Cluster Mapping Report for the Republic of Moldova

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Content

1. RATIONALE

ODIMM – the Organization for Small and Medium Enterprise Sector Development – has started the process of identification and support of the clustering process in the Republic of Moldova, as part of their mission to support the development of the SME Sector.

There is a track record of several past initiatives on cluster development in the Republic of Moldova out of which the FP6 Project "Future for Moldova", the Small and Medium Enterprise Sector Development Strategy for 2012-2020 approved by the Government No 685 of 13 September 2012 or Innovative Strategy of the Republic of Moldova for the period 2013-2020 "Innovation for Competitiveness" are only a few examples. Despite these strategies, local initiatives on clustering are still limited and a specific government programme on clustering is not yet in place. Though several fragmented cluster initiatives have been brought into discussion, the Republic of Moldova finds itself in a very early stage in the matter.

In this regard, ODIMM, with the support of EU, has the intention to contribute to the improvement and development of the SME sector through clustering innovation. The action aims to generate strong cluster initiatives in the Republic of Moldova based on the European and international experience. For that purpose, ODIMM has resorted to EU help via the TAIEX instrument.

In that context, prof. dr. Tim Buyse and Mr. Daniel Cosnita, the authors of this report, have been assigned a series of TAIEX-expert missions to the Republic of Moldova with following goals:

- the development of **a cluster mapping** which should identify the clusterisation potential at the regional level;
- the generation of **pilot clusters**;
- an elaboration of an indicative **cluster financing programme** for the Ministry of Economy

The current report represents the result of the mapping process.

2. General Considerations on Clusters

2.1 Theoretical Background

Michael Porter is considered to be "The Spiritus Rector" of economic policies based on cluster development. He formulated the well-known definition of clusters as being geographic concentrations of interconnected companies and institutions, from a particular field. Clusters include a group of related industries and other important entities in terms of competition. These include, for example, suppliers of specialized inputs such as components, machinery and services, or providers of specialized infrastructure. Often, clusters extend downstream to various distribution channels and customers and laterally to manufacturers of complementary products and to industries related by skills, technologies or common inputs. Finally, some clusters, i.e. the innovative clusters, include governmental and other institutions - such as universities, research institutes, standards agencies, think tanks, vocational training providers and employers - that provide specialized training, education, information, research and technical support. (M. Porter 1998)

In the European Commission's communication COM (2008) 652 / 2008 „Towards world class clusters in the European Union, the implementation of the strategy based on innovation", clusters are defined as a group of enterprises, adjacent economic actors and institutions localized in territorial proximity and which have achieved the requested size needed for the development of specialized expertise, services, abilities and suppliers. (European Commission 2008).

The first economist describing clusters from a „supply chain" perspective was Alfred Marshall (1842 – 1924), who, in his analysis of English industrial agglomerations, observed the externalities triggered by groups of geographical groups of enterprises acting in the same sector:

- effects on the labour force. Marshall noticed that a concentration of similar companies attracted, developed and made use of a "labour force basin" with a common qualification set. Moreover, the specialized workers have a reduced economical risk because of such a great number of employers;
- effects on the specialisation of suppliers. Marshall also detected that industrial concentrations developed a good market for suppliers and great conditions for them to improve and specialize their offer. This translated into productive advantages for the clients;

- effects on the transfer of know-how. Marshall discovered that ideas “travelled” a lot faster from one firm to another in an environment of industrial concentration. This actually represented a definition of technology transfer „avant la lettre”. (Marshall 1920)

Later, one of the most prominent regional scientist, the urbanist Jane Jacobs, argued that cities play a major role in economic development. Although not a true economist, but a good observer of urban realities, she came to the conclusion that “city knowledge” was the trigger of economic progress. Cities played the role of what we call today “urban growth poles”. The size and diversity of the cities lead to new ideas. In Jacobs’ opinion, creation of new products and technologies is a source of economic development. (Jacobs 1969)

Traditionally, the economic success of a region/country depended directly on the availability and abundance of the production factors: labor, capital and land/nature. This classical theory of economic development explained very well the economic phenomenon of the 19th century. Later, along with the amazing success of countries such Japan or of regions such Silicon Valley, which were completely bare of any resources, this theory proved to be outdated. The solution was found by Michael Porter who, in his masterpiece “Comparative advantage of nations” (1990) showed that the economic success depended on the interaction of various factors, which later were grouped in “Porter’s diamond”.

