



## INCREASING THE COMPETITIVENESS OF COMPANIES IN THE TEXTILE AND CLOTHING DOMAIN AND INTEGRATION IN INNOVATIVE CLUSTERS

OLARU Sabina<sup>1</sup>, BUCUR Daniela<sup>1</sup>, POPESCU Georgeta<sup>1</sup>, RADULESCU Razvan<sup>1</sup>

<sup>1</sup>National R&D Institute for Textiles and Leather, Lucretiu Patrascanu Street, no. 16, domain 3,  
Postal code 030508, Bucharest, ROMANIA, E-Mail: [certex@certex.ro](mailto:certex@certex.ro)

Corresponding author: Olaru Sabina, [sabina.olaru@certex.ro](mailto:sabina.olaru@certex.ro)

**Abstract:** *Successful businesses require access to knowledge and highly qualified workforce, faster access in finding suppliers, customers, competitors, educational institutions and research laboratories, specialized social assistance, in a more concentrated manner. These goals can be best achieved through clustering. Cluster formation is facilitated by the following actions: dynamic analysis and continuous communication of the vision, implementation of the strategy, implementation of the action plan and meetings between stakeholders.*

*The paper presents the clusters of the textile and clothing domain in Romania and the analysis of their key economic indicators. The turnover performed in 2014 by the enterprises producing textiles and clothing within the 4 Romanian clusters was about 1.09 billion lei, employing a staff of approximately 7416 people. It was seen that for 2014, Romanian Textile Concept brought together more than 2754 employees, Traditii Manufactura Viitor 2565 employees, ASTRICO 1958 employees and Transylvania Textile&Fashion with 139 employees.*

*Clusters have the potential to create ecosystems favorable to innovation for strengthening SMEs groups, in which their needs can be better exploited as a way to promote economic growth. As a perspective, one of the recommendations of the EU is to invest in social innovation activities. Each cluster is unique, differentiating itself by objectives, number of enterprises, composition, size, flexibility etc.*

**Key words:** *cluster, innovative cluster, textile, clothing textiles and garments*

### 1. INTRODUCTION

The *cluster* is defined as a geographical concentration of competitive enterprises in an industry or service area that do business with each other [1]. Clusters represent a new way of thinking about the nation, state, local economy and give a new role to corporations, governments and other institutions for the purpose of increasing competitiveness.

Up to 20-30 years ago, the development strategy of a region was linearly (infrastructure building, investments in specific facilities, tax concessions, reduced maintenance costs), while today the successful businesses have more complex needs.

Successful businesses require access to knowledge and highly qualified workforce, faster access in finding suppliers, customers, competitors, educational institutions, research laboratories and specialized social assistance, in a more concentrated manner. These goals can be best achieved through clustering. The clusters model generated in the US was quickly adopted in the European Union, in practically all areas of activity [2]. Apparently, at the time of globalization, the importance

of clusters should decrease. An opposite development was observed, with an increased role of clusters in a complex, dynamic and knowledge-based economy [3].

The widely accepted model of cluster partnership based on innovation is one called "triple helix" [4], which brings together representatives from industry, research institutes and universities (representing providers of innovative solutions applicable to the real needs of enterprises in cluster) and representatives from local and regional government etc.

Thus, innovative clusters are a step forward as they ensure economic growth at regional and national level through cooperation of companies at a higher level as cluster components, leading them to operate in an integrated system. Thus, on a higher level, the network acquires benefits of diversity and complementarity, as well as the intense compensation between the activities involved, similarly to those of large organizations.

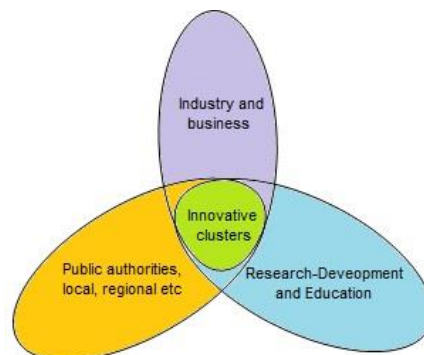


Fig. 1: "Triple helix" model for an innovative cluster

## 2. CLUSTERIZATION AT NATIONAL LEVEL

Cluster formation involves the following steps [5]:

- a) *Analysis*, which includes: statistical analysis, interviews in companies, expert opinions, identification of opportunities;
- b) *Preparation*, which includes: consulting, informative meetings, discussions, planning, debates;
- c) *Strategy*, which includes: development directions, communication, consultation, branding, coordination;
- d) *Organization*, which includes: training, human resources management;
- e) *Action*, represented by: projects, cooperation, facilities, innovation.

