

## **Strengthening cluster performance by upgrading managerial competencies. Selected cases from Poland and Lithuania<sup>1</sup>**

### **Abstract:**

The positive impact of clusters on regional prosperity and well-being is an undeniable fact. For clusters to meet the many challenges of a globalised world they require professionalism in their management. The aim of this article is to analyse the level of competencies of cluster coordinators in Lithuania and Poland. These competencies influence cluster performance and thus also regional economic outcomes. The survey results along with an analysis of available cluster materials revealed the scale of the gap between the existing and desired competencies of cluster managers in both countries. The survey was also an opportunity to compare clusters in both countries in terms of their capacities and possessed resources. The chapter ends with a set of recommendations for cluster coordinators with the aim of strengthening cluster performance.

**Keywords:** clusters, management performance, skills, competencies

**JEL classification:** J440, M210, O290, P460

### **Introduction**

Support for the creation of production and innovation clusters is widely recognised as an effective tool for regional development. In the literature it is easy to find a large number of studies dealing with the beneficial impact of cluster structures on economic performance, both in developed market economies as well as emerging economies. Just to mention a few publications there is Porter (1998); UNIDO (2010); Kettels, Lindqvist and Sölvell (2006); Rosenfeld (1997); Jankowska (2012); and Rosińska-Bukowska (2012). The point is to create local, territorial and innovative systems based on production systems, where the interactions

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between the various actors start to run processes leading to the building of a competitive position in a globalised world. The global world is so complex that it requires interdisciplinary cooperation between various actors, in particular moving away from a linear model of concentration and co-localisation of entities concerned with the creation of innovation, moving forward to a systemic model of development and the upgrading of ideas as a result of continuous interaction. It is therefore a transition from Schumpeterian entrepreneurial capitalism to one of investors and sustainable capitalism, taking into account all types of stakeholders with a complete range of diverse needs (Rosińska-Bukowska, 2009). The adoption of the Lisbon Strategy in the European Union has increased the importance of clusters and their role in stimulating the EU economy. Member countries have started to implement additional programmes to promote business networks. Various top-down cluster initiatives were begun, led or supervised by the Agencies for Enterprise Development, Higher Universities and Technology Parks, appointed by public administration SPVs. In 1996, Denmark was the first European country that started to support clusters by formalizing existing networks. A key role in this programme was played by cluster coordinators, who had the task of developing cooperation within the cluster. However, quite soon it turned out that the lack of experience among the facilitators and cluster coordinators caused a threat to the further existence of the clusters. In addition, the growth of bureaucratic procedures meant that entrepreneurs did not want to finance perceived artificial processes, preferring to pursue joint business projects. The problems diagnosed in the mid-90s of last century are still current in many regions and countries of the European Union, in particular in the new member states of Central and Eastern Europe. The huge inflow of structural funds into Poland and Lithuania, in conjunction with a growing popularity for developing and supporting cluster initiatives from public sources, resulted in an increase in the number of clusters established. Unfortunately, the low level of competence in cluster coordination turned out to be one of the main barriers to their development. Another truth is that many of these initiatives were established simply because of the availability of public funds and often disappeared at end of the project or had serious problems with their continued existence.

### 1. The sample

Clusters from Poland and Lithuania took part in the survey. In the literature there is a distinction between business networks and clusters. According to the definition of Palmen [2009] business networks are specific forms of linkage between various actors from the

economic scene based on interdependencies, cooperation and trust. Networks can be called clusters if we give them one additional attribute – spatial concentration. Palmen explains that though there is cooperation between actors in a business network, in a cluster we can additionally derive competition between the members as well as spatial proximity. Both phenomena also differ in the way they are formally connected – clusters have less formal connections but a higher variety of entities. According to Kettel [2003], clusters must have four basic attributes:

- a) Spatial proximity – companies and other entities have to be located near to each other, so there can be a possible joint use of common resources,
- b) Connections – between all actors in terms of their desire to achieve common goals,
- c) Interactions – between all actors, not in formal but in a practical sense,
- d) Number of actors – the number has to be large enough to cross a so called critical mass.

