

1. TRANSNATIONAL CLUSTERS - CONSEQUENCES OF INTERNATIONAL TRADE; CASE STUDY OF THE ADRIATIC-DANUBE REGION¹

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Abstract

Different countries may have a common interest in the endeavor to build strong clusters or to boost the cooperation between clusters within a specific region. They can use the same specialized research infrastructure and same testing capabilities; they can also encourage cross-border transfer of knowledge. This requires designing a common long-term strategy to facilitate the development of strong global clusters. In early stages, this type of cooperation is limited to cross-border cooperation between regions with common cultural identity, such as the Baltic Sea Region and Central Europe. We can conclude that, although transnational clusters would be a great benefit, it is unlikely that they occur spontaneously. The European Community facilitates transnational cluster cooperation, through different tools that could offer greater benefits. In this respect, it is necessary to address and develop the strategic dimension of transnational cluster cooperation. We tried to emphasize this in our paper, considering countries between two important water borders, namely the Adriatic Sea and the Danube.

Keywords: economic crisis, clusters, SME, competitiveness, regional development

JEL Classification: O25, R38, R58

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I. Introduction

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 has began to change. Taking into account the effects of globalization, which strengthen the competition between different locations – leading 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 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 that they 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 the Community financial instruments to strengthen their clusters, to open them for transnational cooperation.

II. The European Framework for Cooperation

The provision by the European Cluster Observatory of neutral and comparable information on 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 the Member States and regions to learn from each other, in order to be able to formulate coherent policies that support clusters, is a perfect example of how the Community supports policies for cooperation among transnational clusters. This type of support includes: the 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. We are referring to:

- the four INNO-Nets, which created together the European Cluster Alliance, representing an open platform for policy discussions, for developing joint activities and practical policy instruments;
- the CLUNE project, which was aimed at implementing joint pilot projects, related to cluster innovation and policy development;
- the INNET project, which was developed as a consortium of 14 partners, representing national and regional innovative public bodies, aimed at identifying areas of common interest between the partner organizations, on one hand, and the development of joint political action to support transnational cooperation between SMEs included in various clusters, on the other hand;
- the ADC Project, which intended to identify in each partner country in the Adriatic-Danube area companies and/or clusters that were established or were in the process of being established and had 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 developing different opportunities of transnational cooperation, in general, and cooperation among the countries in the project, in particular.

The objectives of all these projects consist in facilitating networking business links between different innovative SMEs, to exchange technical knowledge, to develop research projects and support technology transfer activities and mobility of staff among them, all this at the EU level. In each participating country, information days were organized to encourage the participation of SMEs.

These examples show that there is interest in transnational cluster cooperation at economic policy level. But, as confirmed by feedback of participants, this type of cooperation could not take place without the financial support of the Commission. Only by advanced European funding, the administrations are willing to share their experience with countries that have more recently initiated policies and programs for creating clusters, and moreover, only those which have a particular interest to learn, especially for more effective implementation of regional development strategies .

In many areas, real progress was made in the preparation of closer cooperation between policies and programs on clusters from different Member States and regions by signing memoranda of understanding and launching joint pilot projects. Furthermore, various governments are now working more closely together to improve methodologies for mapping and assessing the impact of clusters. This would not have been possible without the initiatives launched so far by the European Community.

Experts conclude that further progress must be made regarding the removal of some restrictions currently in practice, in order to achieve closer cooperation between the different Member States and regions. This would require the development and

practical application of new legal instruments for cross-border cooperation, such as the "European Grouping of Cross-Border Cooperation" (see Regulation 1082/2006 of the European Parliament, 5th July 2006, published in the Official Journal of the European Union).

As a result of cluster development policies and programs, many organizations that have developed as clusters were registered. It is estimated that in Europe there are more than 500 clusters, with different tasks and support staff. Cluster managing appears as a new profession, with the aim of providing targeted support to these companies.

Cluster initiatives are organized efforts to increase competitiveness within regions, which involve private businesses, public bodies and/or academic institutions inside the regional and sectoral systems. They may be based, but not necessarily, on the existing formulated cluster policy. The research of Global Cluster Initiative, 2005, identified more than 1,400 world cluster initiatives, usually following a bottom-up approach, which are increasingly managed by specialized institutions, such as cluster organizations.

