Clusters in tourism, agriculture and food processing within the Visegrad Group

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Abstract: The contemporary regional economics sees clusters as geographically close groups of companies and other connecting organizations that work together while they also mutually compete. Despite the fact that the naturally born clusters exist for centuries and their formation is driven primarily by market factors, there has been prevailing in the recent decades a positive view of the controlled and driven development of clusters in developed countries. Organized clusters are being called the cluster initiative. In recent years, there was a relatively rapid development of cluster initiatives also in the territory of the Visegrad countries due to the national programs and subsidies from the EU structural funds. This paper reacts to the situation. The aim of the paper is to identify clusters currently existing in the tourism, agriculture and food sector in the Czech Republic, Hungary, Poland and Slovakia and to analyze their regional dispersion, structure and activities.

Keywords: cluster initiatives, agriculture, food processing, tourism

The contemporary regional economics sees clusters as geographically close groups of companies and other connecting organizations (mainly universities, research institutions and other professional associations and workplaces) that work together while they also mutually compete. Clusters play in an increasingly strong role in the globalized economy. Their existence contributes to the growth of the participating companies as well as the industries. Working clusters can maintain a competitive advantage despite the efforts of others to imitate their activities. The origin of sustainable competitive advantages can be seen in the combination of internal and external resources that are available in the national or regional business environment. The resources themselves, however, are not sufficient. A prerequisite of competitive sectors and regions is their dynamics. The very clusters affect in a positive way the dynamics of resources and mutual collaboration between the participants of the economic system, while maintaining a healthy competitive environment.

Despite the fact that the naturally born clusters have existed for centuries and their formation is driven primarily by market factors, there has been prevailing in the recent decades a positive view of the controlled and driven development of clusters in developed countries. Organized clusters are being called the cluster initiative. In recent years, there was a relatively rapid development of cluster initiatives also in the territory of the Visegrad countries due to national programs and subsidies from the EU structural funds. This paper reacts to the situation. The aim of the paper is to identfy the clusters currently existing in the tourism, agriculture and food sector in the Czech Republic, Hungary, Poland and Slovakia and to analyze their regional dispersion, structure and activities. The analysis includes all currently active clusters on which it is possible to obtain relevant and compareable data. The data used in the study comes from the specific cluster intitiatives, the database of the National Cluster Association of the Czech Republic and from the materials of the state agencies specialized on the management of custer policies of the Visegrad Group countries such as: the CzechInvest; the Slovak Innovation and Energy Agency, the Hungarian Economic Development Centre and the Polish Agency for Enterprise Development.

THEORETICAL APPROACHES TO THE DEFINITION AND EVALUATION OF CLUSTERS AND CLUSTER INITIATIVES

Most modern theoretical concepts of regional development agree on the importance of clusters and other forms of the cooperation network for the

competitiveness of the companies and the regions. Therefore, a number of definitions of regional clusters can be found in the scientific literature. Though we do not find a single definition, the majority of the presented concepts is based on similar principles.

We can quote the book of M.E. Porter "The Competitive Advantage of Nations", a pioneering work in the area of clusters. In this work, the cluster is defined as a "geographically close grouping of mutually interlinked firms and dependent institutions in a given discipline (e.g., even universities, scientific research institutions, chambers of commerce and the like), and firms in related fields which compete together, cooperate, have joint symbols and complement each other" (Porter 1990). Later on, Porter (1998) brought his original definition up to date and developed it as follows "Clusters are local concentrations of mutually linked businesses and institutions in a given field. Clusters include groups of interconnected industrial sectors and other subjects important for economic competition. They consist of, for instance, suppliers of specialised inputs and providers of specialised infrastructure. Clusters often expand vertically into marketing channels and customers, as well as horizontally to producers of complementary products and companies in industrial branches, related by virtue of skills, technology or joint inputs". Many clusters also include governmental or other institutions – such as, for instance, universities, standard setting agencies, research teams or business associations – which provide a specialised training, education, information, research and technical support. Porter understands clusters as one of the main sources of microeconomic competitiveness. According to him, the main factor of competitiveness of a state or region is productivity, with certain used sources. Among the microeconomic requirements for the growth of productivity, Porter, in his current publication, includes: the firms' performance and the refinement of their strategy, the quality of the microeconomic business environment and the level of development of the clusters.