In the current industrial context, innovation is now a *conditia sine qua non* for economic success and maintaining the enterprises on the business market. Innovative clusters are recognized as key drivers of innovation and economic growth through the development of a collaborative and multi-sectoral approach but also by stimulating interactions between innovation actors. Innovation can be seen as a result of interactions between different actors from the innovative systems. The systemic vision towards innovation was initially challenged by Lundvall (1992), Nelson (1993) and more recently by Guth (2004). Considering these new ideas, the traditional linear model of innovation becomes gradually less relevant. Learning, trust and social capital turn into foundation piles of this model.

Given the above, economic practice validated the model known in the literature as the "triple helix" that brings together in an innovative cluster the representatives of:

- enterprises, representing the economic side of the cluster;

- universities and research organisations, representing suppliers of innovative solutions applicable to the real needs of enterprises in the cluster;
- local and regional authorities.

2.2 SELECTED INTERNATIONAL EXAMPLES

2.2.1 FLANDERS AND ITS DUAL CLUSTER MODEL

In 2015, the Flemish government initiated its cluster policy with the aim of accelerating the transformation of the economic fabric and reinforce the knowledge-driven character of the economy. The main idea was to develop an entrepreneurial-driven targeted cluster policy (i.e. based on an entrepreneurial discovery process) and to make clear choices for specific sectors and cluster that are consistent with the strengths of Flemish industry and knowledge institutions. The main objectives are to:

- unlock unused economic potential and increase competitiveness through active and sustainable collaboration between all cluster members
- contribute to the solution of societal challenges with direct economic value creation for Flemish companies
- create economic value added through increased turnover by export or new markets, job creation, skill development, investments and cost reduction

It is interesting to mention that the Flanders cluster program focusses on two types of clusters: (i) spearhead clusters and (ii) innovative business networks. Table 1 gives an overview of the main characteristics of and differences between the two types of clusters.

First, spearhead clusters are clustering initiatives of strategic importance for the Flemish economy. A limited number (approx. 5) of large scale clusters that are ambitious, knowledge-driven and have a representative role for the domain of activity are selected and financially supported. These spearheads should be internationally oriented and be characterised by a commitment from all partners (cluster management organisation, industry members, government, knowledge institutions) is of crucial importance. To date, 6 spearhead clusters have been officially recognised by the Flemish government: Flanders Food, Catalisti (chemistry and plastics), Flux50 (energy), VIL (sustainable logistics) and SIM (smart materials) and the ‘Blauwe Cluster’ (Maritime).

Spearhead clusters’ management organisations receive financial aid for their functioning – partnermatching, development of a long-term vision and action plan, trendwatching,

representation of the cluster, point of contact … – from the government for a maximum period of 10 years. Cluster member activities – common market research and acquisition, demonstration projects and user testing, cooperation projects, common branding, common tenders, learning networks, common education … – are supported by the government's regular economic aid instruments.

Second, the Flemish government wanted, with its cluster program, to initiate dynamics and collaboration between groups of enterprises within potentially 'new' economic domains in Flanders. The focus lies on intense collaboration between (at least 10) firms in order to execute a specific action and competitiveness program. Innovative business networks differ from spearhead clusters in size, maturity, time horizon and ambition. In contrast to spearhead clusters, innovative business networks are financially supported for a more limited duration of maximum 3 years. Whereas collaboration with other organisations (federations, capital funds, knowledge-institutions, governments) is possible, it is not required. To date, a number of 16 innovative business networks have been selected, with a new project call currently ongoing.

