

Cluster Policy and Smart Specialisation—The Case of Bulgaria

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Smart specialisation is an innovative policy concept which emphasizes the principle of prioritisation in a vertical logic and has attracted a wide interest in recent years, being implemented in many national technology and innovation strategies. Clusters are considered to be a major driver of innovation and competitiveness and for years, have been assigned a key role in various economic development strategies around the world. The paper looks at the interrelationship between clusters and smart specialisation. While clusters are an important building block of Smart Specialisation Strategies (S3), cluster policies are also influenced by the concept of smart specialisation as they have increasingly started to target specific industries. The principal objective of the paper is to provide an overview and evaluation of the cluster policy pursued in Bulgaria during the last decade. The extent to which the country has used the principle of smart specialisation in its cluster initiatives is assessed. It has been argued that namely due to the lack of clear focus and prioritisation, Bulgaria's cluster policy proved to be highly inefficient. Finally, some policy recommendations for its improvement are put forward.

Keywords: cluster policy, competitiveness, industrial clusters, smart specialisation

After its popularization by Porter in 1990, the concept of clusters has gained a growing importance, reflected in the proliferation of policies and initiatives in support of clusters all around the world. Empirical evidence clearly shows that clusters are significantly related to innovation and prosperity (European Commission, 2013a). They are thus increasingly seen as catalysts for accelerating industrial transformation and for developing new regional competitive advantages, speeding up the creation of firms and jobs, increasing their productivity, and driving innovation, thereby contributing to competitiveness and growth. Therefore, clusters have become important instruments for the implementation of almost any modern economic development strategy. They have been assigned a prominent role in the European Union (EU)'s Europe 2020 strategy as well. The flagship initiatives "Innovation Union" and "An Integrated Industrial Policy for the Globalisation Era" specifically refer to clusters and networks as critical tools.

According to Porter (2007), a significant merit of cluster-based policies is that unlike traditional industrial policies, they do not distort competition by favouring particular type of activity, as there is no need of "picking winners". As the existence of any cluster is good for the economy, governments should not choose among clusters, but have to create policies that support upgrading in every cluster present in a location.

However, not all clusters can have the same impact on competitiveness and industrial development of a nation. Porter (2003) himself recognizes that export-oriented clusters register higher wages, productivity, and innovation than the non-tradable ones. Moreover, the scarcity of public resources available for support dictates

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a pursuit of their most efficient utilization. This in line with the concept of smart specialisation, necessitates setting priorities, i.e., targeting those clusters whose development will be purposefully stimulated. As Velev (2007) states, in practice, countries and regions with several identified clusters develop their cluster portfolio, ranking clusters by their importance for the economic development and competitiveness. Thereby, the priorities for the realisation of the cluster approach are determined.

In this context, the main objective of the paper is after presenting the concept of smart specialisation and its interaction with that of clusters, to provide an overview and evaluation of the cluster policy pursued in Bulgaria during the last decade. The extent to which the country has used the principle of smart specialisation in its cluster initiatives will be assessed, and finally, some policy recommendations for its improvement are going to be formulated.

Clusters and Smart Specialisation—Concepts and Relationship

There are many definitions of clusters in the literature which are context specific. The original definition for clusters provided by Porter (1990) is: “Clusters are geographic concentrations of interconnected companies, specialized suppliers and service providers, firms in related industries, and associated institutions (for example, universities, standards agencies, and trade associations) in particular fields that compete but also co-operate”. Industrial clusters can increase productivity through linkages, spill-overs, and synergies across firms and associated institutions and through efficient access to public goods, specialised knowledge, workers and suppliers, better coordination, and the diffusion of best practices. Therefore, they are largely considered to be drivers of economic growth, innovation, and competitiveness.

Industrial clusters are mostly a market-driven phenomenon evolving spontaneously over decades as a result of natural competitive advantages. However, well-designed and implemented cluster policies can accelerate the process and provide a much-needed initial platform on which to grow in output and maturity. Cluster policy can be defined as deliberate actions taken by the government in order to create or support the growth and competitiveness of clusters. The rationale for public intervention to foster clusters through various types of support measures such as infrastructure and knowledge-based investments as well as networking activities and training, is an increase in knowledge spill-overs (positive externalities) among key actors in clusters. Nowadays, cluster policies take different forms and are very often included as basic instruments and integral part of industrial and small and medium-sized enterprises (SMEs) policies or research and innovation policies.