In recent years, many cluster initiatives have become more active in establishing international links and strategic alliances with other cluster initiatives to better serve their customers. Just as businesses are being internationalized, same thing will happen to support organizations and institutions. Traditionally, the focus of many cluster initiatives was on improving internal activities related to the cluster's business environment, strengthening the links between participants in the cluster and upgrading strategies and operations. To these, the creation itself of international links between clusters and the cooperation between clusters initiatives were added. One can observe a strong trend towards transnational cooperation between actors from different clusters and areas. Cooperation within international clusters and between clusters can help to increase the internationalization of firms and their access to technology of excellence, which was not possible within the narrow boundaries of an isolated cluster. As organizations serve the needs of cluster firms, they must also provide services to facilitate international contacts and partnerships, which can be triggered by cooperation with other clusters. Moreover, companies must remain open to new ideas, and cluster organizations must play an important role to provide companies access to global networks. Transnational cooperation is regarded as the correct approach to combat the risk of cluster sclerosis.

III. International Trade in the Adriatic-Danube Area

The Project "Adriatic Danubian Clustering" (ADC) is one of the numerous projects that implemented the European Union policy of support for cluster-based economic development². The ADC Project intended to identify in the Adriatic-Danube area

² *This project was financed as part of the Transnational Cooperation Program for South-East Europe 2007-2013, a program with European funding in which Romania had the Institute for Economic Forecasting as partner in the project. The Institute for Economic Forecasting was running the ADC project in partnership with other eight countries in the Adriatic-Danube region, Italy, Serbia, Slovenia, Bulgaria, Croatia, Montenegro and Bosnia-Herzegovina.*

companies and/or clusters that were already formed or were about to be formed – with activities *only* in the sectors of common interest for all the partners in the project. For this goal, besides other methods (mentioned below), the commodity trade flows among the Adriatic Danube Countries were analyzed.

Trade in commodities among the Adriatic Danube countries intensified over the recent period (the analyzed interval refers to 2006-2008), by country pairs or overall, each country representing significant trade partner. Thus, as regards the overall **exports**, **Italy** was constantly a very important market for the Adriatic Danube countries that were also EU members (especially for **Bulgaria**, **Romania** and **Slovenia**), **Hungary** was an important market for **Romania**, **Bulgaria** became a more important market for **Romania**, and **Romania** was an increasingly important market for **Bulgaria** and **Hungary**. From among the non-EU Adriatic Danube countries, **Croatia**³ was an important market for **Slovenia**, **Bosnia-Herzegovina** a significant market also for **Slovenia**, and **Serbia** a significant market for **Bulgaria** and **Slovenia** (see Table 1).

Table 1

Total Exports – Partner Country Shares in National Totals

2006													
	BG	BA	HR	HU	IT	KS	MN	RO	SE	SI	EU27 ExtEU	EU27 IntEU	Total
BG	0	0.86	1.73	0.92	10.35	0.00	0	3.95	3.29	0.78	39.32	60.68	100
HU	0.77	0.38	1.49	0	5.59	0.02	0.03	4.12	0.97	1.04	20.79	79.21	100
IT	0.47	0.13	0.82	1.01	0	0.01	0.04	1.67	0.28	0.95	38.84	61.16	100
RO	2.81	0.55	0.46	4.94	17.78	0	0	0	0	0.36	29.72	70.28	100
SI	0.56	3.09	8.74	2.84	12.37	0.43	0.52	1.22	3.53	0	31.61	68.39	100
2007													
BG	0	0.20	0.93	1.06	10.30	0.25	0.04	4.89	4.41	1.57	39.17	60.83	100
HU	0.85	0.39	1.49	0	5.65	0.02	0.03	4.51	1.25	1.10	21.04	78.96	100
IT	0.49	0.14	0.77	1.02	0	0.01	0.04	1.64	0.33	1.04	39.09	60.91	100
RO	3.18	0.18	0.40	5.72	17.03	0.03	0.04	0	1.05	0.56	28.02	71.98	100
SI	0.73	3.01	7.98	3.81	12.41	0.40	0.64	2.00	3.88	0	30.69	69.31	100
2008													
BG	0	0.35	0.83	0.94	8.37	0.29	0.07	7.25	4.36	0.79	40.03	59.97	100
HU	1.03	0.53	1.58	0	5.42	0.03	0.06	5.32	1.41	1.16	21.82	78.18	100
IT	0.52	0.17	0.85	0.99	0	0.01	0.06	1.69	0.33	1.08	41.14	58.86	100
RO	4.15	0.21	0.29	5.12	15.49	0.03	0.09	0	1.38	0.48	29.46	70.54	100
SI	0.78	3.29	8.28	3.74	11.65	0.47	0.63	2.04	4.05	0	31.91	68.09	100

