at the district level. With typical monospecialised economic structure are characterized the regions in decline and the low developed rural areas and districts. The former production systems and clusters (in some of the cases the latter were non-existent in the past) in these regions are in decline. It is to note that in other regions the same combination of economic activities (by branch and sub branch) at the same time has demonstrated not only survival during the transformation but potential for growth in a rather rapidly changing competitive business environment. As an example is the creation of private firms for apparel, ready made clothes and textile products on the basis of specialisation of enterprises in different parts of country within a former state owned cluster for production of apparel, clothes and shoes.

Since the transition started the local production systems of the tobacco industry, the petroleum processing and the non-ferrous metallurgy have undergone profound changes due to the decapitalization of the state-owned enterprises and the slow pace of the privatization until mid 90s. The newly privatized enterprises are at the very start of restructuring their activities, thus making the evaluation of the linkages with local firms as co-partners or competitors much rather dependent on the uncertainty of the changes they will undergo. Due to the instability of the whole business environment due to the Global crisis there are often tensions arising from the change of the Government policies and the attitude of the privatized enterprise towards their domestic and external linkages. Such is the case with the privatization of the Chemical Works “Sodi Devnja”, the Chemical works “Chimko”-Vratza, Neftochim as the Oil –processing plant at Bourgas Black Sea Port. Their new owners change drastically the approach to mutual and intrafirm linkages by setting higher market –oriented criteria and outward looking behavior in stead of inward looking behavior towards the domestic firms.

Local production systems of newly created or privatized firms comprise at regional level either activities of two main sectors (or subsectors) or even of the three main sectors. They are innovative and are better adjusting to the changes in the economic environment and the competition challenges. They develop socio-economic interdependence with local authorities and institutions in order to get better chances for funding under some regional development programmes. Here we may discern districts and municipalities where the concentration of economic activities by sector, branch or even subbranch is higher than the average for the country as a whole. These local

production systems thus present higher than the average for the country interdependence and competition among the firms active in a given area.

Within this type of local production systems we may discern profound changes since the transition started. On one hand, there are some recently privatized enterprises which have been the “core’ of the local production systems up to the beginning of the transition but they have lost their relative competitive advantages in the last decade due to the lack of markets or because of technological backwardness. Thus the mismanagement of the privatized “Plama” oil-refinery and the chemical processing industry in Pleven (Central-Eastern region of Bulgaria), the Plant “Gara Iskar” for processing non-ferrous metals and the Metallurgical Complex “Kremikowtzi” in Sofia have caused considerable losses in the competitiveness of the local production systems and the regions where in the past their production created important linkages among firms and contributed to the employment possibilities, incomes and the higher than the average for the country purchasing power of the population.

The cluster mapping has allowed us to assemble a detailed picture of the location and performance of industries with a special focus on the linkages or externalities across industries that give rise to clusters. Extensive data is collected and processed under a project funded by The European Commission and has been brought to the policymakers’ attention.

The analysis of the reasons behind the clusters’ competitiveness or lack of competitiveness and their patterns of evolution over time has made necessary the SWOT analysis of clusters. The need to develop regional strategies in compliance with the EU policies has also motivated the analysis of the clusters in Bulgaria.

The SWOT analysis in the methodology for the Classification of Clusters

The purpose of the SWOT analysis is to make classification of clusters by revealing the main characteristics of the local production systems in comparison to each other. The goals of the analysis are to present the trends in the specialization of economic activities and to feature the changes of the competitiveness of the local economy.

Clusters may be classified on the basis of differentiation among the main principles uniting the relevant firms or enterprises in one cluster: horizontal integration, vertical integration and organization on the basis of general territorial integrity. In Bulgaria we have very few clusters built on the horizontal principle. The application of the vertical principle in clusters’ creation is not a new trend but it is typical for inherited from the past production systems with specific product specialization. There is not much data on the newly initialized clusters on this principle though their creation is the goal of some of the European funded projects in the area of enhancing competitiveness of the enterprises by deepening of the product and technological specialization. Analysing the existing clusters is possible on the basis of data for the concentration of enterprises in separate branches and data for the links and

interdependencies among enterprises in the local production systems. The main purpose of outlining the local production systems is better achieved by the approach we suggest in order to overcome the limitations and shortcomings of the indicator "Registered firms acting at regional and municipal level".