Table 1: spearhead cluster and innovative business networks in Flanders

Spearhead clusters	Innovative business networks
• Ambitious companies have the lead • Collaboration is key • Commitment from companies • Cluster organisation = facilitator • Remove bottlenecks that limit collaboration • Knowledge creation and implementation (as a mean) • international	
Strategic domains	Bottom up
Ambitious, long-term plan (10 years)	Short term (3 years)
Triple helix	Focus on companies
Limited number for Flanders	Starting clusters and emerging industries
Commitment of companies and government (cluster pact)	

2.2.2 ROMANIA AND THE "FOUR LEAVES CLOVER" CLUSTER MODEL

Romanian experience has shown that the three natural partners of the "Triple Helix" model do not cooperate. Moreover they do not know nor talk to each other without any help. Hence came the need to adapt the model and transform it into a "Four Leaves Clover" model, the fourth actor being the catalyst organizations such as consulting firms specialized in technology transfer and

innovation, technology transfer centers, chambers of commerce, business incubators etc. (Cosnita D. 2016).

The model is best exemplified in the case of the Romanian wood and furniture cluster, Pro Wood, which was generated with support of the FP7 Programme – Regions of Knowledge in the frame of the project run between 2008-2010. After a comprhensive analysis of the regional status quo performed at the level of SMEs, an action plan has been developed and pilot actions undertaken. Principal actions have envisaged enhancing the cooperation between wood processing enterprises and vocational highschool, developing a reliable marketing strategy and fostering cooperation between the university and the SMEs. The project ended with the signing of the cluster agreement in April 2010.

"Pro Wood" was the first Romanian cluster to use the "four leaves clover" model which in addition to the classical triple helix actors has included and/or beneficiated from other organisations playing a catalyst role in the process of cluster generation (Figure 1)

Figure 1: The „4 leaves clover" in the case of Pro Wood

Pro Wood has become a national model adopted by the Romanian Ministry of Economy, the Romanian Cluster Association – CLUSTERO and diverse financing programmes dedicated to clusters that followed in the last 10 years.

3. MAPPING METHODOLOGY

3.1 MAPPING VECTORS

The mapping methodology adopted to the Moldovan economy is based on a qualitative "peer review" approach. The rationale behind this methodology is the fact that a) statistical data (quantitative approach) always have the disadvantage of being outdated by the time they are used; b) experts know better what is happening in their own region and c) clusters are more than a collection of economic indicators, i.e. they deal with the willingness of regional actors committing themselves to achieve common goals and to build a common identity.

However, the qualitative results of the mapping should be further validated by quantitative data in order to cut off errors coming from the relevance of the "peer group" taking part in the mapping exercise. It is therefore of utmost importance that all relevant actors are invited: regional policy makers, industry, cluster initiatives, regional development structures such as business incubators and technology transfer centres, academia, civil society.

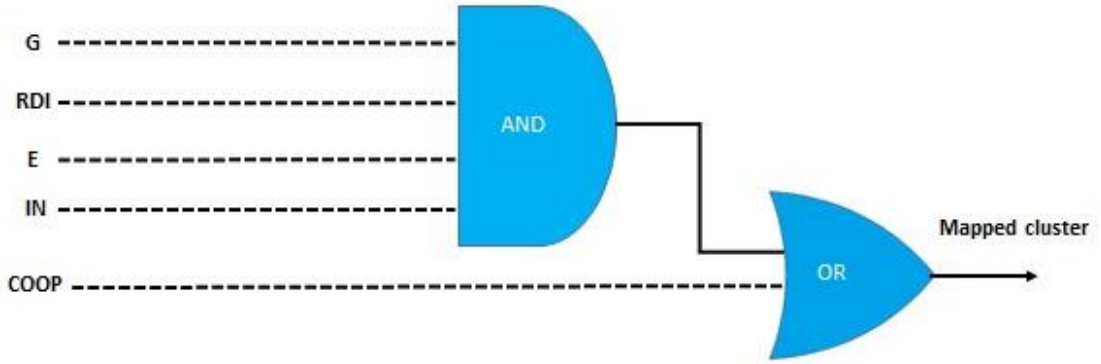
Given the cluster theory and international experience, following indicators have been assessed during the mapping procedure:

- ***Geographic concentration (G)*** – investigates the concentration of a certain economic sector/industry in a certain area (regional or even deeper);
- ***RDI (RDI)*** – inquires the presence of universities and research institutes, in that geographical agglomeration;
- ***Labour Force (E) –*** investigates the availability (quantity) and the quality of the labour force as well the existence of qualification and training systems on the economic agglomeration level;
- ***Cooperation (COOP)*** – investigates the existence of partnership agreements and the level of cooperation between the members of the industrial/economic agglomeration. Cooperation between members is a critical factor that differentiates a cluster from a branch association well represented at the regional level.
- ***Internationalisation (IN) –*** investigates the cluster degree of orientation towards international markets.