Under the conditions of rising globalization, increased competition in technology intensive spheres by new global players as China and India, fiscal austerity and quests for savings in public spending in developed economies, as well as a resurrection in the interest of industrial policy, the concept of smart specialisation has received much attention during the past three years.

Smart specialisation is a strategic approach to economic development through targeted support to research and innovation. It is an evidence-based policy framework which uses indicators, technology foresight, and other priority-setting tools to help entrepreneurs and firms strengthen existing scientific, technological, and industrial specialisation patterns while identifying and encouraging the emergence of new domains of economic and technological activity.

Smart Specialisation Strategies (S3) are conditionality for accessing EU Structural Funds investments in research and innovation, as part of the Cohesion Policy’s contribution to the Europe 2020 jobs and growth

agenda during the period 2014-2020. More generally, smart specialisation involves a process of developing a vision, identifying competitive advantages, setting strategic priorities, and making use of smart policies to maximise the knowledge-based development potential of any region, strong or weak, high-tech or low-tech (European Commission, S3 Platform, 2014).

By elaborating S3, governments are attempting to enhance the competitiveness of firms and clusters. The underlying rationale behind the S3 concept is that even in the information age, the logic of specialisation is intact—it clearly pays to focus on areas of real potential and strength rather than spreading investments thinly over unrelated areas.

According to the European Commission (2013b), clusters and S3 are closely related concepts as they share many similarities in their rationale: (1) a focus on productivity and innovation as key drivers of competitiveness; and (2) an accent on fostering regional embeddedness with a view to capitalising on the advantages of proximity. However, the two concepts are not equivalent as there are important differences. S3 focuses on specific innovation intensive sectors while clusters apply to a broader set of sectors in the economy. S3 aims to exploit emerging linkages between economic activities that can cut across traditional cluster boundaries. And, probably most importantly, the explicit goal of S3—the transformation of regional economies around new knowledge-based activity domains—while the goal of cluster policies is often to enhance the performance of existing clusters (European Commission, 2013b).

S3 are thus wider policies which go beyond cluster policies, using priority-setting tools to help entrepreneurs and firms strengthen existing scientific, technological, and industrial specialisation patterns while identifying and encouraging the emergence of new domains of economic and technological activity. By aiming to create new capacities, S3 try to accelerate the transformation and modernisation of economic activities in clusters.

Overall, clusters are important building blocks of S3—they are among the most important policy tools in a S3 policy mix. According to the Research and Innovation Strategy for Smart Specialisation (RIS3) Guide (European Commission, 2012), R&D (research and development), innovation and technology policy should target sectors with the potential to generate clusters of firms as opposed to simply promoting scattered innovation.

Cluster policies could be especially useful in the process of prioritization in S3. Methods to identify priority intervention domains can benefit from quantitative and qualitative approaches used in cluster selection (taking into account their limits, notably to identify new domains shaped by knowledge crossing traditional industry boundaries) and roadmaps defined by clusters can be used as inputs into the prioritization process (European Commission, 2013b).

The concept of smart specialisation also exerts a significant impact on the way which cluster policies are designed. Cluster policies in many ways aim to achieve a strategy for industrial specialisation. For example, cluster policies in many countries from France to the United States explicitly target specific sectors/industries in their national innovation strategies or plans instead of providing horizontal type of support.

Cluster Initiatives in Bulgaria During the Last Decade

According to Török, Csuka, Kovacs, and Veres (2013), at present, there is no well-defined cluster policy in Bulgaria. However, the notion of clusters is well integrated in other related policies such as the promotion of SMEs, national innovation policy, and regional policy. Furthermore, it is present in almost all strategic

economic, R&D, and other policy documents and all regional plans for development. Thus, it is officially recognized that clusters are a major instrument for achieving sustained economic development.