Source: Authors' computations, based on Eurostat data.

As regards the overall **imports**, **Italy** was again a very important market for the Adriatic Danube countries that were also EU members (also especially for **Bulgaria**, **Romania** and **Slovenia**), **Hungary** was an important market for **Romania** and a significant one for **Bulgaria** and **Slovenia**, **Bulgaria** became a significant market for **Romania**, and **Romania** became important for **Bulgaria** and was significant for **Hungary** and, less, for **Italy**. From among the Adriatic Danube non-EU countries, **Croatia** and **Serbia** were significant markets for **Slovenia** (see Table 2).

³ EU member only from 2013.

Table 2

Total Imports – Partner Country Shares in National Totals

	2006												
	BG	BA	HR	HU	IT	KS	MN	RO	SE	SI	EU27 ExtEU	EU27 IntEU	Total
BG	0	0.11	0.27	1.54	10.54	0	0	4.52	1.09	0.62	38.86	61.14	100
HU	0.19	0.20	0.23	0	4.55	0	0.03	2.76	0.23	0.60	29.78	70.22	100
IT	0.36	0.11	0.45	0.96	0	0.00	0.05	1.22	0.21	0.56	42.45	57.55	100
RO	0.95	0.15	0.14	3.27	14.52	0	0	0	0	0.47	36.64	63.36	100
SI	0.55	2.10	4.60	3.49	17.77	0.03	0.10	0.60	1.35	0	22.25	77.75	100
	2007												
BG	0	0.11	0.37	3.07	8.66	0.01	0.00	4.53	0.80	0.82	41.55	58.45	100
HU	0.14	0.21	0.30	0	4.52	0.00	0.13	2.17	0.33	0.91	30.52	69.48	100
IT	0.34	0.11	0.37	1.08	0	0.00	0.04	1.18	0.22	0.62	42.29	57.71	100
RO	1.19	0.07	0.12	6.95	12.72	0.01	0.00	0	0.47	0.94	28.70	71.30	100
SI	0.81	1.81	4.63	3.29	17.06	0.02	0.10	0.62	1.66	0	26.26	73.74	100
	2008												
BG	0	0.06	0.26	2.80	7.95	0.03	0.00	5.62	0.73	0.83	43.30	56.70	100
HU	0.15	0.17	0.34	0	4.27	0.00	0.01	2.14	0.35	0.91	31.79	68.21	100
IT	0.31	0.12	0.36	0.99	0	0.01	0.03	1.15	0.19	0.60	45.35	54.65	100
RO	1.83	0.08	0.11	7.51	11.58	0.00	0.01	0	0.43	0.83	30.31	69.69	100
SI	0.54	1.77	4.14	3.56	16.52	0.01	0.16	0.62	1.74	0	28.74	71.26	100

Source: Authors' computations, based on Eurostat data.

However, when considering the **product groups** (the analysis was based on broad product groups, as according to the standard SITC classification, over the 2006-2008 interval) significant differences revealed among the Adriatic Danube countries. A simplified set of indicators was used, including the *shares of partner countries in product group exports and imports of a given country* and the *specialization index* (as a measure of comparative advantage), computed according to the formula proposed by Neven (1995).

$$ACA = (x_i^k / \sum_i X_{ij} - m_i^k / \sum_i M_{ij}) * 100$$

where: x_i^k is the exports of sector i of country j to partner country k (the share in the national exports of a given sector exports to a given partner), and m_i^k is the imports of sector i of country j from partner country k (the share in the national imports of a given sector imports from a given partner).