Further in our analysis we present the main characteristics of the local production systems in Bulgaria which may be discussed on the basis of the indicators for sectors' concentration in regions, as well as other indicators of trends of regional development related to the complementarities among the enterprises.

Making use of the SWOT analysis is essential for the comparison of the competitive potential of the sustainable regions. In its explicitly defined meaning in our country the term "cluster" has so far not been related to regions and entered neither the more generalized economic development nor regional policy approaches. It has been understood in the context of the competitiveness policy. But clusters are important for the regions as a source of opportunities to create firms with value added from the interfirm linkages, marketable products and services, employment, incomes and markets.

On the basis of the classification of local production systems we may distinguish several types of clusters' development in the regions of Bulgaria as follows:

• Local production systems based on the monospecialisation in a given sector (or subsector or branch). These local production systems are both monocentric and polycentric urban or urban-rural mix networks. In a number of districts the availability of more than two to three enterprises in a given subsector of branch seems to create incentives through the competition for the improvement of the quality of the production. The demonopolization and privatization of the state-owned enterprises have promoted deconcentration at local level by branches. This is the case in the clusters of tourism, transport and other services as well as in the clusters of firms for educational and information services.

• Some local production systems of agricultural production, food processing industries and services have been deliberately developed under the central-planning system in some rural and urban centres because of the availability of natural comparative advantages or in order to create employment possibilities in some areas of the Bulgaria. This type of local production systems is to be observed in the Northern-Western, North Central and Southern-Western and Southern-Eastern regions and some Municipalities of Bulgaria in the Southern Central region (NUTS 2).

The Bulgarian tobacco industry, petroleum processing industry, shipbuilding industry, the non-ferrous metallurgy and the mountainous and sea tourism have been developed as main specialization of the corresponding regions by improving the sector composition of economic activities in the regions concerned. Such local production systems have contributed to the urban or urban-rural mix development as part of the industrialization of Bulgaria in the post-war period until the start of the transition. The withdrawal of former Government policies of subsidizing the state-owned enterprises and investing in these local production systems combined with

the delayed progress in the private sector and its governance have caused a considerable decline in the industrial and agricultural sectors. One example is the decline of the local production systems of the tobacco and cigarette production where the public procurement system of stimulating the tobacco producers has run into crisis and this may be harmful in the future for the tobacco ping plants as the growth of tobacco has decreased due to lack of financial incentives for the farmers.

- Local Production systems which comprise at regional level either activities of two main sectors (or subsectors) or even of all three main sectors. Here we may discern 4 districts and 14 municipalities where the concentration of economic activities by sector, branch or even subbranch is higher than the average for the country as a whole. These local production systems thus present higher than the average for the country interdependence and competition among the firms active in a given area.
- Local production systems that have grown due to the availability of favourable demand and supply activities which are influenced by some domestic or international factors. To these belong since the past all Bulgarian urban-rural agglomerations which are favourably influenced by the natural endowments with resources as mineral resources, mineral spas, seaside resorts, healthy natural environment. As driving force for the development of tourism and trade have been developed some of the transborder regions with the countries of South-East Europe. The specific feature of this type of local systems in the respective transborder regions after the transition local systems develop opportunistically in a rather active, even aggressive environment. For instance new local production systems have grown in the MalkoTarnovo border region with Turkey (as the services cluster has become predominant) as well as the border regions with Greece, Serbia and Macedonia.