Porter's concept was enriched and concretized by other authors as well as by the major international and national organizations and institutions. Several definitions were also published by the European Commission. In the professional publication of 2002, it characterizes a regional cluster as "a concentration of mutually interconnected and dependent companies under the same or similar industry, which works within a small geographic area." In the paper by the European Commission published in 2008, we can find an enhanced definition of the cluster saying "A cluster can be defined as a group of firms, related economic actors and institutions that are located near each other and achieve sufficient potential for the development of commercial, technological and other cooperation. Clusters represent a real economic phenomenon that can be observed and measured" (European Commission 2008).

The definition according to the OECD is not limited to the regional level only. It states that a cluster concept can be applied at the national, sectoral and company level. In terms of the content it emphasizes, besides the developed ties between firms, also an importance of innovative elements and customers (OECD 2007). Ketels highlights the institutional aspects and the involvement of a broad group of stakeholders. In the given concept, the clusters consist of the co-located and mutually interconnected industries, the engagement of government, academia, financial institutions and the institutions for collaboration (specifically, it means 5 players). Dynamic clusters are crucial for the successful microenvironment (Ketels et al. 2003). Rosenfeld regards as essential for the successful functioning of the cluster its involvement in commercial exchanges, the dialogue and communication. Without the active channels of mutually interconnected companies, there can exist no mutual local production and social prosperity, and therefore such an association cannot function as a cluster (Rosenfed 1997).

A cluster is a geographic concentration of the interrelated enterprises, highly specialised suppliers, service providers, enterprises operating in the related industries and the associated institutions (universities, standardisation units, professional associations, backing institutions) in specific areas, competing with one another, but also cooperating. A cluster is closely connected with the territory in which it operates; it is regionally rooted (Mirvald 2011). Clusters are a specific form of the organisation of production, where there is a concentration of flexible businesses operating in the vicinity of one another on a complementary basis. These entities simultaneously cooperate and compete with each other, also liaising with other institutions operating in the same area. The basis for the creation of a cluster are cooperative relationships existing between the entities, generating processes creating specific knowledge and increasing their adaptive capacity (Vošta and Abrhám 2010).

The basic assumptions of successfully functioning clusters stem from the natural concentration of a sufficient number of firms in the given industry

and the related industries. Also the management processes and the organization of clusters cannot be underestimated. In this context, various policies, programs and other tools to support the initiation and development of clusters are developed. Organized clusters are being called the cluster initiative. From the literature, we can give several definitions of cluster initiatives. According to Ketels (2003), a cluster initiative represents "organized efforts to increase growth and competitiveness of the cluster in the region, taking into account the involvement of cluster firms, government or research community ... Cluster initiatives are the grease that allows the engine of cluster dynamics to run at high speed." The European Commission (2008) defines the cluster initiative very much like Ketels (2003), it does and also add that these initiatives generally stem from a formulated cluster policy and they are usually conducted by specialized institutions (European Commission 2008). As you can see, in the case of cluster initiatives, there is not only significant the concentration of firms, but also a created partnership and organized pursuit for the development of clusters, which is generally supported and developed externally through various public policies, programs and instruments (Dubský 2005). Cluster initiatives can provide the companies with numerous incentives for improving their competitive position. They provide the economies of scale, reduce the limits of small businesses and increase specialization, stimulate the local competition and thus create a global competitive advantage. They also accelerate the innovation potential of the companies through the information and technology transfer between the neighbouring firms within the cluster, and with the generation of new ideas, they favourably affect the productivity of firms, improve the status and the significance of smaller firms in relation to business partners and public authorities, etc. The success of the cluster initiative is, however, conditional on the quality of the engaged external stakeholders and the appropriate choice of the strategic focus and activities that the cluster provides for its stakeholders. Quite often there are founded cluster initiatives, which, at the end of the day, do not fulfil the vision of the founders (Vaško 2013).

