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## Territorial Competitiveness in Romania – The Role of Economic Clusters

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## **Territorial Competitiveness in Romania – The Role of Economic Clusters**

Carmen Beatrice Pauna<sup>1</sup>, Nona Mihaela Chilian<sup>2</sup>

### *Abstract*

*Analyzing the competitive performance of Romanian industry, one may say that Romania has an economy based mainly on the manufacturing industry, characterized by features such as:*

- *high labor intensity, especially in industries such as textiles, knitwear, apparel, leather and footwear;*
- *high capital intensity, especially in industries such as metallurgy, yarns and fibers, cement, petrochemicals, milling;*
- *high energy consumption in almost all industries.*

*The result is a manufacturing industry with quite low level of labor skills and low level of the research-innovation-development triad. However, due to structural changes one may witness, on the one hand, the decline of the Romanian traditional industrial specializations and, on the other hand, the creation of modern industrial entities similar to the economic clusters promoted in the European economies. In this line of argument, the current paper attempts to answer questions such as: to what extent do clusters impact on territorial competitiveness in Romania and, in which areas of activity.*

*The correct identification of the current and potential comparative and competitive advantages and of their factors (costs, diversification, technological level, labor skills, innovation, etc.) at national, regional and intra-regional level and their use as bases for future actions, measures and policies in the domain of competitiveness are, in our opinion, some of the employable instruments required by the current economic crisis. An adequate diagnosis of the internal resources and competencies (especially of potential and underdeveloped advantages), of external opportunities and threats, and of their inter-linkages is necessary to set the competitiveness policies, strategies and actions on more sound foundations.*

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**JEL Classification: O25, R38, R58**

*Competitiveness* and *globalization*, as basic concepts in economic theory, occupy an increasingly important place in economic debates and studies. In terms of *competitiveness*, many papers show that competitiveness creation level is the microeconomic one, because firms are interacting in their efforts to entry, maintain on and develop in the markets. However, firms operating in an economic environment where the role of national and international economic frameworks in creating comparative and competitive advantages, especially in the context of globalization of economies, cannot be neglected. For Wignaraja G. (2001, p.4), a competitive economy is characterized by "rapidly growing exports of manufactured products combined with sustainable technological renewal and diversification".

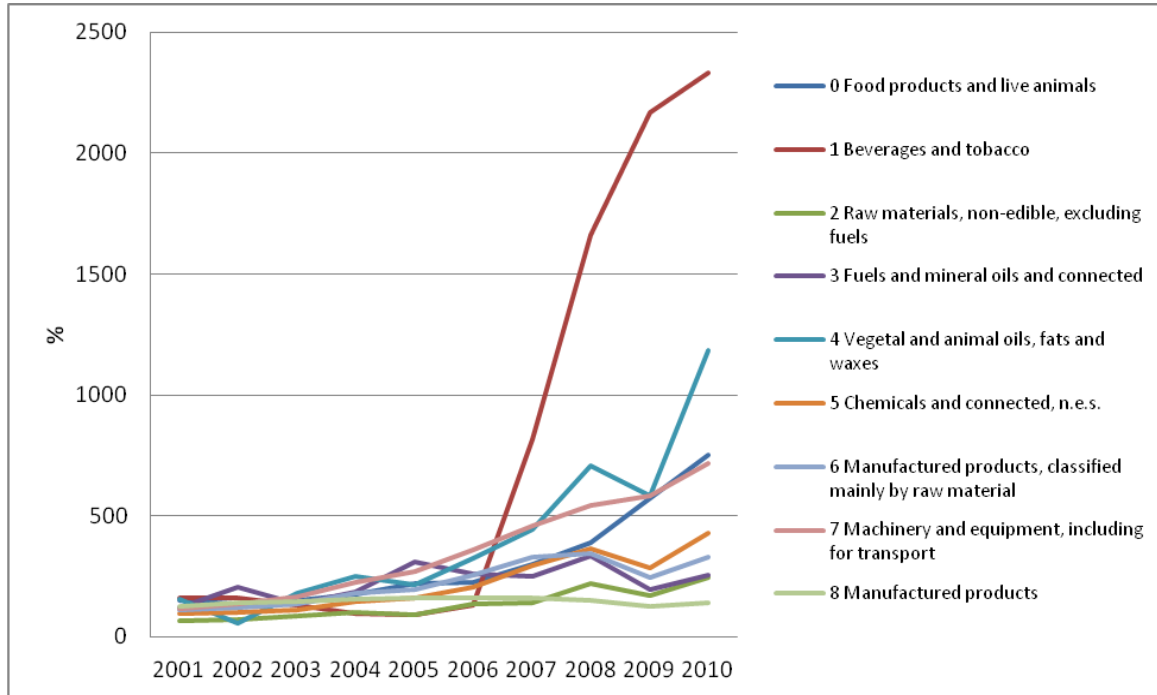
During 2000-2010, *total exports* of Romania in the European Union<sup>3</sup> registered a continuous growth, with the exception of 2009 (when the effects of the economic crisis started in 2008 were felt the strongest in the foreign trade of Romania to the EU, due to the high dependence on European trade partners). The trend of increasing Romanian exports to EU has accentuated after 2003, the total exports of Romania to the EU markets was 2.3 times higher in 2010 than in 2000. The largest increases have been recorded by the product groups 1 - *Beverages and tobacco* (after 2006), 4 - *Animal and vegetable oils, fats and waxes* (also after 2006), 7 - *Machinery and equipment, including for transport* (after 2003) and 5 - *Chemicals and related* (after 2005 - see Figure 7). Also, the subgroups of products increases that far exceed the average level of the groups were recorded for subgroups<sup>4</sup>: 09 – *Miscellaneous food products*, 04 - *Cereals and cereal products*, 12 - *Tobacco and tobacco products*, 22 – *Oilseeds and fruits*, 26 - *Textile fibers and wastes*, 42 – *Vegetable oils and fats*, 54 - *Medicinal and pharmaceutical products*, 59 – *Chemicals and chemical products*, 62 – *Rubber products*, 78 – *Road transport vehicles* and 87 - *Professional, scientific and measuring and control instruments and apparatus*. The only subgroup of products with decreasing (by approx. 10%) exports from 2010 to 2000 was 84 - *Clothing and clothing accessories*.