The creation of transborder clusters is an area of project activities of non governmental and business organizations whose activities may contribute essentially to the regional cooperation at microlevel. As an example may be taken the growing interest which presents an agreement between the Bulgarian Association of Business Clusters and Cluster House, a national platform for the development of clusters in Nis, Serbia. These clusters deepen their exchange of experience and good practices and this year on a basis of a Memorandum of Understanding have started the organization of the 4th Balkan Black Sea Cluster Conference "DAYS OF CLUSTERS 2013" in Sofia.

Competition has become an inseparable part of the local production systems. Thus supply-side responsiveness of the economy tends to be improved. This may be an important goal for the cluster development in the future.

A brief outline of the SWOT analysis of clusters may be summarized as follows:

Strengths

Clusters are being developed in regions with a high concentration of some of the main sectors (or subsectors) of economic activities. It is clearly demonstrated that the interdependence among some sectors, subsectors and interrelated

activities has been crucial for the degree of the horizontal and vertical inter and intra-sectoral linkages between firms and economic and socio-economic entities. The advantages entailed in the transition to the cluster type of organization and management are considerable and include:

- Setting up of independent governance and audit of performance in order to avoid mismatching in the production chain or the value chain on which the Cluster is based;
- Training of human resources and sharing good practices;
- Introduction of new business concepts and practices;
- Social responsibility type of policy of the cluster to the local communities;
- Promoting cooperation and assistance with the international community both in technical and financial terms;
- Fostering regional co-operation and ownership. Public–private partnership may serve the need of sustainability but the legal issues remain a bottle-neck.

Weaknesses

However, the challenges entailed in the transition to the new system of governance and management are considerable, and may include:

- Adjustments for compliance with numerous new laws and regulations by bearing transactional costs by all cluster members;
- Operational risks from additional new aspects of the business interdependence among the separate enterprises;
- Financial risks are higher as dependent on common discipline and efficiency.

Opportunities

The benefits of clusters are potentially great for their members as well as for their governance:

- Increased reliability in achieving compliance with EU standards and requirements;
- Lower operating costs;
- Opening of opportunities for public and private investments in infrastructure due to the integrity of common interests;
- Vastly improved opportunities for intra- and interregional trade, including producers in the region;
- Lower prices for the end customers.

Threats

- Trust among partners is a value added but is always under threat and needs to be taken good care;
- Competition within the cluster may be a source of risks and disagreements; It requires coordination and balancing of interests
- Common interests have a different price for each of the partners in the cluster.

Factors for the clusters' development

As key factors for the development of local production systems and clusters can be identified:

First, local production systems and clusters depend on *relative comparative advantages*. They are built and changed constantly under the pressure of competition to which they associate at a regional level, rather than to compete against one another.This motivates their mutual interest in the progress of the business, which involves improving the infrastructure, services and other activities of common interest.

The impact of price and non-price factors for the development of local production systems and clusters highlights the strong dependence of clusters on market conditions. To the price factors can be attributed the mutual interest to share the costs of training personnel with other companies participating in the cluster. To non-price factors can be attributed opportunity to share technological progress, knowledge, experience and know-how within the cluster in the presence of severe competition in the business environment.

Local production systems and clusters actually have to create new comparative advantages in order to build upon the natural advantages as location, natural resources, etc. A typical example in this area is a cluster dedicated to tourism and tourist services, for the development of which Bulgaria has rich natural resources and international prestige. Businesses that are a driving force for new local production systems (clusters) of this type are mainly private companies that are best adapted to the market. But even in the presence of favourable conditions (as it is in the clusters of tourism) very few of these clusters of companies restructure faster in comparison to other clusters. The main reason for this is that there is not sufficient interest to create advantages through and in the benefit of clusters. The main problem in the clusters of tourism remains the internal competition among the partcipants and the great number of newcomers to this sector.

Second, the need for *access to technology and modernization* is at the roots of the integration of the participants in the cluster. Practically clusters are an important formation for "diffusion" of knowledge and this is a factor for them at this stage that significantly increases their importance in the economy by the usefulness of spillover effects of their impact on the business environment. Considerable attention in creating incentives for the clusters in Bulgaria is to be given to this factor in order that it becomes the core of reforms in the integration of education, science and research and businesses oriented to innovations.