Given the qualitative dimension, measuring results is done in binary form; so, a good representation of a vector will be quantified by 1, while the absence by 0. Thus, the result is

obtained after applying a logical function of type “AND” and “OR”, as highlighted in the figure below:

Figure 2: Schematic illustration of the applied mapping methodology



3.2 THE MAPPING EXERCISES

The cluster mapping analysis has been performed and applied at the regional level. The concept of “region” may vary from country to country, but for the Republic of Moldova, the development regions “North” (Soroca), “Centre” (Nisiporeni) and “South” (Cahul) as well as the capital Chisinau have been considered relevant.

Peers of representative members from the following categories have been invited to the workshops:

- Industry: relevant enterprises in the region, professional and employers’ associations
- Academia: universities, research institutes, private research centers
- Policy makers: regional development agencies, county (“raion”) councils, local councils, ministries, national innovation and economic agencies
- Catalyst institutions: technology transfer centres, business incubators, banks, chambers of commerce etc.

The workhsops have been attended by 20 peers on an average and the agenda always consisted of two parts:

- a 1st part was dedicated to general presentations of the regional economic environment and relevant regional initiatives as well as on the topic of clusters in international context.
- a 2nd part was dedicated to the “peer review”, i.e. the mapping exercise itself.

The workshops took place in the business incubators of ODIMM (with the exception of Chisinau where it took place at the ODIMM premises themselves) as the aspect of neutrality has to be considered in order to avoid biased results of the exercise. The workshops itself lasted no more than 3 hours including breaks.

After the presentations of the 1st part and the break, peers have been asked to name the most relevant economic sectors in their region. A list of relevant sectors resulted and were summarised schematically such as in Table 2.

Table 2: Schematic representeation of the relevant sectors in the region and their characteristics

Sector	Geographical Concentration (G)	RDI	Labour Force (E)	Internationalisation (I)	Cooperation (COOP)
Sector 1					
Sector 2					
……..					
Sector n					

After the final list of the relevant sectors has been decided upon, cards have been handed out to the peers for each of the mapping indicators. They have been invited to write down, in a synthetic manner, why they considered one or the other sector relevant from the point of view of the vectors (see 3.1). An open discussion followed in order to consolidate the results.

4. MAPPING RESULTS

4.1 FIRST RESULTS OF THE WORKSHOPS

As already stated above the mapping workshops took place in Chsinau (26.03.18), Nisiporeni (27.03.18), Cahul (28.03.18) and Soroca (29.03.18). The authors have identified in Table 2 all potential cluster initiatives based on ongoing cooperation activities and relevance of the sectors in the according regions.

Table 3: Clusters per region identified by peers

Region	Cluster Initiatives identified by peers
Chisinau	Textiles, automotive, ICT, furniture, agro-food, tourism, metallic construction, wine
Centre (Nisiporeni)	Wine, fruit processing, meat processing, beekeeping, dairy, panification, footwear, textiles, automotive
South (Cahul)	Agrofood, construction,wellness, wine, rural tourism, textiles, creative industries, beekeeping, renewable energy, public utilities
North (Soroca)	Textiles, Agrofood, tourism, automotive,

Against this background, we can make the following remarks:

- All workshops revealed a strong commitment of local stakeholders understanding the need of enforced cooperation in order to increase the level of competitiveness based on innovation and internationalization.
- The workshop in Chisinau revealed the difficulty of distinguishing between the national and regional level; the workshop benefited from a strong input from the universities and industrial associations, especially in the textile sector.
- The workshop in Nisiporeni showed the strong commitment of the local and regional public authorities willing to support cluster development in the region
- Cahul represents a good example to show the importance of the business incubator in its role as the catalyst institution in the cluster development process
- Soroca revealed a higher level of maturity of cooperation initiatives according to the fairly more industrialised level of the region
- A rather negative aspect must be highlighted in the relatively weak presence of representatives of academia to the workshops. On the other hand, vocational secondary schools have been very well represented in all workshops.