In 2001 and 2002, several projects with foreign financial assistance were carried out in Bulgaria with the aim of introducing the concept of clusters and exploring the possibilities for cluster development. The first cluster organization—Bulgarian Cluster for Information and Communication Technologies was institutionalized at the end of 2004 as a non-profit legal entity. The implementation in 2005 of the Project “Introduction of cluster approach and establishment of a pilot cluster model” under the Poland and Hungary: Assistance for Restructuring Their Economies (PHARE) Programme resulted in the elaboration of a National Strategy and an Action Plan for Cluster Development. On the basis of a detailed regional economy analysis, potential cluster structures were identified as well as 15 priority sectors, eligible for support from the EU Structural Funds for the development of clusters were outlined: processing of fruits and vegetables, information and communication technologies, clothing and textiles, wine production, general mechanical engineering, energy, dairying, tourism, woodworking and furniture production, non-ferrous metal and ores, auto parts and electronics, high technology/science, transport and logistics, perfumery and cosmetics, and creative industries (Vulov, 2006). However, the succeeding cluster policy proved to disregard these priorities.

After the finalization of the pre-accession PHARE Programme, cluster policy in Bulgaria is carried out through the Operational Programme “Development of the Competitiveness of the Bulgarian Economy 2007-2013” with the financial aid of the European Regional Development Fund. One of the objectives of Priority 2 “Increasing efficiency of enterprises and promoting supportive business environment” is “promotion of productive capacity and access to markets through the use of clustering and business networks”.

The scheme “Support for Cluster Development in Bulgaria” with a budget of 15 million euros supports the build-up of clusters’ administrative and managerial capacity, the expansion of market positions, as well as investments in new technologies and equipment for carrying-out common cluster-related activities. Beneficiaries under this priority axis are: Bulgarian enterprises, from both the manufacturing and service sectors; public bodies and non-governmental organisations, providing business support services and/or operating business incubators; public bodies and institutions, educational and/or research organizations, NGOs (non-governmental organizations), and other entities included in cluster networks. The main priority of the measure is the establishment of clusters in Bulgaria. It does not target any specific sectors and has no specific thematic focus.

The support scheme provides grants to both existing and potential clusters, however, without differentiation among them. Unlike the other EU countries, where more than 60% of the cluster programmes and initiatives follow a vertical approach, the Bulgarian cluster policy lacks prioritization. The cluster initiatives exist in isolation from support schemes for technology parks; no link has been established with key stakeholders—the regions. Furthermore, there is no succession in the policy, each project represents an isolated over time effort. A major flaw of the Bulgarian cluster policy is that the selection of projects for support is not based on clear and objective criteria.

All of the abovementioned weaknesses led to the following paradoxical results during the last session of the scheme “Support for Cluster Development in Bulgaria” with a budget of about 10 million euros, held in 2013, according to the Association of Business Clusters:

(1) Over 80% of the successful applicant clusters were registered in the period (March-April, 2013)—right before the deadline for project proposals submission, i.e., most of the supported clusters are designed with the

sole goal—“absorption of funds” (rent seeking);

(2) Some of the clusters selected for funding are in areas such as sports, finance, consulting, etc., which are way too far from the priorities of the Operational Programme “Competitiveness”—to enhance the industrial competitiveness;

(3) The majority of the clusters have completed the requirement for minimum number of members—seven companies, but do not include scientific or non-governmental organizations or local structures, which is a typical condition for the sustainable functioning of the cluster;

(4) There are cases of “family clusters” approved for support as well as interrelated entities involved in more than one cluster (Georgieva, 2013).

Unlike comparable countries like Romania, where clusters are 47, in Slovakia (20), Croatia (56), and Serbia (43), Bulgaria currently has 230 registered clusters. Fragmentation and proliferation of cluster initiatives have led to dispersion of forces and financial resources as well as to less cooperation and synergies between them. In fact, according to the Bulgarian Ministry of Economy, only 20 of the clusters are actually functioning and most of them are at early stages of development. However, efficient cluster policies are not about the mere establishment of clusters, but about developing excellent clusters that are internationally competitive and that have an impact on the national economy. Thus, they have to focus programs on cluster excellence instead of on number of supported clusters.