Third, a factor for the development of clusters is the *private sector and entre*preneurship. Of them arises primarily the initiative for cluster model of association mainly in order to reduce transaction costs to conduct business and jointly to supply to markets with high competition. Businesses that are a driving force for new local production systems (clusters) of this type are mainly private companies that are best adapted to the market.

Fourth, *the modernization of corporate governa*nce is a factor for participation in clusters as far as the sharing of expertise and training can take place in the cluster

more efficiently and take place in line with changes in the business environment and international trends.By participation in clusters the companies may improve their management and marketing.

Fifth, a *new factor for cooperation of companies in Bulgaria in clusters is the declining population* as a result of negative growth and substantial emigration abroad. The age structure of the population is also unfavourable and worsens. Significant regional changes in demographic potential is also reflected in terms of population distribution tend to occur in regions with regressive demographic repopulatsionen capacity. In such a situation may be reported varying degrees of problems. Apparently twelve regions are facing the negative tendencies - depopulation and aging population. Fifteen sub-regions, including large cities (Blagoevgrad, Burgas, Varna, Dobrich, Kardzhali, Pazardzhik, Plovdiv, Razgrad, Silistra, Sliven, Smolyan, Stara Zagora, Haskovo, Shumen) have a relatively favorable age structure of the population and varying potential of the local labor market due to migration in the country and in the EU.

Sixth, the job creation is an important problem that always has different local dimensions. Growing disparity in development between Sofia and regions and widening imbalances in the development of the territories are a factor that directly affects the demand for new alternative approaches to employment creation. The transition has had different impact on some regions and production areas. Due to this the impact of the local production systems varies considerably. Reducing the number of local production companies in Bulgaria resulted in a significant disruption of production systems and de-industrialization after the transition. This type of de-industrialization is not only typical decline of old industries in technology push of national and international competition. Deindustrialisation in progress due to lack of investment, sliding enterprises in bankruptcy and the crisis in their production and sales as well as inadequate management of formerly state-owned enterprises.

Seventh, the lack of investment and decline in investment activity is a problem for the development of the local production system. By clusters involved companies integrate on possible joint projects and attract foreign investors. As far as the financial situation of SMEs degree of intercompany indebtedness indicates unfavorable trends in the financial position of the interconnected by technological and economic dependence companies. Major problem since the introduction of the currency board in Bulgaria in 1997 still remains strict regulation requirements for collateral, which is an obstacle to access to credit for most small and medium sized businesses.

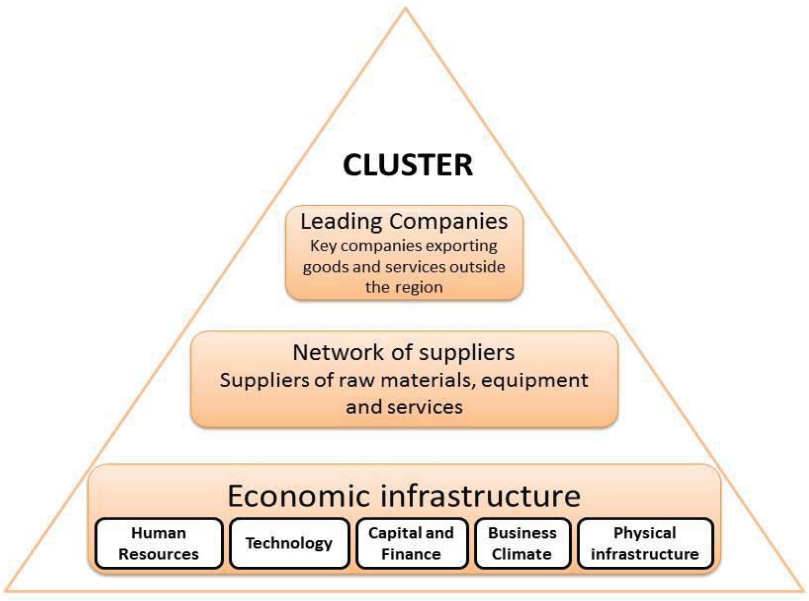
Eighth, the establishment of an institutional and legal infrastructure to promote business remains a task that has to be solved in the future. Implementation of numerous administrative and licensing procedures (over 500) obviously creates problems for the local production system, since the barriers are difficult to overcome than medium-sized enterprises. Licensing regimes are an integral part of the ongoing reforms in public administration and public sector management as a problem with the improvement of the administrative capacity and institutional policy.