The extensive results of the workshops are to be find in annex to this report. The reader will find a mapping of the sectors in colours: green implies large potential as a cluster in the near future (that is, 1-3 years), yellow implies some potential as a cluster in the near future, red implies limited or no potential as a cluster in the near future.

4.2 Consolidated Results

Based on the agreed methodology, the experts were able to detect the sectors and economic activities with potential to become a cluster in the near future. As mentioned above, the economic activities were mapped with a colour code (green, yellow, red). These are:

- Chisinau. Green: textiles, AgroFood, wine. Yellow: ICT, automotive, tourism, metallic construction.
- Centre. Green: wine, fruit, beekeeping. Yellow: automotive,
- South. Green: creative industry, AgroFood, wine, beekeeping, Yellow: renewable energy, rural tourism, 'balnear' tourism (wellness).
- North: Green: textiles, AgroFood. Yellow: tourism.

See also Figure 2 for a schematic representation.

Figure 2: A cluster map of Moldova

In addition to the general cluster identification above, the experts have, in accordance with the initial objective of this expert mission, selected two potential pilot clusters, bearing the highest potential that will be followed-up more closely in the coming months by the experts themselves.

- Creative industry cluster in Cahul. In the Cahul business incubator, some initiatives of cooperation are ongoing in the creative industry sector, and these are able to grow in the very near future towards a real cluster initiative. A business café, bakery, 'made in Moldova' craftsman industry (laser printing on wood, leather and textile) already join forces to, for instance, organise events and exhibitions, network with international partners across the border with Romania (Galati). Together with accounting and IT services, they could build a real cluster in the creative industries. Not only does this clustering initiative has potential in Cahul, it may – in the longer run – also act as a blueprint for similar clustering initiatives at other business incubators.
- Textile in Soroca. The textile industry is of great strategic importance for the Moldovan economy (added value, export, labour force). During the workshop a concentration of textile firms were found that are interested to engage in cluster activities in the near future. The presence of qualification services, a qualitative and quantitative labour force and R&D institutions together with current cooperative activities (fairs, exhibitions, joint tendering, and collaboration with vocational schools) indicates the potential of creating a true textile cluster in Moldova in the Northern Region.

Last but not least, the experts have agreed to focus also on the development of a potential Agrofood in either the North (Soroca) or the South (Cahul) of the country as this industry also showed potential for future clustering.

5. CONCLUSIONS AND RECOMMENDATIONS

The cluster mapping exercise that have been performed for the Moldovan economy and that is based on a qualitative methodology developed by the authors, identified 20 valid potential cluster initiatives that could be further supported in becoming real clusters. These have been identified in sectors like textiles, AgroFood, wine, fruit processing, beekeeping, tourism, creative industries, renewable energies, automotive. The textile sector is by far the most advanced in terms of cooperation between stakeholders.

The Business Incubators of ODIMM can play a major role of catalysing cluster processes throughout the country, especially in creative businesses given the current profile of the incubated tenants. The relative weak commitment of the academia, however, is a major concern and the enforcement of the cooperation between SMEs and education/research organisations should be treated as high priority.

When defining cluster policy measures, the coordination between industrial and employers' associations at national level and regional cluster initiatives at the regional level should be taken into account in order to optimise both the commitment of relevant actors and intervention effectiveness.

In order to stimulate the further development towards real clusters, the identified initiatives should be supported by a dedicated financing scheme aimed at the construction of clusters with the aim of stimulating the dynamic cooperation between regional economic actors in order to increase the level of competitiveness of Moldovan SMEs based on innovation and internationalisation.

Finally, we note that the current mapping exercise has its limitations and should not be treated as being exhaustive. The methodology was conceived as a tool in assessing the current situation of cooperation and clustering in Moldova in order to correctly dimension further public cluster policy and support schemes. Therefore, the experts are aware that other existing cluster initiative could have been overlooked by this qualitative analyses. It is nevertheless the function of the future cluster financing programme to ensure that all eligible initiatives are allowed to participate into a fair and open project competition for cluster support.