The variation interval ranges between 100% and -100%, but the apparent comparative advantage determined as according to the Neven formula is not often exceeding +/- 10%; if its value is positive, then a country is specialized in a given sector in relation to its partner(s), but if the value is negative one may say that a country is sub-specialized in a given sector in relation to its partner(s).

By product groups, the analysis revealed the following:

- Italy and Hungary and, to the end of interval, Romania, were important and significant *exports markets* for the ADC Project countries that were also EU members for products included in group 0 – *Food and live animals*, while Bulgaria was an important export market for Romania and Slovenia was a significant market

for Hungary and Italy. Bosnia and Herzegovina was an important export market for Slovenia and a significant one for Hungary, Croatia an important market for Slovenia and a significant one for Hungary and Romania, Kosovo and Montenegro significant markets for Slovenia, and Serbia a significant market also for Slovenia. As regards the *imports*, Italy and Hungary were clearly important and significant markets for the ADC Project countries that were also EU members, Bulgaria became an important market for Romania and vice-versa, and Slovenia was a significant market only for Hungary. From among the non-EU Adriatic Danube countries, Croatia was important import market for Slovenia and a significant one for Hungary, and Serbia a significant one for Slovenia. Considering the *specialization* in the trade flows of group 0 – Food and live animals among the Adriatic Danube countries, one may see that all the EU countries recorded very high and high indices in their relationships with Bosnia and Herzegovina, Kosovo and Montenegro (except for Romania), and also in their relationships with Romania (in 2008), Hungary and Slovenia recorded high indices in their relationships with Italy, Hungary in its relationship with Slovenia, and Bulgaria and Romania in their relationships with Croatia. High and very high *de-specialization* indices were recorded by the Adriatic Danube EU countries in their relationships (excluding themselves, of course) with Bulgaria, Hungary and Serbia.

- The important and significant *exports markets* for the Adriatic Danube countries in the case of group 1 – *Beverages and tobacco* – were fewer, suggesting a “country-pair” pattern: Italy for Romania and Slovenia, Romania for Bulgaria and Hungary, Bulgaria for Romania, Croatia for Hungary and Slovenia, Hungary for Romania, Slovenia for Hungary, and Bosnia and Herzegovina, Kosovo, Montenegro and Serbia for Slovenia. The important and significant *imports markets* were also fewer: Italy for all the rest of the Adriatic Danube EU countries, Bulgaria for Romania, Hungary for Romania and Slovenia, Romania for Bulgaria, Hungary and Italy, and Croatia for Hungary and Slovenia. Consequently, the trade *specialization* was low among the considered country, some significant indices being recorded by the Adriatic Danube EU countries in their relationships with Kosovo, by Bulgaria and Slovenia in their relationships with Montenegro and Bosnia and Herzegovina, and by Romania in its relationships with Croatia and Italy.
- The product group 2 – *Crude materials, inedible, except fuels* – recorded higher export and import values, Italy being the most important *exports and imports market* for the Adriatic Danube countries. Other important and significant *exports markets* were Bulgaria for Romania, Hungary for Bulgaria, Romania and Slovenia, Romania for Bulgaria, Hungary and Italy, and Slovenia for Hungary and Italy. From among the Adriatic Danube non-EU countries, Bosnia and Herzegovina was a significant exports market for Hungary and Slovenia, Croatia for Slovenia and Italy, and Serbia for Bulgaria, Hungary and Slovenia. As regards other important and significant *imports markets*, one may mention Bulgaria again for Romania, Hungary for Italy, Romania and Slovenia, Romania for Bulgaria and Hungary, Slovenia for Italy, Bosnia and Herzegovina for Romania and Slovenia, Croatia for Slovenia and Italy, and Serbia for Bulgaria and Slovenia. However, very few high and significant *specialization indices* were recorded in the trade relationships among the Adriatic Danube EU countries, only in the relationships of Romania with Bulgaria, of

Bulgaria and Romania with Hungary, of Bulgaria, Hungary and Slovenia with Italy, and of Bulgaria, Hungary and Romania with Slovenia. As regards the Adriatic Danube non-EU countries, one may notice the very high and high *de-specialization* indices in the relationships of the EU countries with them, except for a positive index in the case of relationships of Romania with Montenegro and Serbia, suggesting a likely “one-way” pattern.