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<sup>3</sup> The intra-EU27 exports and imports of the EU member states were considered, by SITC product groups and subgroups.

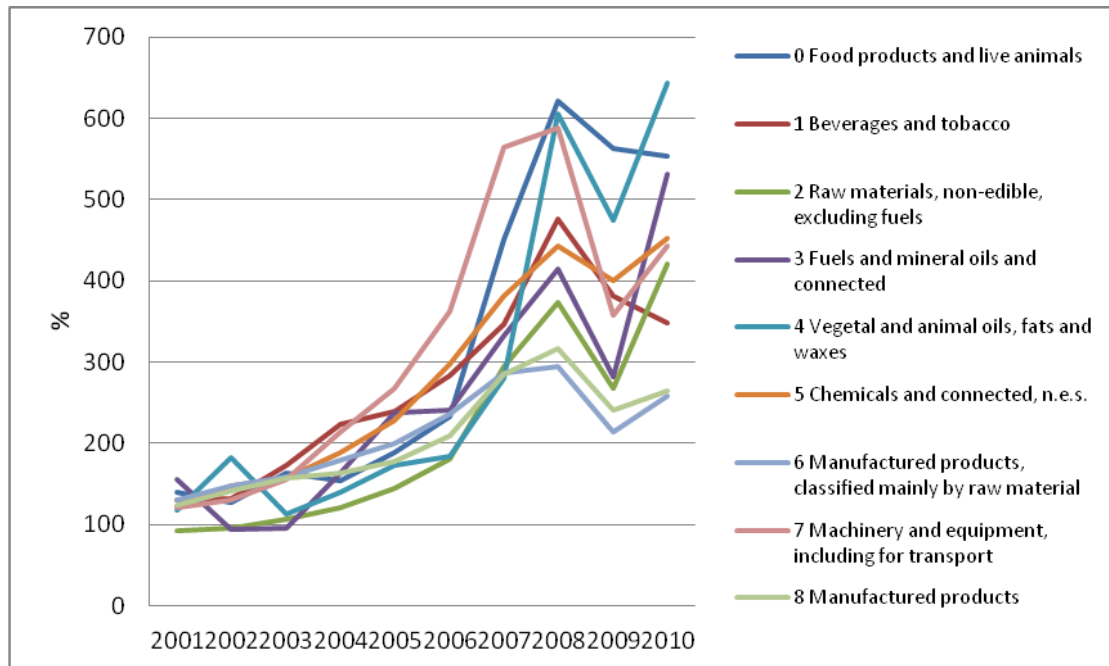
<sup>4</sup> Detailed results by subgroups of products were not included due to space restrictions; they may be provided upon request.