Cluster formation is facilitated by the following actions: dynamic analysis and continuous communication of the vision, implementation of the strategy, implementation of the action plan and meetings between stakeholders. Cluster formation is also supported by neutral communication, good listening abilities, good interpersonal skills and the experience in multiple domains.

The textile and clothing industry has a long tradition, representing one of the traditional industrial domains of the European economy. Although global competition is fierce and the industry suffered a significant relocation of manufacturing in countries with low labor costs, textiles continue to represent one of the basic industrial domains of the European economy [6].

In order to be competitive on the world market, the European textile-clothing industry has focused its efforts on marketing (eg. design and brands) and on optimizing the supply management, in order to provide products with high added value on short term. Competitiveness depends



considerably on the ability of developing innovative products and processes, and thus, the textile industry has invested in research and implementation of new technologies.

Regarding the *cluster formation process in Romania*, within the textile-clothing domain, the following relevant issues can be mentioned:

- individual companies, especially SMEs, which usually represent the T&C industry, do not have the power to challenge the mature market, hence a solution to this problem are clusters, that can be supportive environments for cooperation in business, trade, communication, law, legislation etc.

- Romanian T&C companies have to give up their advantage of low labor cost and conquer a top position in the external market, namely the segment of medium and high priced-products, with high quality and a strong image brand, achieved through a substantial investment in design, creation, marketing and promotion.

At the moment, the database of the Ministry of Economy, Trade and Relations with Business Environment - Directorate of Industrial and Environmental Policy includes 88 clusters and competitiveness poles, of which 28 received the Bronze label and 8 received the Silver label after benchmarking studies conducted by experts of ESCA [7]. These were economic structures that could establish a partnership agreement between the various actors, representing 4 types of organizations (Romanian model): within the "Four leaf clover": industry - research - public authorities - catalyst organizations.

### 3. CLUSTERS IN THE TEXTILE-CLOTHING DOMAIN

Four clusters in the textile-clothing domain are operating in Romania, being members of the Romanian Cluster Association. *The National R&D Institute for Textiles and Leather – INCDTP* [8] is member of all the 4 clusters representing this domain.

Depending on the region, the textile clusters in Romania are:

- In the Bucharest - Ilfov Region and South - Est Region, is located the cluster *Romanian Textile Concept - RTxC* [9], comprising 36 representatives from the economic environment based on an association consisting of 10 manufacturing companies with old tradition in the clothing, knitwear, shoes and leather goods industry.

- In the North – East Region, is located the cluster *ASTRICO NE* [10]. The association of producers ASTRICO operates for a long time, being a powerful industrial group for production and marketing of knitwear, based on the company Rifil, the leading producer of yarn for knitwear in Eastern Europe. The industrial group works mostly for export to the European market and is composed of 25 companies: a spinning representative for the Romanian industry - RIFIL and 24 manufacturers of knitwear and knitted garments.

- In South - East Region, is located the cluster *Tradiții Manufactura Viitor - TMV Sud –Est* [11]. The objective of this cluster is to focus on activities and products with focus on creativity and technology, on increasing the consumer awareness and interest towards fashion, on stabilizing and improving the workforce in the area, on attracting new companies and last but not least, on the creation of a regional brand. The companies of the cluster represent the industrial domain and are both large companies and small and medium companies (SMEs), while their experience is based on more than 15 years production in clothing.

- In the Central Region is located the cluster *Transylvania Textiles & Fashion- TT&F* [12], which aims at strengthening relations already existing in the domain of students internships and training of specialists, but also at identifying all opportunities for performing of innovative products with increased added value, by means of technological transfer and applied research. The group is representative for the economic environment and it consists of 20 companies.