- The important and significant *exports markets* among the Adriatic Danube countries EU countries in the case of product group 3 – *Mineral fuels, lubricants and related materials* – are few, namely Bulgaria and Hungary for Romania, Italy for Bulgaria and Slovenia, and Slovenia for Bulgaria, Hungary and Italy. However, one may notice important and significant exports markets for the EU countries among the Adriatic Danube non-EU countries: Bosnia and Herzegovina for Slovenia and Hungary, Croatia for all the ADC Project EU members (except for Romania), and Serbia for Bulgaria, Hungary and Romania. The important and significant *imports markets* are fewer in the considered area: Italy for Slovenia, Romania for Bulgaria and Hungary, Bulgaria for Slovenia, Hungary for Romania and Slovenia, and Croatia for Slovenia. Due to the specific of the group, one may notice, in general, very high *specialization indices* in the relationships of the Adriatic Danube EU countries both with partners from the same group and with partners from the Adriatic Danube non-EU countries, *de-specialization* prevailing mostly in the relationships of Slovenia with the above-mentioned groups of countries.
- The product group 4 – *Animal and vegetable fats, oils and waxes* – recorded lower values regarding the trade among the Adriatic Danube countries, but some highly specialized *exports markets*: Bulgaria for Romania and less for Hungary, Romania for Bulgaria and Hungary, Italy for Hungary, Romania and Slovenia, Hungary for Romania and Slovenia, Croatia for Slovenia, Bosnia and Herzegovina for Hungary and Slovenia and Serbia for Bulgaria and Slovenia. Highly specialized *imports markets* were also noticeable: Italy for the rest of the Adriatic Danube EU countries (especially for Slovenia), Hungary and Bulgaria for Romania and vice-versa, Serbia for Slovenia, and Croatia and Bosnia and Herzegovina also for Slovenia. Given the “two-ways” trade pattern, *specialization* is almost missing within the trade relationships of the countries in the area concerning that group of products.
- In what regards the product group 5 – *Chemicals and related products* – Italy was proven to be the most important *exports and imports market* for the Adriatic Danube countries. Important and significant *exports markets* were also Bulgaria and Hungary for Romania and vice-versa, Bulgaria for Hungary and Slovenia, Hungary for Italy and Slovenia, Romania for Slovenia and Slovenia for Bulgaria and Hungary, Bosnia and Herzegovina for Slovenia, Bulgaria and Romania, Croatia for Slovenia, Bulgaria and Hungary, and Serbia for Slovenia, Bulgaria, Hungary and Romania. The important and significant *imports markets* among the countries in the area were fewer: Hungary for Bulgaria, Romania and Slovenia, Romania for Bulgaria and Hungary, Bulgaria for Romania, Slovenia for Bulgaria, Hungary and Romania and Croatia and Serbia for Slovenia. Very high and high *specialization* indices were generally recorded in the trade relationships of the

Adriatic Danube EU countries with the non-EU group (less for Serbia, with the exception of its relationship with Slovenia), and also in their trade relationships with countries in their own group: for Hungary, Slovenia and Italy in their relationships with Bulgaria and Romania, for Italy and Slovenia in their relationships with Hungary, and for Italy in its relationship with Slovenia.