**Figure 1. Romanian Exports in the EU by Main Groups of Products, 2000 = 100 (%)**



During 2000-2010, the *total imports* of Romania from the European Union showed annual increases greater than the exports by 2008, followed by a significant decline in 2009 (a decrease by 28.6%), as a result of crisis-induced adjustments in the Romanian economy, by reducing both domestic and foreign demand. Throughout the period 2000-2010, import growth was even more significant than that of exports by 2008, both overall (by almost 3.3 times) and for the main product groups. The largest increases were recorded by groups 0 - *Food and live animals*, 4 - *Vegetable and animal oils, fats and waxes* and 7 - *Machinery and equipment, including for transport*, a similar bias in import growth at both ends of the spectrum of technological development being noticeable (Figure 2).

**Figure 2. Romanian Imports from the EU by Main Product Groups, 2000 = 100 (%)**



Analysis of Romania's foreign trade with the EU highlighted, especially in the pre-accession period, a "specialization" especially in providing products and services with low added value and high consumption of labor and energy, but higher-tech products recorded significant increase in share in recent years. In terms of capital-intensive products, most Romanian products with significant shares on the EU market and comparative advantage also recorded significant shares in the country's total exports. However, some products or groups of such products which had important shares in Romanian exports did not also register comparative advantages, or only some very small ones. Paradoxically or not, the economic crisis led to an improvement in recent years in the relative competitive position of Romania, but especially on account of adjustments induced by reduction in imports caused by the economic crisis.

Analysis of Romania's international specialization pattern in terms of comparative advantage shows the location of our country's economy still in the phase of advantages based on factors of production, the current international specialization of Romania being still confined mainly in the sectors of labor-intensive goods and standardized industrial products in the maturity stage of their life cycle. From this point of view, Romania is competitive in industries that require low

processing technology, cheap and widely accessible. Also, it should be noted that the EU is the main commercial partner of Romania, representing a market for much of Romania's exports of industrial products, and the negative side of this situation was fully felt in 2009, when the European partners import demand reduction led to an important rebound of Romanian exports to the intra-EU market. The feature of the Romanian exports to the EU is their high concentration in a not very large number of groups and subgroups of products, such as textiles and clothing, footwear, furniture, articles of iron and steel and, in recent years, machinery and production equipment, household equipment, telecommunications equipment and vehicles. As regards imports, they consist mainly of machinery and equipment, chemicals, transport means and materials, imports of raw material processed in the system for future export contracts, raw products, agricultural products and foodstuffs.

Finally, the structural changes in the evolution of Romanian exports and imports to/from the European markets, in the percentages of groups/subgroups of products and in the dynamics of comparative advantages/disadvantages received new impetus as a result of the economic crisis triggered in 2008, whose effects are far to be mitigated, especially when the prospect of a new recession is looming again over Europe.