Policies in favour of clusters

The policies for cluster development and fostering should be based on the principle, that entrepreneurs and initiatives on macro-level are most important for organizing business associations. The establishment and functioning of the cluster depends on the consolidation of the business associations on joint interest. Thus the best cluster is considered the cluster developed by Michael Porter as the „Four-Point Diamond" and his collaborators from Harvard Business School. The model comprises (1) corporate structure and competition, (2) local demand, (3) associated and supporting industries, (4) „factor conditions", defined as skills, infrastructure, capital etc. competition at the international and internal markets is high and it focuses the attention on policies to promote clusters mostly in innovation and development in view of the expected spillover effects of innovation. In such a setting the new public policies to promote clusters are targeted to choose better the areas of public funding and involvement in support of clusters.

At the present stage cluster policies are aimed at promoting innovation and strengthening the link between business and applied basic research and implementation of innovations.

Under the new policy approach to cluster development it is expected that the essential is the synergy of the different types of policies that can help business, employment and innovative growth through the implementation of innovation and investment in innovation.



At the contemporary stage the policies and strategies for cluster support are changing. The enterprises in the cluster make a network of their competences and potential and together create products and solutions that are flexible and quickly meet the needs of international markets. The unification of companies facilitates the communication, provides cheaper access to raw materials and energy, aids the introduction of more scientific and applied research, creates training and educational centers.

The new approach to the public policies to clusters acknowledges the role of clusters for to facilitate networking between the different social players involved in creating, transmitting and applying knowledge. It emphasises that the critical role of the public sector in creating an environment in which clusters can flourish, for instance by:

- Supporting cooperation between research institutes, educational bodies and clusters, particularly by creating joint centres for specialised training and/or starting up private-public initiatives in research and development;
- Facilitating coordination both within the cluster and with other clusters, and relations between clusters and public administrations;
- Defining strictly the role of public institutions for setting up and developing clusters;
- Simplifying administrative procedures and creating open public support initiatives in favour of regional development and enterprise competitiveness goals.

Having being supported by traditional type of public policy so far, the clusters created in Bulgaria develop a model of classical pyramid cluster group of interconnected, export-oriented industrial companies in the cluster.

With such an approach, important for the policy supporting the competitive clusters is the degree of the available and intended interlinkage of a group of companies, interested on the basis of sustainable legal foundations to share the advantages of the created network, in order to increase the added value and to make a more efficient use of the raw materials and human resources, available in the cluster.

The initiative to launch clusters in Bulgaria has been shared almost equally by the businesses and the government. In most cases however, the companies take the most active part in setting up and management of the initiative. The result is, that since 2004 the government and the businesses are interested in the development and the implementation of a joint Framework Competitiveness Program. The idea is that the cluster policy is based on public-private partnerships and in this sense the government should be involved with business support policies. This recognised policy should further promote the demand of better targeted policies and joint activities of the businesses and the government institutions.

The participation of Bulgaria in the EU funded programmes for the enhancing of enterprises' competitiveness has opened possibilities for new type of public policies which will be targeted to the creation, transfer and the implementation of knowledge

and imnnovations.The various founders of the cluster are interested in the new type of policies, and their better public management.