In recent years, clusters excellence management has become more and more important, and European Cluster Excellence Initiative (ECEI) was initiated by the European Commission Directorate-General Enterprise and Industry, which developed a quality labelling system for professional cluster management. Only five Bulgarian cluster organizations have been awarded with the Bronze Label of the ECEI, meaning that they strive for excellence. These are Bulgarian Furniture Cluster, Cluster Microelectronics and Embedded Systems, EVIC (Electric Vehicles Industrial Cluster), Mechatronics Cluster Bulgaria, and SCIAT (Specialized Cluster Institute for Apparel and Textile). Among them, only two (SCIAT and Bulgarian Furniture Cluster) fall within the area of the top regional clusters in Bulgaria, identified by the European Cluster Observatory (see Table 1).

Table 1

Top 14 Clusters in Bulgaria by Stars, Employees, and Specialisation

Cluster	Region	Employees	Specialisation	Stars
Apparel	Yuzhen tsentralen	33,572	6.44	★ ★ ★
Apparel	Yugozapaden	29,388	3.55	★ ★ ★
Apparel	Severen tsentralen	27,034	8.32	★ ★ ★
Textiles	Yuzhen tsentralen	18,456	3.52	★ ★ ★
Textiles	Yugozapaden	19,388	2.33	★ ★
Distribution	Yugozapaden	15,456	2.05	★ ★
Apparel	Severoiztochen	14,741	4.44	★ ★
Furniture	Severen tsentralen	9,344	4.55	★ ★
Textiles	Severen tsentralen	9,298	2.84	★ ★
Footwear	Yugozapaden	7,312	3.63	★ ★
Textiles	Yugoiztochen	5,962	2.99	★ ★
Apparel	Severozapaden	5,840	3.12	★ ★
Footwear	Yuzhen tsentralen	5,586	4.40	★ ★
Tobacco	Yuzhen tsentralen	4,381	20.21	★ ★

Note. Source: European Commission (2013a).

To date, the European Cluster Observatory has identified more than 2,000 regional clusters in the EU, assigning one star for each of the following criteria: employment size in a particular industry cluster within a region, degree of specialisation within the region, and cluster focus of employment within a region (European Commission, 2013a). Bulgaria has only four three-star regional clusters which are in the sectors of apparel and textiles. Among the top 14 regional clusters in the country, as many as nine are in the sectors of apparel and textiles, one in distribution, one in furniture, and two in footwear. Thus, through the years, Bulgaria has established sustained specialisation in low technology, labour-intensive industries. The existence of such well settled clusters in the regions may be a hindrance to develop forward-looking S3, since there is likely to be a lock-in effect, impeding the shift toward new, less traditional, potentially more promising specialisation areas.

The cluster policy in Bulgaria during the last decade does not go in line with the principles of smart specialisation. It lacks a strategic perspective, coherence, and focus, which ultimately makes it quite inefficient. Data provided by the World Economic Forum (WEF) confirm such a conclusion (see Figure 1).

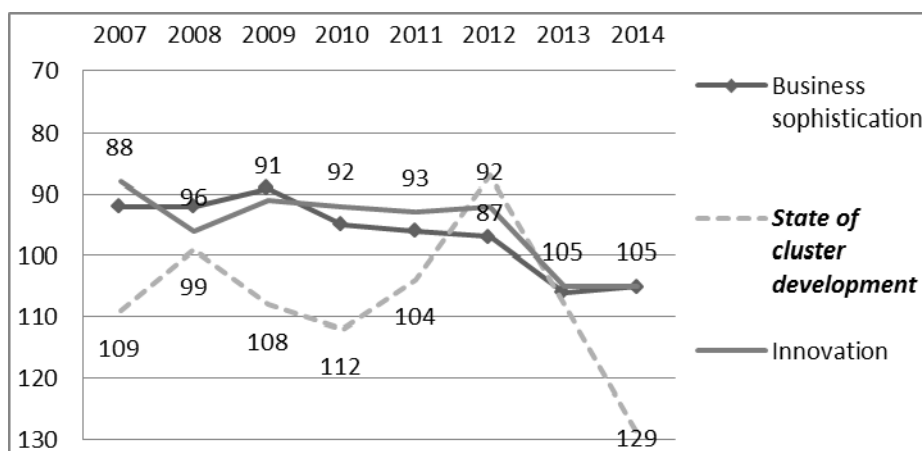


Figure 1. Ranks of Bulgaria for the period 2007-2014 on indicators of business sophistication and innovation according to the WEF. Source: The Global Competitiveness Report 2014-2015.