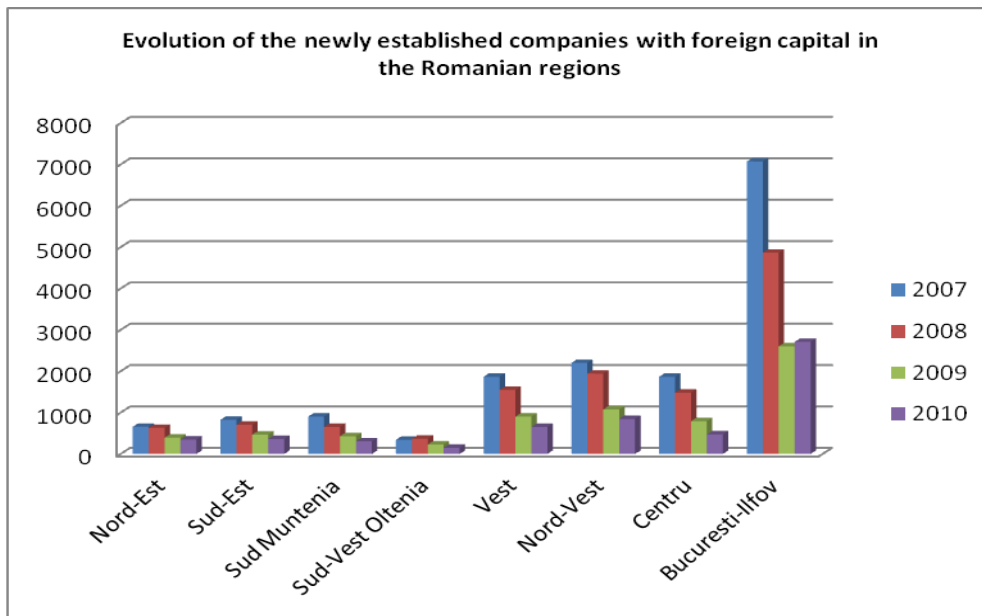
For many countries, attracting foreign direct investments (FDI) turned from an important tool of governments in securing economic development of territories and good functioning of the economies to almost an end in itself, but there is wide consensus that attractiveness to FDI is sign of economic functionality and good performance. This is even truer in times of economic upheaval, when the national and regional/local authorities and policy makers' efforts focus at least on finding ways to retain the existing investors if not to attract new ones. Unfortunately, during the global crisis that swept the world economies since 2008, Romania experienced a significant decline in FDI, as the current analysis shows. Indicators referring to the number of newly established companies, to the capital increase operations at the companies with foreign capital, the erasures of companies with foreign capital and the gross foreign investment were used.

In order to analyze the foreign direct investments dynamics in Romania over the post-accession (2007 to 2010) data on *new foreign investments*, on *capital increase operations at companies with foreign capital* and on *erasures of companies with foreign capital* were used

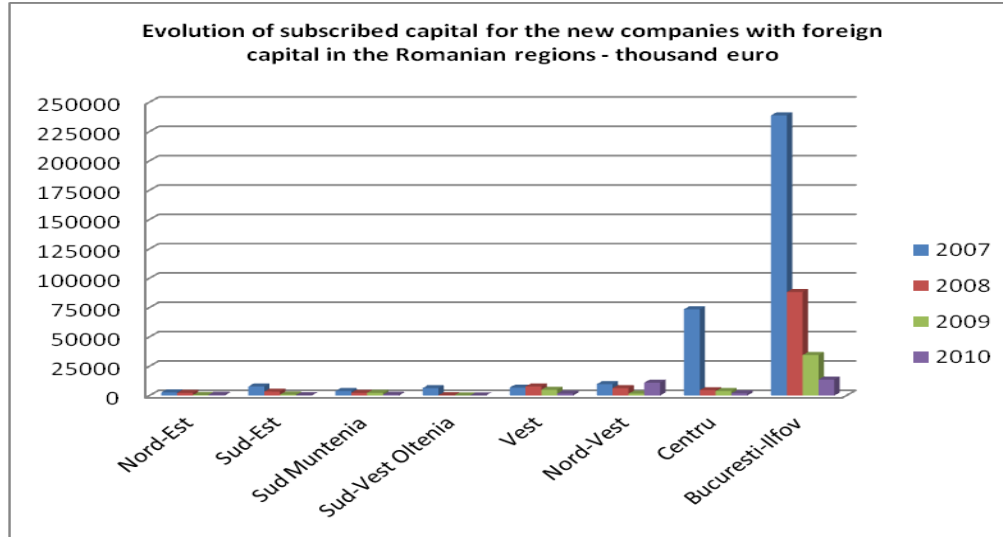
(number of companies and subscribed capital in euro, per development regions), processed on the basis of the monthly data released by the National Trade Registry.

The annual dynamics of the *establishment of new companies* revealed an overall downward trend, but with significant discrepancies among the regions (Figure 3). Thus, the most severe drops were recorded by the most developed regions (București-Ilfov – except for 2010, Vest, Nord-Vest and Centru). The discrepancies are even higher if one analyzes the evolution of *capital subscribed for the new companies with foreign capital* – against an overall downward trend, the drop was most severe for the București-Ilfov and Sud-Vest Oltenia regions (placed at the highest and lowest end of the development axis), while the Nord-Est and Nord-Vest regions experienced a slight increase in 2010 as compared to the previous year (Figure 4).

