### CHAPTER 1: GENERAL CONSIDERATIONS ON THE NOTION OF SOCIAL CLUSTER

## **1.1. WHAT IS A CLUSTER?**

**CLUSTER** - is a geographic concentration of economic entities (specialized suppliers, services providers, firms in related industries) and associated institutions (universities, research institutes, government agencies, professional training centers etc.) in some industries. The concept of cluster is introduced in the economic policy by Michael Porter and it is found in the Romanian legislation (GD 918/2006) which defines a cluster as a group of producers, users and/or beneficiaries, in order to implement best practices in the EU to increase the competitiveness of economic operators. Cluster, in specialized literature, is also known as "industrial district", "industrial agglomeration", "Business agglomeration", "Competence center".

Depending on the composition, there are two types of clusters:

**Triple helix**, when a number of companies work together - for example one provides raw material, another processes raw material, another gives a finished product form, another one distributes it, etc.- creating a cyclicality, a tradition of their cooperation. Alongside these interconnected companies, research institutes providing innovative solutions or universities that train specialists which can be used by the companies in the cluster are also found; regional, local public authorities are also involved, supporting their work.

Four clover (four-leaf clover), when a fourth actor is also included



- catalyst organization (companies specialized in technological transfer and innovation, technological transfer centers, professional associations, chambers of commerce and industry and/or other types of promoters).

# WHY BE PART OF A CLUSTER?

The geographical concentration of a particular industrial sector determines the supplier's specialization and a steady market for them. Thus, this leads to a competitive advantage, by improving the product quality and reducing costs. An industrial agglomeration of similar companies attracts, develops and benefits from a capital of labour force with a common set of qualifications.

On the other hand, employees have more economic security, because in the same geographical area there are several possible employers who need their skills. However, in the "business clusters", the companies have easier and faster access to the know-how of the concerned field of activity concerned. The involvement of academia and research and development brings the access to innovation specially created for the business area of the cluster. Authorities, through the support to these forms of organization, contribute to the increased economic development. Catalyst organizations contribute with expertise, but also benefits from the transfer of know-how.

Whatever the size, companies tend to become more efficient when they compete with each other and more creative when cooperate with each other. Essentially, this seems to be the motivation for the appearance of these economic structures called clusters. Agglomerations of cluster activities are not at all a recent phenomenon. Even the notion of cluster is not as new as you might think it was circulating as early as 1890, therefore, having more than one hundred years. Being for a long period in obscurity, the notion of cluster has been revived until 1970s, and



later, in the 1990s, it was put in the forefront and popularized in Michael Porter's studies. These have substantially contributed to the conceptual clarification of the clustering phenomenon, highlighting the mechanism and its dimensions and emphasizing the significance that it has in economic growth and raising competitiveness. More importantly, they have managed to draw attention to the potential of clusters to become an efficient instrument of development policy, arousing interest in investigating the domain both in academia and among economic policy makers in many countries, with the consequence of reorienting the attention of the academia from macroeconomic towards microeconomic foundations for prosperity and growth, and dragging the attention of the latter from interventions focused on individual economic entities, branches or activities, towards those directed into groups of interconnected companies and institutions. There are numerous examples of clusters around the world both in the sphere of material production and services. Among the best know are Silicon Valley or Route 128, Boston-USA (information and communication technologies); Detroit or Route 66 (automobile industry); Wall Street - New York, London, Tokyo, (financial services), Hollywood (cinematography); Fleet Street - London (press); Cambridge-Oxford U.K and Massachusetts US (educational services); Paris, Milan, New York (fashion); Bangalore-India (information technology); Holland (flowers), Germany (machinery and equipment), Hong Kong (business services), Norway and Holland (transport and logistics services), etc. 3 Clusters have developed successfully becoming examples of good practice both in large and small countries, regardless of their economic and cultural specific, and proved themselves beneficial for both, large firms activity, including transnational companies (TNCs), and especially for small and medium enterprises (SMEs). Therefore, despite the fact that it is a



relatively new area of research, appeared only in 1990, the development based on clusters has gained popularity among economic policy makers, reflected in programs and government policies supporting clusters in more than 50 economies. And in the EU member countries, old or new, the beneficial effects on competitiveness, productivity and growth of the cluster development are increasingly more recognized. Therefore, more and more of these countries are concerned with identifying and inventorying clusters, and the development of policies that encourage and support them, often placed at the foundation of their economic development strategies.

## WHAT CLUSTERS ARE AND WHAT THEY ARE NOT?

According to M. Porter's definition, clusters are interconnected groups of companies and institutions, located in close areas, operating in a particular field, connected to each other through common aspects, and also through complementarities (Porter M. 1990). They are agglomerations of formally independent companies, located in a relatively small geographic area, deploying similar activities, or contributing to the production of similar goods or services. Participants of a cluster face together the same threats and attempt to exploit the same opportunities, maintaining opened active channels of communication, dialogue and commercial trading, using the same specialized infrastructure and resources of the same markets, primarily labour and services. Although in the economic literature there is no generally accepted definition of the cluster, they mostly refer to the same few things in common:

Firstly, most of the definitions refer to the geographical extent of the cluster and the importance of spatial proximity;



Secondly, a cluster is a dynamic phenomenon, an essential characteristic of it being the functional relations between the participating organizations;

Thirdly, it is the idea of the importance of looking beyond individual activities and recognizing the fact that an individual company is part of a much larger industrial system.