During the period 2007-2014, Bulgaria's cluster policy has not managed to significantly improve the state of cluster development in the country. In the ranking of the WEF, Bulgaria occupied the 109th position in 2007 and fell to the 129th position (out of 148) in 2014 according to the indicator "State of Cluster Development", which reveals that clusters are quite poorly developed and represent a competitive disadvantage for the national economy. What is more, the cluster initiatives have not contributed to the microeconomic competitiveness and innovation potential of Bulgaria. For the last seven years, the country has significantly deteriorated its performance according to the indicators "Business Sophistication" and "Innovation".

Conclusions

According to the smart specialisation concept, it is expected that public resources should be concentrated on a limited number of well-defined priorities. This requires tough choices on the basis of country's own strengths and international specialisation. The selected priorities should be based on shared vision built during wide consultation process, including a wide range of entrepreneurs, researchers, social partners, etc. Priority setting should rely on the logic of entrepreneurial discovery of likely market opportunities. It concerns experimentation and discovery of domains of specialization, given the existing productive assets. Clusters,

accordingly cluster policy is assigned a major role in S3 necessarily involving prioritising “sectoral cluster”, “sectoral strategic plans”, or “cluster strategy”.

During the last decade, Bulgarian cluster policy proved to be of extremely low efficiency. It showed a lack of focus and strategic prioritising, scattering the resources which did not allow achieving of critical mass effects. The resulting poor state of cluster development, with regional clusters concentrated extremely in traditional sectors, implied very weak microeconomic competitiveness and deteriorating innovation performance of the national economy.

What policy recommendations could be extended in order to increase the effectiveness and efficiency of Bulgarian cluster policy?

The cluster program should be embedded in a national cluster policy respectively economic development strategy. It has to complement and be closely interconnected with other policies and measures designed to foster the technological modernization and innovation potential of the economy.

The proliferation of cluster initiatives with little chance of long-term success has to be avoided, thus concrete targets and priorities should be set for funded cluster networking activities. Successful cluster policy cannot be elaborated in a pure “top-down” way, but industry and service providers have to be actively involved in the process of prioritisation within a “bottom-up” approach. New cluster initiatives should be carefully designed and underpinned by a very clear rationale based on precisely identified business interests, regional strengths, specific competences, knowledge hubs of international excellence, and market foresight.

As cluster development is a long-term process, cluster support should be provided on a long-term basis of (at least) five to 10 years. This also means that continuous evaluation and monitoring of cluster activities are necessary. Only clusters with a high potential of development and high performance should be supported. The Hungarian Program provides a good example in this regard: Although it commits grants for a certain period of years, funding is provided by a series of instalments (stage-funding). Prior to instalments, beneficiaries have to prove through an evaluation that they perform according to the grant agreement. Furthermore, there is a system of accreditation which provides an easier access to clusters which have produced evident results. Thus, the cluster policy consolidates the well-managed and the most promising clusters in order to facilitate them to become internationally competitive ones.

Clusters have different characteristics depending on their context (e.g., history of origin, emerging vs. traditional industries, mature vs. immature clusters). This requires different support mechanisms depending on the development stage of the cluster. The example of Romania has to be followed, which has two cluster programs each of which specifically dedicates its effort to either the development of new cluster organizations or the further support of the already existing cluster management organizations.

It is essential for firms to take part in the global exchange of knowledge and be highly export oriented; therefore, the cluster policy should support the internationalisation of cluster organisations and cluster activities. This has to be reflected by program guidelines and evaluation criteria for project proposals.

The Bulgarian cluster policy has to be integrated in FDI (foreign direct investment) promotion policy, aiming to target foreign investors in order to fill in gaps or strengthen the missing links in the priority clusters.

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