**Figure 3**

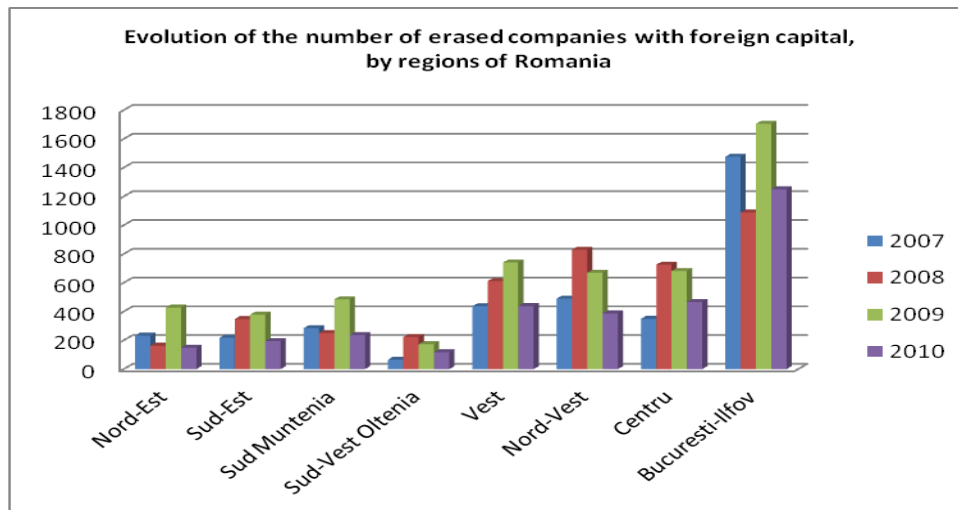


**Figure 4**

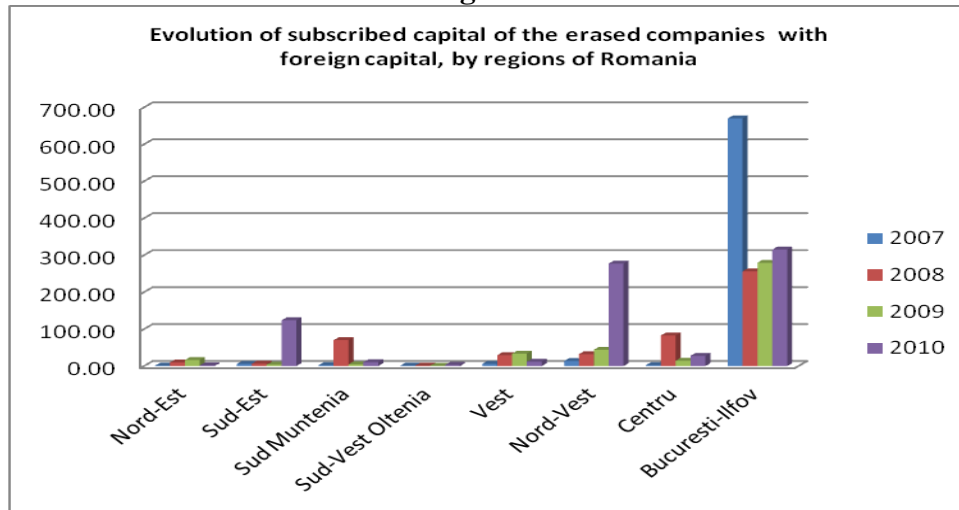


The dynamics of *erased companies with foreign capital* reveal an interval of increase in numbers until 2009, namely during the interval of maximum impact of economic crisis. At regional level, the dynamics were similar (Figure x9).

**Figure 5**





**Figure 6**

Finally, the dynamics of *gross foreign investment*<sup>5</sup>, reveals for the Romanian economy a significant decline in 2009 followed by a recovery in 2010, while in the case of the regions each of them registered oscillatory evolutions (except for the Sud-Est region – see Table x1). A single region (Nord-Vest) registered negative gross FDI in 2010, but significant declines were also registered by other regions in the same year, except for the Sud-Est, Centru and București-Ilfov regions. This may point towards a cautious (at best) perspective of the foreign investors on the likely beginning of economic recovery in Romania after the global crisis of 2008 and 2009.