As we differentiate between local production systems which have developed into clusters and newly found clusters we consider that the process of setting up new type of clusters in Bulgaria started several years ago, but it is still in a very early stage. We could assert that the conditions for sustainable development of clusters are much in need to be improved in Bulgaria as the idea of this model is popular among the businesses and the public. Further we present some examples of good practices of the Bulgarian experience.

With foreign support of USAID and GTZ in 2001 and 2002 a series of studies on the potential for development of business networks and clusters were conducted in Bulgaria. These studies showed potential for the successful development of clusters in a number of sectors of the economy. The state recognized clusters as an instrument of potentially quick economic development and started stimulating them. A National policy for cluster development was formulated and financial and methodological support for existing and potential clusters materialized.

Two cluster grand programs of the Ministry of Economy, Energy and Tourism have been financed under PHARE Programme:

The first one, BG2003/004-937.02.03 “Introduction of cluster approach and establishment of cluster model”, ended successfully in 2006 with the development of a National Cluster Development Strategy, an Action Plan for implementation of the strategy and consultancy and investment support to two pilot clusters selected from amongst 40 existing or emerging clusters classified as worthy of state aid.

Under the second PHARE project from 2007 to 2009 ten clusters were supported.

ICT is one of the most dynamic sectors of the Bulgarian economy. In 2004 with the financial support of USAID, Bulgarian ICT Cluster was created. After many years of operation and development the organization gained a leading role in the cluster processes and cluster management in Bulgaria, especially in the field of ICT.

During the last 3 years, with the efforts of ICT Cluster, two clusters were created and received methodological and operational support:

Bulgarian Cluster „Telecommunications” (BCT) was founded under the initiative of ICT Cluster in the beginning of 2008 under a PHARE Project Establishment of Telecommunications Cluster and Development of Sustainable Cluster Strategy BG2005/017-586.04.02/ESC/G/CDI-II-003.

Cluster Microelectronics and Embedded Systems was founded in the beginning of 2010 year by 6 companies and 3 universities.

ICT Cluster supported methodologically the establishment of *ICT Cluster – Varna* and is one of the co-founders and driving forces of the *Association of Business Clusters in Bulgaria.*

The industrial copper-mining cluster "Srednogorie Med" is a positive example. It was established in 2005 encompassing the four large ore and non-ferrous metals

mining and processing industries in the region of the central Sredna Gora Mountain – Jumikor Med AD, Assarel Medet AD., Chelopech Mining EAD and Elatsite Med, which was founded today. The cluster has attracted companies and organizations to serve the industries. The founders of the cluster were 14 organizations, companies and institutions from five municipalities and two district administrations. The newly established cluster made use of the opportunities provided by the project enhancing competitiveness of the economy in Bulgaria amounting to EUR 39 mln. under the PHARE Program.

For the first time the funds have been targeted not at technical assistance, but directly as grants for Bulgarian enterprises. The first project for the Srednogorie Med Cluster is the gas supply network of the region.

Despite the clusters, launched in the recent years, or the concepts to set up clusters, in general the few clusters really function and meet the intended objectives. The activity on the government level could contribute to the further development of the clusters. The Ministry of Economy, Energy and Tourism has elaborated and stimulates clusters in the sector Wood-Logging – Processing – Furniture Production throughout the country. The study covered all the companies operating in these three sectors on the territory of all the districts and municipalities of the country by planning regions.

Among the main disadvantages of the Bulgarian experience with clusters one could point out first of all their formalisation in traditional mode and the insufficient severity and efficiency demanding on the side of the public authorities when creating clusters with public money. The clusters have been set up under opened tenders financed by PHARE, etc and not to settle specific problems in the included enterprises, the unspecified objectives to be implemented in their joint activities. There are weak links of the clusters with science, etc.

There are shortages in the promotion of the Bulgarian clusters abroad, their interrelations with the regions, training courses, information and enhancing the motivation of the industries in the advantages of the existence of clusters. The resulting clusters proved to be less adaptive and flexible to the rapidly changing environment. The policy focuses on upgrading and reproducing sustainable models of the current successful clusters. The success of their business will depend mostly on the degree of the applied knowledge, innovation activity and know-how.