A badly focused cluster concept can be associated with the inefficient governing of private or public funds. Members of the cluster, managements of cluster organizations, providers of grants, regional authorities and other relevant bodies therefore need to be kept informed about the stage of the development and performance of cluster initiatives. There are many approaches to measuring the performance of clusters. Pavelková (2009) names the following: the evaluation of the performance of the individual entities participating in the activities of the cluster, the evaluation of the effectiveness of the various activities carried out in the cluster, the evaluation of the performance of the cluster as a whole, the evaluation of the effectiveness of the management of the cluster, the impact assessment of the cluster policy in the region and, last but not least, also benchmarking.

The methods used for the assessment and evaluation of clusters are gradually developed and applied in the countries of the Visegrad Group, too. In comparison with the Western European countries, in the countries of the Visegrad Group, clusters and cluster initiatives are fairly new instruments. Over the last decade, there has been a strong boom of clusters, mainly due to the support of cluster initiatives provided from the EU resources. The formation of clusters, however, preceded the properly done mapping studies and some clusters originated via the transformation or development of the already existing platforms of cooperating companies (Potužáková 2009). Due to the rapid development in that area, it seems necessary to regularly monitor and evaluate the current state of the development of cluster initiatives in order to continue targeting the instruments of cluster policies at the national and regional level. If we examine the modes applied for the evaluation and certifying clusters in the Czech Republic, Hungary, Poland and the Slovak Republic, we can see that the approaches taken in the individual countries differ. In Hungary and Poland, the ongoing evaluation of the quality of cluster initiatives takes place. In the Czech Republic, a decision-making system developed for the areas of support from the Structural Funds was used for the selection of cluster initiatives (the only supported cluster initiatives were those that met the specified criteria, which basically expressed the quality achieved). Among the supported projects, no further evaluation was made, which is a different approach from the one taken in Hungary and Poland, where the systems evaluating the already functioning clusters were developed. For all countries of the Visegrad Group, a common feature is that a number of cluster initiatives participated in the assessment under an international project organized by the European Secretariat for Cluster Analysis (ESCA). This system of quality assessment of cluster initiatives is currently the most widespread not only in the countries analysed, but also in the European context. The benchmarking was, in accordance with

the internationally recognized methodology of the European Secretariat for Cluster Analysis (ESCA), applied in the evaluation of clusters in the Czech Republic carried by the CzechInvest. In the following text, we will clarify first the assessment methodology of the European Secretariat for Cluster Analysis, and subsequently the national systems of the evaluation of cluster initiatives in Hungary and Poland.

The methodology of the European Secretariat for Cluster Analysis is based on a benchmarking principle. Benchmarking is a comparative analysis of structures, processes, products and services. It compares an entity to the peers in the same field of activity and/or to the best practices from the entities in other areas. The benchmarking methodology by the ESCA is based on structured interviews with the representatives of cluster initiatives. Within the interview, the data concerning the size and scope of the cluster and its organization, the structure of the cluster, the management of cluster initiatives, funding of the organization of clusters and other are sought. The aim of benchmarking is to determine the best organizations for the management of clusters in Europe, as well as to set support for the organizations for cluster management and providing the consultancy service of how to improve the cluster further directly during the evaluation. The analysis is presented in a comprehensive benchmarking report. The report includes the graphical comparison of the cluster with clusters from the same technological area and with the most excellent ones in Europe. The report also includes recommendations for improvement.

The European Secretariat for Cluster Analysis cooperates with more than sixty experts on the cluster issues, coming from twenty six European countries. Specifically, more than three tens of the indicators are evaluated. The indicators are divided into the following groups (Hagenauer et al. 2011):

– Structure of the cluster (the age of the cluster organisation, the legal form of the cluster organisation, nature of the cluster – driving forces, the nature of the cluster – the degree of specialisation, the number of the committed cluster participants in total, the composition of the cluster participants, the geographical concentration of the cluster participants, the utilisation of the regional growth potential, international participants of the cluster, the nature of cooperation between the cluster participants).

– Cluster management and governance (a clear definition of the roles of the cluster management, the implementation of a governing body, the maturity of the cluster management, the degree of involvement of the participants of the cluster in the decision making process, the number of cluster participants per employee of the cluster organisation, human resource competences and the development in the cluster organisation, strategic planning and implementation processes, thematic and geographical priorities of the cluster strategy, direct personal contacts between the cluster management team and the cluster participants, the integration of the cluster organisation in the innovation system, the qualification of the cluster management team).