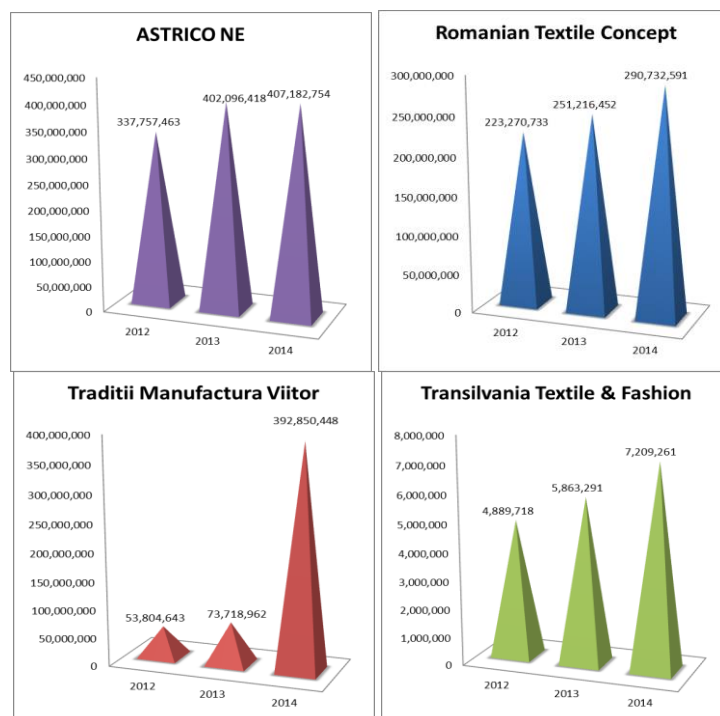
The cluster Romanian Textile Concept has the SILVER LABEL for cluster management awarded by ESCA (European Secretariat for Cluster Analysis) [13]. The other clusters in the T&C have awarded the BRONZE LABEL, too.

In 2015, the *Competitiveness pole in the textile and clothing industry NOATEX* was created. It brings together companies from the textile and related domains from all over Romania, research institutions, administrative units and catalyst organizations.

INCDTP is an active member in all 4 Romanian textile clusters and in the NOATEX pole. INCDTP is also member of the Romanian Cluster Association – CLUSTERO [14], through its cluster membership.

#### 4. ANALYSIS OF ECONOMIC INDICATORS OBTAINED BY CLUSTERS OF TEXTILE-CLOTHING DOMAIN

The analysis of economic indicators obtained by the textile-clothing clusters was performed within INCDTP. Figure 2 presents the evolution of the *turnover* indicator for each of the Romanian textile clusters. The values shown in the graphs represent the cumulative value of the turnover only for manufacturing companies representing business environment. It has to be underlined that all cluster's turnover recorded an uptrend in the period 2012-2014 [15].



*Fig. 2: Turnover in lei, evolution for enterprises in the textile clusters in Romania*

Comparing each cluster contribution to the total of this indicator (for the year 2014), the figures were: ASTRICO 37.08% , Traditii Manfactura Viitor 35.78%, Romanian Textile Concept 26.48% and Transilvania Textile&Fashion 0.66%.

Analyzing the evolution of the percentage of the total turnover of textile clusters in the turnover achieved nationwide by the textile-clothing industry, growth was registered from 4,3% in 2012 to 6,9% in 2014 (Figure 3).

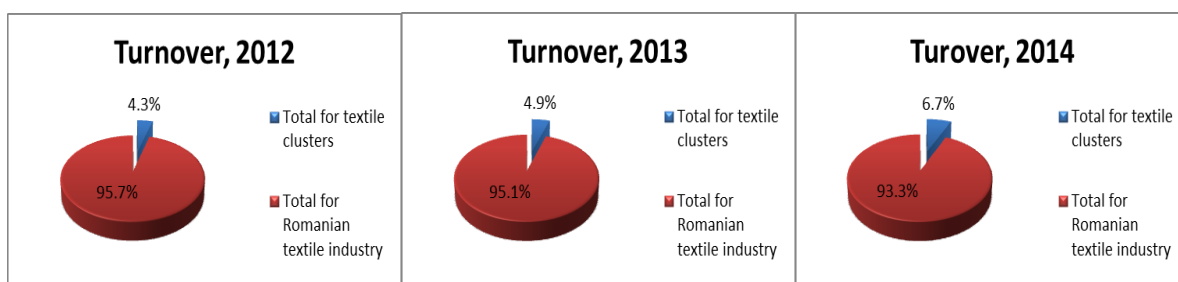


Fig.3: Turnover for the textile clusters from the total for the Romanian textile-clothing industry

The analysis of the graph in Figure 4 shows the *cumulative number of employees for textile clusters* and also the ranking of clusters depending on the number of employees.