Most authors argue in favour of a broader definition of clusters, which refers to both horizontal and vertical relations between participants and to mention both direct and indirect links between them;

Finally, another element present in many definitions is highlighting the role of social infrastructure, which is compulsory to facilitate the exchange of information, an essential ingredient of the effectiveness of any cluster, as, and if an economic agglomeration has all the features of a cluster, what emerges is not necessarily an efficient cluster. In order to be effective and to a have a dynamic nature, a cluster vitally needs social interaction, mutual trust between participants and a shared vision by all its members. A cluster includes not only the companies which deliver the product or the service which gives specifics, but also raw material suppliers, subcontractors, the suppliers of machinery and equipment, the exporters, the product buyers and distributors, the companies that provide needed services for the facilitation, direct or indirect, of the activities of the entire chain of production (education, vocational training, research and development, design, financing, logistics and transport, consultancy, advertising and promotion, lobby, legal services, etc.). They are joined by various supporting institutions, regulatory agencies, chambers of commerce, professional associations, non-governmental organizations, etc. All those participating in the cluster, involved in its activity and in its



problems and who are directly concerned in everything related to it, are stakeholders.

Why do companies that have the same profile, carry out similar activities or contribute to the development of similar products or services, choose to locate one near another?

The answer becomes obvious if we look at, and understand the cluster as being like a living organic system and not as a mere agglomeration of enterprises and institutions. As participants in a cluster are linked by countless formal and informal links through which they continuously interact, they become in some ways dependent on each other, but also they become more able to operate at higher parameters. From this perspective, the network of interrelations between the productive enterprises, support institutions and various service providers belonging to a cluster, is currently considered one of the important resources that a firm may have, like the financial resources, technological, knowledge and professional skills, or even more potent than these. All these varied and complex relations represent "the share capital" of the company, along with other form of capital "physical capital", "financial capital" and "human capital". Proximity, economies of agglomeration and economies of scale created, are the key arguments sought to increase the performance of companies which gathers in a cluster.

The cluster also allows the joint and more efficient operation of some resources and gives the opportunity to benefit from the externalities produced by other members who participate. The cooperation between companies, facilitated by spatial proximity but doubled by maintaining a strong competitive pressure, helps to increase performance of each component company and to maintain alive the creativity and desire for self-improvement.



The clusters are formed also because the spatial proximity of the companies, promotes the learning and developing skills processes (Lundvall B. 2003). They are attractive for the companies with the same profile or for those related to the concerned field of activity (for example social economy), precisely because newcomers are interested to exploit the common base of knowledge already created and to take part in the interactive learning processes that occur in a cluster.

From this point of view, clusters highlight two realities:

- a) jurisdiction is created over time, through interactive learning, which requires proximity;
- b) jurisdiction is strictly localized, being embedded in individuals, organizations, networks, and some of the knowledge is tacit and therefore difficult, or impossible to separate it from the cluster. The links established between the organizations belonging to a cluster allow each of the participants to be more productive and more innovative than they would have been if they had remained in isolation, and this becomes possible because the companies and the institutions from a cluster benefits from them (Ketels, C. 2004):

The proximity - essential for the sharing of some resources, including capture and exploitation of any positive externalities generated by the members of the cluster;

Connections - based on the common objectives of the participants, they allow exploiting the advantages of proximity and opportunity to engage in some form of formal collaboration (consortia of companies, supply chains, or networks) and informal collaboration;



Interaction - in addition to spatial proximity and interrelated activities, to determine the positive effects produced, specific to clusters, it requires a certain degree of interactivity between participating organizations.

Critical Mass – requires a sufficient number of participants to cluster in order for these interactions to have a significant impact on the performance of the involved companies.

## **CLUSTER-SPECIFIC FEATURES**

A. Size – is a parameter influenced by many factors: age of the cluster, the type of market in which it operates, the aspirations of involved entrepreneurs, the specifics of the business environment, etc. Although size gives some hints about the strength and the potential of the cluster, and, when a cluster is big, it attracts specialized labour force, suppliers, investments and institutions, all of which contribute to higher productivity of its companies, cannot be said, however, that the size is the main determinant of the economic success achieved by it. There are global clusters which group together a small number of manufacturing companies, but play an important role in the global market. Thus, for example, the cluster specializes in ham production from San Daniele, Italy, 12 of which belong under 30 enterprises, controls 15% of world export, and the ski boots manufacturing, concentrated in small and medium sized enterprises from Montebelluna-Treviso, region Venetto, Italy, holds over two thirds of global sales (Lianu, C. 2003). Meanwhile, other successful clusters include thousands of participants: knitwear cluster from Prato, Italy or of cotton knitwear from Tirumpur, India, each has 9000 component companies (Gulati, M., Sarkar, T., 2006).