– Financing of the cluster management (prospects of the financial resources of the cluster organisation, the share of financial resources from private sources).

– Services provided by the cluster organisation (the acquisition of third party funding, the collaborative technology the development, technology transfer of R&D without third party funding, information, matchmaking and the exchange of experience among the participants, the development of human resources, the development of entrepreneurship, matchmaking and networking with external partners, the internationalisation of the cluster participants).

– Contacts and interaction with the relevant players (regular contacts with the cluster participants, integration of the cluster management organisation in the local and national system of innovation, the customer and membership satisfaction).

– Achievements and recognition of the cluster organisation (the number of external cooperation requests received by the cluster organisation, the institutional origin of the external cooperation requests, the geographical origin of the external cooperation request, characteristics of the cooperation with other international clusters, the visibility in the press, the impact of the work of the cluster organisation on the R&D activities of the cluster participants, the impact of the work of the cluster organisation on business activities of the cluster participants, the impact of the business-oriented services of the cluster organisation on the SME participants, the of internationalisation of the cluster participants, the impact of the work of the cluster organisation on international activities of the cluster participants).

Cluster initiatives that will participate in structured interviews are awarded by the so-called Bronze Label of the European Cluster Excellence Initiative. The

Bronze Label award does not relate to the level of the quality achieved. The given award can receive every cluster, which is involved in the benchmarking process. The cluster thus obtains both the evaluation as well as the recommendations for improvement. The best quality clusters may undergo an even higher level of the quality certification, which is called the Gold Label of the European Cluster Excellence Initiative. This assessment already guarantees a high degree of sophistication of the management of the cluster. However, we note that the assessment concerns only the management of the cluster organizations, not the quality of the cluster itself.

Another methodology for the evaluation of clusters is used in Hungary in the framework of the so-called Polus Programme. In 2007–2013, this programme was used, inter alia, for financing of the cluster development projects. The supports are differentiated according to the stage of the cluster development. In the initial stage (start-up cooperation), the projects are focused on the development of administrative activities. In the developing stage (developing clusters), they focus on the joint activities and in the developed stage (the accredited innovation clusters) of the joint innovation projects. The so-called Poles Innovation Clusters represent the final stage of the development of the cluster initiatives and they are examples of excellent cluster initiatives in the terms of management and the innovation potential. To distinguish the degree of maturity of the cluster, there was developed an evaluation system of the cluster that uses a combination of the quantitative and qualitative indicators. Specifically, the following areas are assessed (Novak 2011):
– the evaluation of the effect of the cluster on employment (the number of employees with a degree in engineering, natural sciences, medical sciences or agriculture; the number of employees holding a PhD degree employed by the cluster member companies; personal costs);
– the evaluation of the business performance of the SME members (the number of SMEs in the cluster; the total revenues of the SMEs in the cluster; the ratio of the total revenue of SMEs to the total revenue of all member companies in the cluster);
– the evaluation of the export potential of member companies (the ratio of the export oriented SMEs; export revenues of SMEs in the cluster);
– the evaluation of the framework and the content of the co-operations in the cluster (the sum of costs paid by the SME cluster members due to their cluster membership; the track record of the cluster);

– the analysis of the R&D and innovation activities in the cluster (the number of intellectual property rights owned by the cluster member companies; the ratio of companies with the R&D activities);
– the evaluation of the complex cluster strategy (qualitative assessment).

The Polish methodology of the clusters evaluation is based on the principle of benchmarking, which is carried out and published by the Polish Agency for Enterprise Development. The objective of benchmarking is to assess the state of development of Polish clusters, to compare the individual cluster initiatives with the average of the selected group, to determine the strengths and weaknesses of cluster organizations and to provide recommendations for improving the management of the development of the cluster organization and functioning of the individual members. The last benchmarking analysis was published in 2012. That study included 49 indicators divided into 4 regions and 15 sub-areas. The focus was given to the following areas (Hołub-Iwan and Cheba 2012)
– cluster resources (human resources and cluster know-how, financial resources, infrastructural resources),
– processes in clusters (market activity, marketing and PR, internal communication, knowledge and innovation creation),
– the cluster performance (human resources development, increasing the competitive advantage of a cluster, improvement of the cluster innovation, cluster internationalisation),
– the cluster growth potential (regional conditions, associated institutions, cluster leadership, public policy supporting the cluster development).