- Italy was also the dominating *exports and imports market* within the Adriatic Danube group of countries in what regards the trade with commodities belonging to group 6 – *Manufactured goods classified chiefly by material*. Other significant *exports markets* in the area were Hungary and Romania for the rest of the Adriatic Danube EU countries, Bulgaria for Hungary and Romania, Slovenia for Hungary and Italy, Croatia for Slovenia and Hungary, Serbia for Bulgaria, Hungary, Romania and Slovenia, and Bosnia and Herzegovina for Slovenia. Important and significant *imports markets* were also Hungary for Romania, Bulgaria and Slovenia, Romania for the rest of the Adriatic Danube EU countries, Bulgaria for Romania, Slovenia for Italy, Bosnia and Herzegovina and Croatia for Slovenia, and Serbia for Bulgaria and Slovenia. Consequently, very high and high *specialization* indices were recorded in the relationships of all the Adriatic Danube EU countries with Hungary, of Bulgaria and Italy with Romania, of Romania with Slovenia, of Bulgaria and Slovenia with Italy, of Slovenia with Bulgaria, of Italy, Romania and Slovenia with Bosnia and Herzegovina, of Italy and Slovenia with Croatia, of Hungary, Romania and Slovenia with Kosovo, and very high *de-specialization* indices in the relationships of all the Adriatic Danube EU countries with Serbia and with Montenegro.
- The most advanced of all the Adriatic Danube economies, Italy was again the main *exports and imports market* as regards the trade with products belonging to the technically most advanced, though very eclectic group 7 – *Machinery and equipment, including for transport*. However, among the increasingly important and significant *exports markets* for the countries in the area one may also notice Hungary and Romania for the rest of the ADC Project EU countries, Bulgaria for Romania, Slovenia for Bulgaria, Serbia for Bulgaria and Slovenia, and Bosnia and Herzegovina and Croatia for Slovenia. Among the other important and significant *imports markets* one may include Hungary for the rest of the ADC Project EU countries, Romania for Bulgaria and Hungary, Slovenia for Bulgaria and Romania, and Bosnia and Herzegovina and Croatia for Slovenia. In what regards the trade *specialization*, one may first notice the generally high levels of both *specialization* and *de-specialization indices* in the trade relationships of the Adriatic Danube countries with products belonging to group 7, pointing among others towards sub-group and even product specializations on the markets in the area. Thus, the highest *specialization indices* were recorded in the relationships of Hungary, Italy and Slovenia with Bulgaria, of Slovenia with Hungary, of Hungary with Italy, of Italy with Romania, of Bulgaria, Italy and Romania with Bosnia and Herzegovina, of Hungary, Italy and Slovenia with Croatia, of Bulgaria, Italy, Romania and Slovenia with Kosovo, of Hungary, Italy and Slovenia with Montenegro and of Hungary, Italy, Romania and Slovenia with Serbia, while the highest *de-specialization indices* were recorded in the relationships of Romania with Bulgaria, of Hungary with Bulgaria and Italy, of Bulgaria and Romania with Italy, of Hungary with Romania, of

Hungary, Bulgaria and Romania with Slovenia, of Hungary with Bosnia and Herzegovina and with Kosovo, and of Bulgaria and Romania with Croatia and with Montenegro.

- Italy was once more the dominant *exports and imports market* for the ADC Project countries in what regards the trade in commodities belonging to group 8 – *Miscellaneous manufactured articles*; a group with still important, but decreasing export and import values and very diverse technological sophistication. From among the other (few) significant *exports markets* in the area one may also notice Hungary for Romania, Slovenia and Bulgaria, Romania for the other Adriatic Danube EU countries, and Croatia, Bosnia and Herzegovina and Serbia for Slovenia, while among the other important and significant imports markets one may mention Hungary for Romania, Slovenia and Bulgaria, Romania for Bulgaria, Hungary and Italy, Bulgaria for Italy and Romania, Slovenia for Hungary, and Croatia, Bosnia and Herzegovina and Serbia for Slovenia. The *specialization* was high in the trade relationships with products belonging to group 8 of Bulgaria and Romania with Italy, of all the Adriatic Danube countries EU countries with Hungary, but also with Kosovo and Montenegro, of Slovenia with Bulgaria, of Bulgaria with Romania, and of Romania with Slovenia, while high *de-specialization indices* were recorded in the relationships of the Adriatic Danube EU countries with Bosnia and Herzegovina, Croatia (except for Romania) and Serbia (except for Slovenia).

IV. Conclusion

In conclusion, one may notice that Italy was by far the most important partner for the Adriatic Danube countries considering the trade relationships among them, but Hungary, Slovenia, and even Romania and Bulgaria from among the EU countries and Croatia, Serbia and Bosnia and Herzegovina from among the non-EU countries also advanced as *important partners*, both overall and considering the bi-lateral trade. Another feature is the *significant amount of trade between the neighbor countries* (Hungary with Romania and Slovenia, Romania with Bulgaria and Hungary, Bulgaria with Romania and Serbia, for instance), but also within a broader group (Slovenia with all the Balkan countries, for instance), pointing towards configuration up to a certain level of an *Adriatic-Danube "regional" market* that opens opportunities for national and cross-border cluster creation and cooperation.