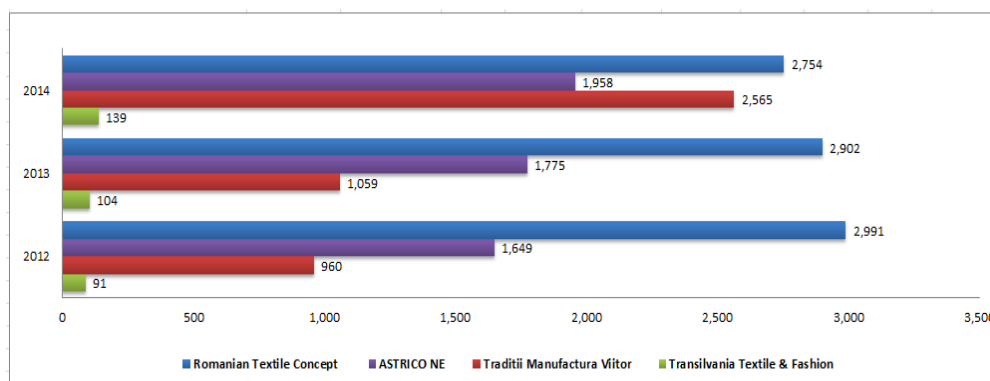


Fig. 4: Total number of employees for the textile clusters in Romania

It can be underlined, that in 2014, Romanian Textile Concept brought together more than 2754 employees, Traditii Manufatura Viitor 2565 employees, ASTRICO 1958 employees and the last Transylvania Textile&Fashion with 139 employees. Analyzing the evolution of the cumulative number of employees for textile clusters in the number of employees at the country level in the textile-clothing industry, it was registered a growth from 2.9% in 2012 to 3.29% in 2014 (Figure 5).

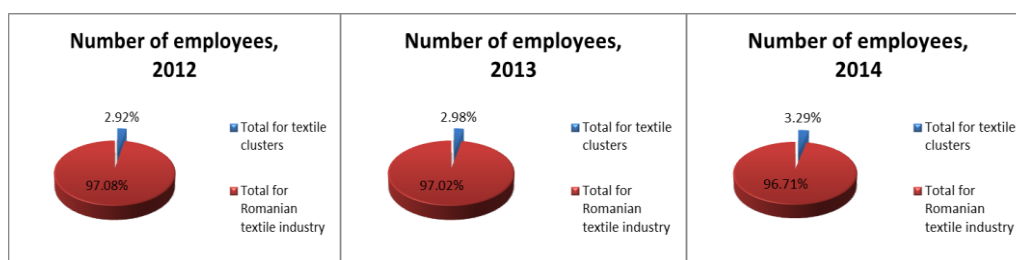


Fig. 5: Total number of employees in the textile clusters from the total for the Romanian T&C industry

The turnover performed in 2014 by the enterprises producing textiles and clothing within the 4 Romanian clusters was about 1.09 billion lei, while employing a staff of approximately 7416 people.



## 5. CONCLUSIONS

Clusters have the potential to create ecosystems favorable to innovation, for strengthening SMEs groups in which their needs can be better exploited as a way to promote economic growth. From the comparison between the results of the clusters to the overall results of the industry during the same years (sales and employment), it can be concluded, that clustering has an positive impact on the business environment.

The European Commission will facilitate matchmaking events for integrating SMEs into clusters of excellence and European value chains. Focus will not be limited to industrial domains, but will also facilitate cross-domain and cross-border collaboration and innovation.

As a perspective, in EU one of the recommendations is to invest in social innovation activities. Each cluster is unique, differentiating itself by objectives, number of enterprises, composition, size, flexibility etc. Three factors are critical to the success of the cluster: collaboration, cluster management skills and innovation capability.

## ACKNOWLEDGEMENTS

**This paper was elaborated as part of the Nucleu program, executed with the support of ANCSI, project no. PN 16 34 05 04.**

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