IDENTIFICATION, STRUCTURE AND CASE STUDIES OF THE FUNCTIONING CLUSTER INITIATIVES

Based on the mapping studies done, there were identified more than sixty working cluster initiatives in the Czech Republic, Hungary, Poland and Slovakia. The analysis included only 53 cluster organizations whose main fields of activity are tourism, food industry and agriculture. In case of other cluster initiatives, it was impossible to obtain complete information about their structure, their focus, the projects implemented and the current number of members and thus it was not possible to evaluate them.

The identified clusters are distributed rather unevenly in terms of their location. Half of the cluster initiatives are located in Poland (26 cluster organizations). On the contrary, the lowest number of them was found in the Czech Republic (6 cluster initiatives) and Slovakia (5 cluster organizations). The causes of the Polish dominance can be seen mainly in the larger scale of the country (measured by the number of inhabitants), in the elaborated system of cluster policy, and also in the significance of the monitored sectors in the national economy. The Czech Republic and Slovakia show a significantly lower share of the agricultural and food sector in the gross domestic product as well as the employment rate than Poland. In Hungary, there was recorded a relatively high proportion of cluster organizations, which could not be evaluated due to the data limitations.

When comparing the regional distribution of cluster initiatives, it was found out that the largest number of cluster initiatives originated in the following regions: Warmian-Masurian (Poland), North Great Plain

(Hungary), Central Slovakia (Slovakia) and Podlaskie (Poland). The regional distribution of clusters is more balanced in the territory of Poland and Hungary in comparison to Slovakia and the Czech Republic, where the cluster organizations in the monitored sectors are concentrated only in a few regions in the South and East of the Czech Republic and in the Central Slovakia.

Another disparity can be traced in the terms of the structure of clusters classified according to the branches. In Hungary and Poland, there are working clusters in tourism as well as in the agricultural and food sector. On the other hand, in the Czech Republic we can find the majority of clusters in the food industry, while in Slovakia in tourism. So far, there has not been developed even a single cluster in the agriculture and food industry in Slovakia.

When evaluating clusters within the internationally recognized methodologies, for being included into the so-called strong clusters, there are generally required four or five members. Via this optics, only the cluster

Table 1. Cluster organizations in tourism (Czech Republic, Poland)

Cluster	Specialisation	Number of members	Country	Region (NUTS 2)
Moravian Silesian Tourism Cluster	tourism	39	Czech Republic	Moravia-Silesia
Cross-Border Tourism Cluster (Berlin-Szczecin-Baltyk)	tourism	21	Poland	West Pomeranian
Tourism Cluster West Mazury	tourism	47	Poland	Warmian-Masurian
Tourism Cluster Eastern Poland	tourism	12	Poland	Warmian-Masurian
Tourism Cluster Mazury	tourism	26	Poland	Warmian-Masurian
Innovative Cluster Health and Tourism	tourism	120	Poland	Podlaskie
Eastern Cluster of Tourism	tourism	36	Poland	Podlaskie
Regional Tourism Organization Torun	tourism	68	Poland	Kuyavian-Pomeranian
Regional Tourism Cluster	tourism	22	Poland	Kuyavian-Pomeranian
Ciechociński Spa Cluster	tourism	17	Poland	Kuyavian-Pomeranian
Regional Tourism Organization Lubusz	tourism	38	Poland	Lubusz
Lubusz Trail of Wine and Honey	tourism	39	Poland	Lubusz
Innovation Cluster for Health and Tourism	tourism	33	Poland	Holy Cross
Tourism and Regional Development Cluster	tourism	9	Poland	Holy Cross
Regional Tourism Cluster	tourism	68	Poland	Lublin
Opole Tourism Cluster	tourism	35	Poland	Opole
Cluster for Quality of Life in the Region Podkarpackie	tourism	57	Poland	Subcarpathian

Source: cluster organizations (http://www.pi.gov.pl/PARP/data/klastry/index.html; www.klacr.cz)

organizations in Poland can be evaluated as strong clusters, where we find a number of clusters with a large base, such as: the Innovative Cluster Health and Tourism in the region of Podlaskie (120 members), the Regional Tourism Organization Torun (68 members), the Quality of Life Cluster in the Podkarpackie region (57 members), the Fruits and Vegetables Cluster Lodz (122 members) or the Fruits and Vegetables Cluster Lodz-Mazowiecki (68 members).