It is difficult to assess what numbers of actors is enough to cross this critical mass, there is no one number in the practice, but each networks has to be described differentially with regard to its potential and capacities.

The study covered 9 clusters out of 32 identified in the region of Wielkopolska, and 7 out of 56 officially registered in Lithuania. The specification of the clusters is presented in Table 1.

*Table 1. List of clusters participating in the project*

<b>Poland</b>	<b>Lithuania</b>
Net.CloudCube	Kaunas CCIC: E- Business Cluster
Poznan Educational Cluster	Smart IT Cluster
Printing and Advertising Cluster	Lithuanian furniture cluster
Wielkopolska Renewable Energy Cluster	MONAK2
Wielkopolska Cluster Mebel Design	Creative industries network
Wielkopolska Cluster Centre	Alliance of Baltic Beverage Industry
Wielkopolska ICT Cluster	Innovation and Entrepreneurship Centre
Cluster Leszczyńskie Smaki	
Architectural Glass Processors Association	

*Source: Own study*

All the organisations identified in the project met the basic criteria for a cluster, which means that they had the following characteristics:

- Had specific organizational and legal form (formal form of cooperation),
- There was a concentration of the industry around the predominant industry or branch,
- There was a geographic concentration and awareness of the territorial identity of the cluster (cluster is territorially rooted),
- There was durability in the cooperation (at least in the core of the cluster),
- There was a variety of joint initiatives - the implementation of joint projects (e.g. in terms of promotion, organization of the market, sourcing, training, technology transfer, lobbying, etc.) and the existence of common elements in the value chain between companies/ institutions operating in the cluster,
- There was a variety of entities that formed the cluster (enterprises, industry R&D, public authorities, business support institutions),
- The cluster was established with a specific purpose and had some basic assumptions for further development.

## 2. Coordinators in business networks

There are no special schools for cluster coordinators and there are no certificates or diplomas for qualified cluster coordinators either. The perceived creditability of the cluster coordinator does not depend so much on his or her technical qualifications, but rather on how he or she demonstrates their application of the correct professional management skills. One can distinguish a few core competencies that an efficient cluster coordinator should have. These are as follows:

- a) Field experience – a coordinator should have experience of the industry and branch he or she operates in, so as to know the constraints that relate to the branch as well as all the peculiarities of the industry,
- b) Management expertise – a coordinator has to be a good manager, especially in terms of project management, since he or she always works through projects and never has any formal control over the members of a cluster, which is very common in such projects,
- c) Leadership abilities – a coordinator has to lead the members, facilitate activities, as well as encourage and activate stakeholders to engage in the clustering process; in other words he or she has to be a good leader,
- d) Technical qualifications – a coordinator has to possess suitable technical qualifications relevant to the cluster mandate,

- e) Devotion to the cluster goals – a coordinator has to deal with cluster business only; in particular he or she should not be engaged in projects that could be in conflict with cluster goals.

The Global Education Cluster [2010] formulates some basic strategies for effective coordination:

- 1) Be inclusive – involve and encourage all key educational actors, including national and local government authorities and organisations,
- 2) Build vertical and horizontal links – build relationships, networks, communicate and address any negative attitudes towards the cluster approach,
- 3) Complement and strengthen existing coordination structures, standards and guidelines,
- 4) Respect differing mandates, priorities, approaches, and resources, and ensure that local knowledge is harnessed,
- 5) Act as an honest broker and build trust through transparency and openness,
- 6) Share information and collaborate in key coordination activities, e.g. assessment, planning, standard setting, monitoring and review.

It is obvious that coordination of a cluster is not an easy task and requires special abilities and skills. One could assume that to become a cluster coordinator the person should normally go through a long recruitment process and pass some exams or acquire a number of certificates. In reality, the most active entrepreneurs usually become cluster coordinators, people nominated by the founding entities, but rarely professionals who have been involved for years in business management. Quite often they are random people who just happened to get involved in clusters and business networks. On the other hand, cluster management is not an easy task and is a great responsibility.