**Table 1****Gross foreign direct investment, by regions of Romania - mill. Euro**

| Regions          | 2007   | 2008   | 2009   | 2010   |
|------------------|--------|--------|--------|--------|
| Romania          | 4318.0 | 5031.6 | 4347.4 | 5225.5 |
| Nord-Est         | 152.1  | 560.3  | 411.7  | 194.1  |
| Sud-Est          | 80.8   | 75.0   | 114.6  | 276.8  |
| Sud Muntenia     | 202.6  | 104.4  | 181.1  | 158.6  |
| Sud-Vest Oltenia | 167.4  | 83.7   | 424.4  | 128.8  |
| Vest             | 101.5  | 234.7  | 521.8  | 355.3  |
| Nord-Vest        | 85.1   | 190.2  | 332.3  | -97.8  |
| Centru           | 349.9  | 652.4  | 415.4  | 483.1  |
| Bucuresti-Ilfov  | 1443.7 | 3130.9 | 1946.2 | 3316.6 |

Source: Authors' computations.

<sup>5</sup> Calculated according to the relationship  $I = N + M - R$ , where N is the new foreign investments, M is the capital increases for the companies with foreign capital and R is the companies with foreign capital erasures.

Policies related to clusters are often seen as a tool for improving national and regional competitiveness, which in turn, explains why only a small number of these programs have an international dimension. This perception of national and regional approach began to change. Taking into account the effects of globalization which strengthen the competition between different locations – which lead to new horizons between firms, along different value chains – transnational clusters appear in a different light.

There is growing recognition that a country cannot remain competitive without a certain degree of specialization. At the lowest level, mutual learning is the key reason for closer cooperation between those responsible for cluster policies and programs for clusters.

Different countries may have a common interest in the endeavor to build strong clusters or to boost the cooperation itself between clusters within a specific region. They can use the same specialized research infrastructure facilities and the same testing capabilities; they can also encourage cross-border transfer of knowledge. This requires designing of a common long-term strategy to facilitate the development of strong global clusters. This ambitious type of cluster cooperation may be limited, in the early stages, to cross-border cooperation between regions with common cultural identity, such as the Baltic Sea region and Central Europe. For these reasons it can be concluded that, although transnational clusters would be a great benefit for all, it is unlikely to occur spontaneously. Most often, such cooperation remains limited to the same region, although common problems could be better solved by more extensive cooperation. Therefore the European Community tools, that facilitate transnational cluster cooperation, could offer greater benefits. In this respect, it is necessary to address and develop the strategic dimension of transnational cluster cooperation.

European initiatives to support clusters should be as largely complementary to national and regional efforts, to better exploit synergies and to better support country-specific priorities. On the other hand, regions and Member States should find any use for maximum benefits offered by community financial instruments to strengthen their clusters, to open them for transnational cooperation.