Most of the monitored cluster initiatives have a diversified structure in the terms of the legal status of the participants, which corresponds to the theoretical assumptions of the functioning of organized clusters. As regards the structure of the analysed clusters, there prevail among the cluster members the business entities, which are complemented in all the clusters by research institutions and universities. In some cases, there are also other intermediary institutions. Specifically, the business entities only include the Podlaskie Bakery Cluster and the Lubelskie Food Cluster. These cluster organizations conceptually correspond more to the networks of firms rather than clusters.

Coming to the examination of the objectives, activities and current projects undertaken by the analysed clusters, we find out that they concentrate primarily in the areas of the supplier-customer relations, cooperation in the field of research and innovation, marketing and PR activities, export promotion and in the field of education. Most clusters focus on the business cooperation (Herget and Abrhám 2013). The preferences of the individual activities are not so different across the countries and across regions, but across sectors. The clusters in tourism specialize, in all countries examined, in particular on the marketing, sales and educational activities. The cluster organizations in the food industry include, besides business and educational activities, in many cases also innovation and sometimes even the joint research projects.

To illustrate the practical functioning of tourism clusters, there are presented few examples of the selected cluster initiatives in the text below. The case studies include the Liptov Cluster, the Moravian-Silesian Tourism Cluster, the PharmacoFood Cluster (Szeged) and the Nutribiomed Cluster (Lower Silesia).

Table 2. Cluster organizations in tourism (Hungary, Slovakia)

Cluster	Specialisation	Number of members	Country	Region (NUTS 2)
Tourism Cluster West Slovakia	tourism	5	Slovakia	Western Slovakia
Liptov Cluster	tourism	29	Slovakia	Central Slovakia
Orava Cluster	tourism	10	Slovakia	Central Slovakia
Turiec Cluster	tourism	6	Slovakia	Central Slovakia
Balnea Dudince Cluster	tourism	6	Slovakia	Central Slovakia
Pannon Thermal Cluster	tourism	32	Hungary	West Transdanubia
The Bakony-Balaton Regional Touristic Cluster	tourism	14	Hungary	Central Transdanubia
Cluster of Rural Tourism	tourism	14	Hungary	South Transdanubia
Innovative tourism cluster	tourism	19	Hungary	Central Hungary
Békéscsabai Regional Touristic Cluster	tourism	22	Hungary	South Great Plain
Innovative Tourism Cluster in the Northern Great Plain Region	tourism	21	Hungary	North Great Plain
North Great Plain Thermal Cluster	tourism	27	Hungary	North Great Plain
South Transdanubia Tourism Festival Cluster	tourism, culture	15	Hungary	South Transdanubia

Source: cluster organizations (www.klasterliptov.sk; www.orava.sk; www.tikdudince.sk; www.thermalklaszter.hu; http://www.veszpremikamara.hu/hu/veszprem-megyei-kereskedelmi-es-iparkamara/egyeb-anyagok/bakony-balaton-regionalis-turisztikai-klaszter-2434; www.bekestourist.hu; www.gyogyturizmus.hu)

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Information about the clusters is cited from the web pages of cluster intitiatives (http://www.pharma-coidea.eu,www.klasterliptov.sk, www.nutribiomed.pl, www.klacr.cz).

The mentioned cluster organizations were chosen deliberately so as to cover all the countries. At the same time, there were efforts made to include the working and developed cluster initiatives.