Hence the challenges for the integration of the business development with science are important and require new approaches for a targeted policy. By providing adequate support of the fundamental research and applied sciences at the Bulgarian Academy of Sciences and the Universities through better coordination of the incentives of all actors in the national innovation system, the Government could motivate the synergy among research, human capital and business formation and thus to play a major role in the transition of the country to the economy of knowledge.

Foreign investments as a new driving force for clusters' creation

Foreign direct investments have become an important factor for the creation of new local production systems. Depending on the size, the time of entry in the country and the strategies pursued foreign investors in Bulgaria can be grouped in the following way:

- Transnationals aiming at developing, consolidating and defending their positions and advantages within the framework of a international oligopoly;
- Companies "followers", which attempt to improve their general positions utilizing specific opportunities of the Bulgarian market;
- Big groups or SMEs established on the market with stable positions and developed international trade contacts.

Typical for the first category is participation in privatization. The first steps in the privatization process were the result of the global strategy of transnationals for securing a place on the eastern markets. These involved the Belgian Amilum of Tate &Lyle (the Sara Lee group), which bought Maize Products (Razgrad). Following similar strategies Kraft Jacob Suchard bought Republica (Svoge), Danone bought Serdika (Sofia), etc.

Within this category can be found also "mixed" strategies – participation in privatization and "green field" investment. Shell and Macdonald's are a good example in this line.

Mainly companies from neighboring countries like Greece form the second group – the so-called "followers". Relatively uncompetitive on European markets they find considerable opportunities for expansion in Bulgaria.

Dow Chemicals can illustrate *the third group of foreign investors*, which has relations with many Bulgarian firms for years. Dow Chemicals is a shareholder in the joint venture CHIMTRADE, established in the past. They are presented in many CEE countries – Slovak Republic, Hungary, Poland. The example with the participation of the medium size German company Byk Gulden in the joint venture with the Medical Academy – MEDABYK is of a different character. Unlike Dow Chemicals, Byk Gulden are not a "leader" and searches for niches on Bulgarian market.

Clusters' creation seems not to be the main motivation of the foreign investors in Bulgaria. As revealed in a Special Survey of Foreign Investors in Bulgaria undertaken by the Agency of Foreign Investors the foreign companies, investing in Bulgaria try to achieve the following more important aims:

- Penetration of Bulgarian market and consolidating of the position before the entry of other competitors. The difficulties of Bulgarian enterprises and low competition potential are attractive factors for foreign investors and allow the extraction of high profits;
- Investments aimed at penetration of neighboring markets. Most probably this is the character of investments in the cement industry;

• Strengthening of the positions of the investor due to the relatively cheap skills and resources in Bulgaria (Solvey, Union-Miniere, Navan, etc.).

According to several surveys of the companies with FDI since 1995 until now, the foreign investments can be of the following types:

• Competition-reaction investment – aimed at higher competitiveness by making use of lower costs in Bulgaria;

• Market seeking investment;

• Investments with technological advantages.

The attitude towards clusters on the side of foreign investors has been supportive. At the same time most critical and demanding towards the resolution of problems of the institutional structures and legal treatment in the country are the big investors in industry where there has been a number of clusters created after the privatisation. Despite efforts to encourage clusters in industries, the segmentation in a given branch or sector remains high due to the way economic transition has occurred and the destructive nature of the policies that have failed to reform some of the big state owned industrial unities (holdings). The natural forces of agglomeration to attract investments and other assets in the same way have not worked well enough in favour of clusters with foreign investments too.

Clusters can compensate for some of these disadvantages by creating stronger linkages with other clusters offering complementary strengths. Changes in the global economic environment are also making cluster linkages more important. As firms internationalise their activities, it is important that cluster initiatives and organisations, which support them, internationalise too.