6. BIBLIOGRAPHY

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ANNEXES

Results of the mapping workhsop in Chisinau

Sector	Geographic Concentration	RDI	Labour Force	Internationalisation	Cooperation
Textiles	Chisinau	UTM	Q: insufficient Q:mediu Q: ZipHouse, Chamber of Commerce, APIUS	UE, USA, UAE, Russia, Canada	Practice Stages: Vocational Schools – entreprises B2B/Fairs IT, UAE, FR Attracting FDI
Automotive	Chisinau	UTM Agricultural University	Q:Insufficient Q: Medium Q: Colegiul Transport	Germany, Japan	Fairs Study Visits
ICT	Chisinau	UTM, USM, ASEM	Q: Insuffcient Q: medium Q: Tekwill	Holland, UK	Fairs
Furniture	Chisinau	UTM	Q: insufficient Q: medium Q: -	RO, DE, UA, Belarus	
AgroFood	Chisinau	UTM, Agraricultural University, ASEM	Q: Good Q: Medium Q:	UE (86%), Russia, UAE	Periodic meetings between producers, exhibitions and fairs
Tourism	Chisinau	ASEM, USM	Q: Good Q:good Q: Centrul National de Perfectionare in Turism		Country Brand
Metallic construction	Chisinau	UTM	Q: Good Q:medium	DE, BE, RUS, IT	Share of experts

			Q: technical schools, INCECONSTR, chamber of commerce		
Wine	Chisinau	UTM, Agricultural Unversity	Q: Good Q: Qood Q: Wine Technical School, Chamber of Commerce	RO, UK, PL, Japan	Fairs Country Brand

Results of the mapping workshop in Nisiporeni

Sector	Geographic Concentration	RDI	Labour Force	Internationalisation	Cooperation
Wine	Nisiporeni	Institute of Wine Chisinau	Q : insufficient Q : mediun Q : Vocational secondary school Nisiporeni , Agro industrial college Ungheni	over 100 countries : EU, China, CSI	National Office for Wine and Vineyards cofinanced 50 :50 by the state and International Fairs; regional associations (Codru-Centru, Valul lui Traian si Stefan Voda – Sud) Joint quantitative and qualitative specifications Wine Day
Fruit	Nisiporeni	Institututul de Pomicultura Chisinau	Q: insufficient Q: medium Q: Scoala profesionala Nisiporeni , Colegiul Agroind Ungheni	Russia, EU	Association of Prune Producers Nisiporeni Association towards exports (Anenii Noi, Calarasi) Moldova Fruct, national assocation Prune Festival Nisiporeni
Meat	Anenii Noi	RD Institute for Swine Orhei	Q : insufficient Q : medium Q : -		
Beekeeping	Calarasi	Universitatea Agrara Chisinau	Q: good Q: good Q: Vocational Secondary School Nisiporeni	EU, Russia	Associatin towards export in view of export certificate, mini brand
Dairy	Calarasi	Universitatea Tehnica	Q: insufficient Q: insufficient Q: -	Domestic market	Joint study visit to Romania (17 producers, most of them from the South)

Panification	Ungheni	Research Institute for Corn Criuleni	Q : insufficient Q : insufficient Q : -	Romania,	
Footwear	Nisiporeni	Universitatea Tehnica	Q: insufficient Q: medium Q: Vocational secondary school Nisiporen, new specialization in shoemaking	Italy, Romania	
Textiles	Ungheni	Universitatea Tehnica	Q: insufficient Q: medium Q: Agro Industrial college Ungheni	EU	
Automotive	Straseni	Universitatea Tehnica	Q: good, coming from Chisinau Q: good Q: in the enterprises, dual colege with 140 study places in Straseni for this year	UE	Cooperation with local authorities towards raw material import substitution by local producers