Firstly, there is mapped the Liptov Cluster, which represents, in the terms of the number of members, the largest cluster organization of tourism in the Slovak Republic. It also represents a model example of the development of Slovakia, the experiences of which are gradually taken over by other clusters (especially in the Žilina Region). The destination Liptov is located in the Central Slovakia. The cluster was established in 2008 as an association of legal persons. The founding members are four most important businesses in the tourism sector in the region, the GINO PARADISE Bešeňová, the Aquapark

Tatralandia, Jasná Low Tatras and the Ski&Bike park Ružomberok, and three municipalities – Liptovský Mikuláš, Liptovský Hrádok and Ružomberok. The Cluster Liptov represents the kind of a functional destination management organization. Its goal is to build a clearly defined brand of the tourism region Liptov at the domestic and also foreign markets. To this end, there is within the cluster implemented a joint destination marketing (including presentations at the exhibitions and fairs) and the creation of regional tourism products. There was built a complex system of the management of tourism in the districts of Liptovský Mikuláš and Ružomberok. For several years, there has been already implemented a conceptual program of the tourism development in the region Liptov. The cluster facilitates the transfer of innovation and know-how in tourism from other countries in Europe, provides monitoring of the relevant statistics on tourism as well as the expert analyses and studies. The cluster activities also include train-

Table 3. Cluster organizations in agriculture, forestry and food sector (Czech Republic, Poland)

Cluster	Specialisation	Number of members	Country	Region (NUTS 2)
Czech Brewery Cluster	manufacture of beer	15	Czech Republic	Southwest
Regional Food Cluster	food industry	19	Czech Republic	Southwest
NUTRIPOL	food industry	15	Czech Republic	Southeast
NutriKlastr	food products	23	Czech Republic	Southeast
Moravian Forest Cluster	forestry and logging	13	Czech Republic	Moravia-Silesia
Regional Brewery Cluster	manufacture of beer	28	Poland	Warmian-Masurian
Dairy Cluster	dairy industry	13	Poland	Warmian-Masurian
Bakery Cluster	bakery industry	19	Poland	Podlaskie
Wielkopolskie Food Cluster	food industry	33	Poland	Greater Poland
Leszno Food Cluster	food industry	21	Poland	Greater Poland
Fruit and Vegetables Cluster Lodz	production and processing of fruits and vegetables	122	Poland	Lodz
Fruit and Vegetables Cluster Łódź - Mazowiecki	production and processing of fruits and vegetables	75	Poland	Lodz
Organic Farming Cluster	production of organic foods	14	Poland	Lubusz
"Carpathian taste" Cluster	food industry	27	Poland	Subcarpathian
Nutribiomed	food industry	40	Poland	Lower Silesia

Source: cluster organizations (http://www.pi.gov.pl/PARP/data/klastry/index.html; www.pivovarskyklastr.cz; www.nutriklastr.cz; rpklastr.mojedomena.cz; www.lesnickyklastr.cz)

ing and cooperation in the coordination of common procedures and the event management (especially sporting and cultural events).

In the Czech Republic, the choice of the case study presented is fairly clear. The only realized cluster initiative (the Moravian-Silesian Tourism Cluster) meets the criteria for a functioning cluster initiative. The aim of the organizations belonging to the tourism cluster is the cooperation within the Moravian-Silesian region, to raise awareness about the tourism potential of the region and through joint activities to increase its visiting. The activities organized by the cluster focus on four priority areas: cooperation and partnership, marketing and promotion, training and financing. Similarly as with other tourism clusters that operate in the region of the Visegrad countries, it supports a joint marketing of the brands in the region, the optimization of the promotion and the the enhancement of the cooperation between operators in the region. Regular information service and members meetings should increase the mutual communication and awareness of the stakeholders in tourism. Marketing activities aim at linking the isolated offers into the product packages, joint presentations at the trade fairs and exhibitions, presentations in the selected media. The accompanying website also contributes to the development of the destination. With regard to the geographic location of the cluster, it represents a further potential of the development of the cross-border cooperation with tourism clusters (destination) in Slovakia and Poland.