Italy was also the *most important exports and imports market* for the countries in the Adriatic Danube countries in what regards trade with a broad range of commodities (ranging from *food* to *machinery*, from *chemicals* to *miscellaneous manufactured products*). Nevertheless, other countries revealed increased specialization in products with medium and higher technological sophistication, most prone for cluster development, such as Hungary, Slovenia, Romania, Bulgaria, Croatia, Serbia and Bosnia and Herzegovina. Trade in *food products* (especially bi-lateral trade) is also a feature of the countries in the area, which may be exploited further in collaboration and cluster creation and development.

After deep investigations during the ADC project, based on the results of the national context and SWOT analyses, with the support of stakeholders and opinion leaders, as

well as based on the discussions with representatives of the existing or in progress national clusters within Regional Focus Groups, Sectoral Working Groups and national Forums which have taken place during the project implementation, four strategic sectors of common interest for all the project partners were identified and agreed by the countries' representatives in the project for transnational clusters' development: the sector of Agro-food (processing, preservation and packaging of food products and related technologies), the sector of Modern Housing (building and modernization of dwellings), the sector of Logistics and the Sector of Mechatronics (see Figures 1-4). There are still some other potential economic sectors for cooperation to be identified further.

The identification of the four strategic sectors is a first step to overcome the current situation which is characterized by the lack of an exchange of information among the countries in South-East Europe on their potential for entrepreneurial cooperation, which can facilitate trade exchanges, specialization, access to innovation, joint initiatives on the global markets, in order to build a regional economic identity of the Adriatic-Danube area as an integrated productive system of high competitiveness and strengthening its capacity of attracting foreign investors.

Figure 1

Transnational Cluster in the Agro-food Sector



Source: Adriatic Danubian Clustering (ADC) Project DVD 2012, ADC BEST OF, Contribution of Institute for Economic Forecasting (IPE) Team.

Figure 2

Transnational Cluster in the Logistics Sector



Source: Adriatic Danubian Clustering (ADC) Project DVD 2012, ADC BEST OF, Contribution of Institute for Economic Forecasting (IPE) Team.

Figure 3

Transnational Cluster in the Mechatronic Sector



Source: Adriatic Danubian Clustering (ADC) Project DVD 2012, ADC BEST OF, Contribution of Institute for Economic Forecasting (IPE) Team.

Figure 4

Transnational Cluster in the Modern Housing Sector



Source: Adriatic Danubian Clustering (ADC) Project DVD 2012, ADC BEST OF, Contribution of Institute for Economic Forecasting (IPE) Team.

The four strategic sectors represent in fact a framework for setting up transnational competitive chains of SMEs, as pillars of growth and attractiveness in the area, stimulation of productive capacities of companies, so that to create cluster networks in these strategic economic sectors, meant to improve the transnational competitive chains of SMEs and, thus, contribute to the reduction in regional disparities and to the increase in attractiveness of the South-East Europe area.

The goal of ADC project was to support the companies in these four economic sectors of strategic importance for the countries involved in the ADC project, preferably integrated in national clusters, to cooperate among themselves for the formation and/or development of competitive and effective transnational clusters.

The advantages of integrating companies in transnational clusters via the ADC project might be mainly the following:

- Priority to European funding, on the occasion of calls for proposals of projects, meant to promote and develop transnational clusters;
- Enlisting the companies in a common data base of the nine partner countries, structured on the four sectors mentioned above, creating in this way a virtual platform which will be active even after the project is completed and which will facilitate the initiation and consolidation of cooperation among the respective companies;
- Mutually knowing about opportunities for cooperation between enterprises/firms/companies in the nine partner countries in the project.

- Acquiring an important and direct experience on the markets of South-East Europe by direct contact with the economic and entrepreneurial realities in this area;
- Facilitation of an exchange of knowledge on the production processes, for an easier and effective collaboration, as well as for a more active presence in the South-East European countries.;
- Promotion of new trade relations among the companies that cooperate in producing a finished product, as well as among the local production systems involved.

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