Although at international markets cluster firms and cluster organisations compete against each other - in particular those which belong to the same sector of activities - there are many reasons justifying competition and cooperation at the same time. There is scope for further strengthening cluster excellence through trans-national cluster cooperation at business level. This can include exchanging knowledge, market intelligence and qualified staff, sharing access to research and testing facilities, and developing new and better services to clustered firms, which will contribute to the creation of a common European research and innovation space.

Bulgaria has joined the EU cluster policies in favour of innovation and raising enterprise competitiveness.The openness of European businesses to cooperation with first-class knowledge hubs - both within and outside Europe - is a prerequisite for the emergence and growth of world-class clusters. Such openness is also necessary for staying competitive in the increasingly global business environment. Cluster cooperation can further contribute to the successful implementation of the shared visions of the Strategic Research Agendas developed by the European Technology Platforms. The next generation of Community cluster initiatives, namely under Europe INNOVA TM, Regions of Knowledge and the present cohesion policy objective European Territorial Cooperation, may be appropriate to boost cluster cooperation in the EU in a mutually reinforcing way and contribute to the creation of more world-class clusters in Europe, especially in areas with high

innovation potential such as those supported by the Lead Markets Initiative (EU, 2007) and other areas such as the maritime sector (EU,COM, 2007). Successful and appropriate tools and instruments developed and tested by these new cluster partnerships will be integrated and leveraged, as widely as possible, into the new Enterprise Europe Network.

Conclusion

Efforts at regional, national and EU level should facilitate the establishment of closer and more efficient linkages between clusters as well as with leading research institutes within Europe and abroad. At the same time, cluster organisations are invited to improve their support services and better integrate innovative SMEs into clusters.

The main institutions, organizations, or people who can support industrial development of the regions are considered to be the business representatives of the private and public sector enterprises, acting at regional level as well as regional associations and Government agencies. They may promote better initiatives for investment projects and the support of these projects to get funding in the country or abroad. The new type of industrial policy of the Government, which may lay a stress on the role of clusters, should be strongly recommended. Though the transition period so far has shown the inability of the former Governments to undertake industrial strategy in favour of sustainable regional economic development.

The EU commission has adopted a policy oriented to the support of clusters and their internationalization. Clusters play an important role in driving competitiveness, innovation and job creation in the EU (Spadmin, 2013). However, to fully reap the benefits of clusters, the EU should now step up its assistance to Member States and regions to promote excellence at all levels, and encourage cooperation across the EU in order to strive for more world-class clusters (EU, 2012). Clusters may become useful as linkages which through their openness, flexibility and attractiveness may create sustainable business nets available worldwide.

Bulgaria participates in the EU policy-oriented promotion of clusters and their internationalization. In the position of the European institutions, however, it has been underlined that the responsibility for overcoming the weaknesses of the market lies primarily with the Member States and regions, but the EU can help in some areas by promoting best practices that ensure the effective functioning of the single market and improve terms of the business environment so that businesses, including SMEs, to be able to compete globally sustainable. Clusters play an important role in creating competitiveness, innovation and jobs in the EU. However, to maximize clusters positive impact, the EU should increase its support to Member States and regions to promote achievement at all levels of cooperation within the EU and to strive for more world-class clusters (EC, 2012). Clusters can become profitable as links, rely on openness, flexibility and attractiveness and thus create sustainable business networks worldwide. The proposed regulations in favour of clusters complement previous EU initiatives under the strategy "Europe 2020" and

recognize the role of SMEs in the EU economic system. Clusters are able to slow down the weaknesses and instability in the operating environment of SMEs and even to help strengthening their competitiveness (EC,2012). The future establishment of the EU Programme for the Competitiveness of Enterprises and SMEs (2014-2020) complements previous EU initiatives under the strategy "Europe 2020" as a commitment to recognition of clusters as instrumental to competitiveness as a major and leading factor in ensuring sustainable economic growth and creating more jobs in the EU (EC, 2012).

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