The Hungarian food clusters are represented by a specific cluster organization called the PharmacoFood Cluster, which includes producers in the fields of life sciences and functional food. The reason for this choice is the state of the development of the cluster. This is the only one out of the analysed Hungarian clusters, which received the accreditation under the evaluation of the stages of cluster development and it is thus classified among some twenty most developed initiatives in Hungary. It is actually the second largest Hungarian innovation clusters according to the total turnover of the members involved. The primary objective of the cluster is to create innovative activities and products. The cluster activities include mainly the research of the new ways of heeling, devices and functional food products, the development and marketing of functional food essences and food products containing the clinically proven compounds, the development and improvement of products friendly to the environment and the creation of the MPAs – bioinformatics database. This is one a few just innovation-oriented clusters in the Central and Eastern Europe.

The Nutribiomed Cluster brings together producers and food processors, manufacturers in packaging and hygiene products and pharmaceutical companies. At present, the cluster initiative has forty members in the following structure: 6 universities, 31 companies and 3 supporting institutions. The idea is to create a positive environment for fostering of the position of regional producers in the market of dietary sup-

Table 4. Cluster organizations in agriculture, forestry and food sector (Hungary)

Cluster	Specialisation	Number of members	Country	Region (NUTS 2)
Pannon Local Product Cluster	agriculture, food industry	13	Hungary	South Transdanubia
Kinces Báczka Cluster	agriculture, food industry	24	Hungary	South Transdanubia
Hungarikum Elite Cluster	food industry	29	Hungary	South Great Plain
Eger food cluster	food industry	20	Hungary	North Hungary
Regional Agricultural Innovation and Technology Transfer Cluster	agriculture, food industry	13	Hungary	North Great Plain
North Great Plain Regional Cluster for Innovation and Food Chain	food industry	15	Hungary	North Great Plain
Róna-juh Sheep Cluster	agriculture	18	Hungary	North Hungary
PharmacoFood Cluster	life sciences and functional food	27	Hungary	South Great Plain

Source: cluster organizations (www.ektf.hu; www.ronajuh.agrinnova.hu; http://www.pharmacoidea.eu/index.php?act=5&sub=0&lng=hun; http://www.kincsesbacska.hu/; http://www.agrar-innovacio.hu/; http://www.korosvolgye.hu/content/hungarikum.html)

plements and biomedical products, both domestically and abroad. The cluster organization aims at developing its own manufacturing know-how based on the natural agricultural resources. The activities of the cluster include the brand development of the cluster, the cooperation in marketing processes, the development and implementation of new technologies and the investment projects, educational projects and the support of the transfer of innovations as well as the collaboration of the business and universities.

CONCLUSION

The economic and price levels of the countries of the Visegrad Group gradually converge to the European Union average, which fundamentally changes its competitive position in the international environment. The economies of the Visegrad Group countries will not be able to break through only via the price factor, but they will have to develop those aspects of competitiveness that lead to the production of unique commodities and services based on a high degree of know-how and innovation. An important role is played by the developed countries and in this regard, among other things, through cluster initiatives.

Based on the analysis conducted, it can be stated that the development of cluster organizations in the countries surveyed is quite differentiated. It is understandable, if we consider the sectors monitored. The state of the industrial clusters is vastly different. In the sectors of tourism, agriculture and food industry, there was identified a significantly higher number of cluster organizations in Poland and Hungary. Lagging behind in the number of agricultural and food clusters logically corresponds to the structure of the economy of both the Czech Republic and Slovakia (Vošta 2012). In tourism, the development of clusters development is clearly lagging behind, as there are used other instruments in the destination management at the regional level (such as the destination management organizations and the local action groups). In the light of the positive experience with the operation of tourism clusters in the examined, but also in other European countries, it is advisable to intensify the development of cluster organizations in the environment in Slovakia and the Czech Republic in particular. The cluster initiatives could usefully complement or replace the existing management structure tourist destinations.

For further conceptions regarding cluster policies in the Czech Republic, Hungary, Poland and the Slovakia, we would consider it appropriate to also follow the current tendency in the orientation of the cluster policy and instruments of the EU. It is planned to have a more selective support for the chosen excellent clusters and to stimulate the cross-boarder reach and cooperation within the framework of the European Union. There should come into being globally competitive clusters, supporting the high level of specialisation of the European economy. As well, a greater emphasis will be placed on measuring the performance and efficiency of the cluster management.

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