Results of the mapping workshop in Cahul

Sector	Geographic Concentration	RDI	Labour Force	Internationalisation	Cooperation
AGROFOOD	Orașul Cahul	State University of Cahul (Faculty for Agicultural Industry) Lower Danube University Galati	Quantity: mediu Quality : mediu Qualification: 2 vocationals econdary schools in Cahul, Business Centre Cahul	Cereals -> Russia, Ukraine, Egypt	Asociatia of Ovine and Caprine Fairs Cross border cooperation with the Lower Danube University in Galati (RO) Cooperation with Biodanubius Cluster (RO)
CONSTRUCTion	Cahul		Q: medium Q: medium Q: vocational secondary school in Cahul	No	
Wellness tourism	Cahul	Sanatorium ”Nufărul Alb” Faculty of economics	Q : good Q : good	Germany, Norway, Israel, Russia, Ukraine, Romania	Cross border cooperation with the Lower Danube University in Galati (RO)

			Q : specialisation in Chisinau; Medicine college in Cahul		
wine	Gavanoasa	Wine lab in Burlacu – Terra-Vitis SRL	Q: good Q: good Q: Business Centre Grape Producer Associations (ex : Burlacu)	Italy, Egypt, Russia, Belarus, China	Grape Producer Association Participation to fairs in Romania Fair participation (joint stands) Thematic conferences – Grapes
TURISM RURAL	Valeni	Faculty of Economics/ Tourism specialisation	Q : weak Q : sweak Q : -	Germany, Holland	Joint strategy for the cultural Joint strategy to involve women in regional/rural tourism
TEXTILEs	Cahul	Laboratories in firms(design, ex: TRICON SA, Laboratorio TessileMol)	Q : good Q : good Q : Vocational secondary schools Qualification in enterprises	Italy, Germany, Spain etc.	
Creative Industries (LEASURE)	Cahul	Academy of Arts (Chișinău) Technical University(Chișinău)	Q : good Q : good Q : Association of craftsmen	Nu	Exhibitions e.g. : Made in Moldova Cross border cooperation (Lower Danube University Galati) Cultural cooperation (organization of events, exhibition) International cooperation and exchange of best practice Organisation of private thematic events (weddings, parties etc.)
beekeeping	Cahul	Business Centre Cahul	Q: good Q: good Q: Business Centre Cahul	Romania, Germany	Beekeepers'Association Joint sales Thematic conference (cooperation)
Renewable energy	Cahul		Q : good Q : weak Q : -		« Trecdanube » (elaboration and application to a H2020 project Coopeation with Trec Cluj-Napoca
Public services	Cahul	Lower Danube University Galati	Q : good Q :good Q : College/ vocational secondary school 2 in Cahul	Nu	

Results of the cluster mapping workshop in Soroca

Sector	Geographic Concentration	RDI	Labour Force	Internationalisation	Cooperation
Textiles	Soroca	Technical University Chisinay, ZIP House, Tekwill (new models), Alecu Russo University Balti	Q: good Q:good Q: vocational secondary schools Drochia, Balti, 2 in Soroca, Floresti	Italy, France, Belgium, Holland, USA, UK	Practice vocational secondary school – industry (Ermo Group) Collaboration vocational secondary school – producers – Labour Force Agency Bevera, Style by Militta & UT Chisinau, ZIP House, Tekwill to implement models, trademarks, project financed by UNDP, US AID (technology and new production lines) Cooperation for internationalsiation (joint products) : Bevera Nord, Style by Milittam Alfa Broker, common designer for several firms Participation to l national tender (Bevera Nord, Universcom, Galantis) for the Army, moldtelecom, moldova gaz Cooperation for higher production volumes (Smion Tampov)
AgroFood	Soroca (1300 firms in the county of Soroca only)	Inst Selectia Balti, Wetrade	Q: good Q: medium Q: Agricultural Highschool Soroca, Vocational secondary schhols Soroca	RUS, RO, CZ, IRL	Coroboration development of crricula highschool – Agrcultural University Practice in enterprises, roudn tables school-industry Apple Festival, Farmer's Day, Made in Moldova (apple) Entrepreneur of the Year Yearly Local Fair
Tourism	Soroca	University of Science Chisinau, Academy of Economic Studies,	Q : weak Q : weak Q : -	Romania, Germany, Italy, China	Collaboration schools – restaurant Entrepreneur of the Year Yearly party
Automotive	Balti	Technical University Chisinau	Q : good Q : good Q : dual system with the vocational secondary school Balti	Germany	