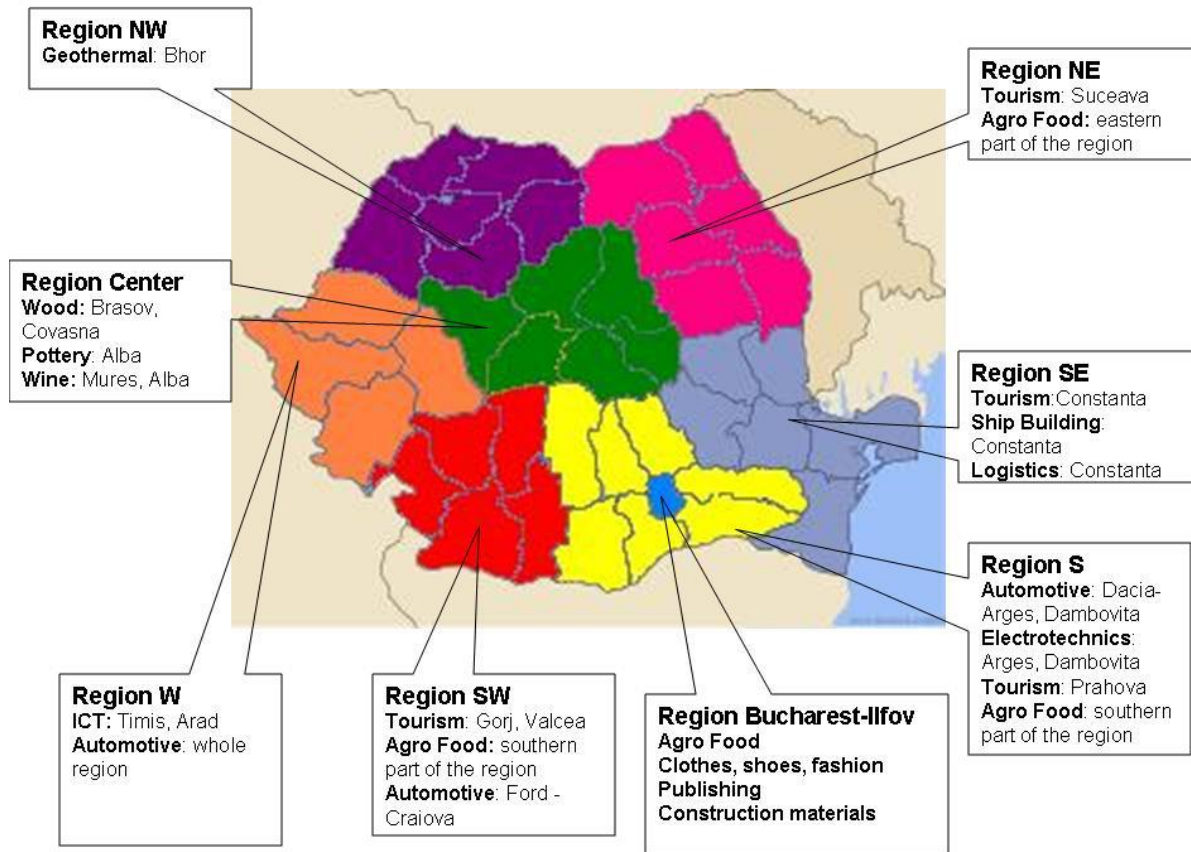
Provision by the European Cluster Observatory of neutral and comparable information about clusters and cluster policies in Member States, represents a major contribution to promote

mutual learning of policies at EU level and to promote evidence-based policy approach for supporting clusters.

Moreover, the provision of policy learning platforms that enable Member States and regions to learn from each other, in order to be able to formulate coherent policies that support clusters, is an perfect example of how the Community supports policies for cooperation among transnational clusters. This type of support includes removal of barriers, development and testing with new policy instruments for SMEs. Two of these networks, that were created with representatives of national and regional governments and with innovation agencies, are engaged in bringing together cluster programs located in certain geographical regions such as the Baltic Sea Region and Central Europe; while the other two initiatives, are aimed at developing joint actions in the field of technology transfers, improving technology and the internationalization of SMEs, involved in specific clusters.

One of the most recent cluster mapping exercise in Romania shows the situation of the romanian clusters according to the following map.

## Romanian Clusters



Source: Guth, M (2010), ZENIT GmbH, Daniel Cosnita, Inno Consult – *Clusters and Potential Clusters in Romania*

As example of one of the most recent exercise regarding the transnational clusters in Europe is the recently finished projekt Adriatic Danubian Clustering (ADC).

The Project "Adriatic Danube Clustering" (ADC) is one of the numerous projects that implement the European Union policy of support for cluster-based economic development. This project is financed as part of the Transnational Cooperation Program for South-East Europe 2007-2013, a program with European funding in which Romania has the Institute for Economic Forecasting as partner in the project. The Institute for Economic Forecasting is running the ADC project in partnership with other eight countries in the Adriatic-Danube region, Italy, Serbia, Slovenia, Bulgaria, Croatia, Montenegro and Bosnia-Herzegovina.

The ADC Project intended to identify in each partner country in the Adriatic-Danube area companies and/or clusters that have been built or are in the process of being built and have activities in strategic and competitive sectors of the economy of the nine countries and that are of common interest for all the partners in the project, for the purpose of supporting them in the process of development following opportunities of transnational cooperation in general and cooperation among the countries in the project, in particular.

In some European areas there are thousands of active companies with quite similar profiles, but the information about the potential for cooperation among the countries in the area is scarce because of the lack of visibility of SME-s, in general, and of transnational connections between companies and the supporting organizations, in particular.

To overcome the current situation which is characterized by this lack of an exchange of information among the European zones on the potential for entrepreneurial cooperation, it is necessary to have a common European concept and an active implication of the appropriate supporting organizations.

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