The skills and competencies of cluster coordinators - managers - can be easily assessed and measured. The assessment of the managerial competencies in Lithuania and Poland was possible due to the research project *Strengthening Business Performance Management in Economic Networks - SeBPEN* (no. 2011-1-PL1-LEO05-19900), under the Leonardo da Vinci Framework, Transfer of Innovation. The project run by the Foundation “Partners for Local Government” in cooperation with Navigator Consulting Partners LLP from the UK; the Human Capital Research and Development Institute from Lithuania; the Kaunas Chamber of Commerce, Industry and Craft also from Lithuania; as well as the Wielkopolska Chamber of Commerce from Poland enabled the scale of the problem to be examined with respect to the level of managerial competencies among clusters coordinators.

### 3. The methodology of the analysis

The coordinators and facilitators of the clusters were invited to take part in the project and complete the survey, the aim of which was to assess managerial competencies.

The general analysis procedure was as follows:

- a) The SeBPEN researcher informed the participating managers that a brief competency assessment and discussion would be held to evaluate the current view of their job performance and requirements. This took about 1 hour,
- b) The SeBPEN researcher explained the structure and questions in the assessment form in a personal meeting or, if not possible, via a Skype call. It was important to note that this was not a test, but was intended as an honest evaluation of the current situation that (on an individual level) was not going to be shared with an employer or any other source outside the project,
- c) The researcher filled out the questionnaire, asking questions if necessary,
- d) The questionnaire was collated for further evaluation,
- e) The researcher gathered additional information drawn from secondary source documents,
- f) The researcher reviewed his/her observations,
- g) The researcher and trainers combined all the information and drew conclusions.

The evaluation included a numerical evaluation of the scores, together with a qualitative evaluation of the comments. It was above all intended to illustrate the actual situation within the cluster, and explore how this situation influenced personal behaviour and performance.

The sample size was admittedly too small for cross-comparisons. Instead, the researchers decided to extract critical information. For instance, how many clusters have a performance assessment system or incentive-based pay? How many clusters have a clear strategic plan which adapts to changing circumstances? The results have been evaluated and presented together with a detailed needs analysis and training plan.

Due to the small group of selected managers, the authors abandoned a statistical analysis of the data, limiting the analysis to a qualitative analysis. Thus, in the analysis the following methods and techniques were used:

- Questionnaire Interview,

- Analysis of secondary source documents,
- Direct observation.

The basic tool for obtaining information was a questionnaire interview – an oral/written interview, explicit, individual, categorized (based on the questionnaire). In the questionnaire most competency sections for clusters had two types of self-assessment:

- a) The 1-10 scale, which gives a numerical value that can be measured,
- b) The "essay response" boxes. These allowed the checking of intangible factors which cannot be measured for each participant in the same way, and also allowed the gaining of more information on the specific status of each manager and each organisation.

In situations where the relevant data were inaccessible (specific numbers or structure), the expert interviewer had to obtain supplementary information from secondary documents. This analysis was used primarily for obtaining additional information about the clusters and the managers recruited for the project. Indeed, depending on the level of particular cluster developments, specific managerial competencies are required to manage the cluster efficiently. The basic source documents were primarily the following:

- Documents on monitoring and evaluating regional innovation strategies,
- Databases (such as a database of projects financed from structural funds) at the disposal of PARP (Polish Agency for Enterprise Development), business development departments and the regional policies of various Marshal Offices,
- Cluster Reference websites,
- Existing databases, such as the Polish Agency for Enterprise Development database (Innovation Portal Pro Inno Europe, the European Cluster Observatory),
- Analysis and research on clusters carried out by various research units (literature analysis).

Observation was a supporting method, complementary to the basic survey carried out through questionnaire interviews. It was also the primary method for obtaining information and the techniques necessary for identifying an appropriate level of competence.

At the same time there was also the indispensable prior preparation of the survey respondents, which included, among other things, the rationale for implementing such an analysis; an explanation of the purpose of the study; and an indication of the benefits of participation in the project. This took place mainly at a meeting with representatives of the clusters. This activity was also necessary to obtain quantitative data earlier, before the visit to the cluster

and the conducting of interviews. This enabled (for both experts and respondents) interviews to be held in the cluster, and also made it easier to obtain reliable data.

The SeBPEN project established the competency approach for both the initial needs assessment as well as the final assessment of the business network managers and facilitators who participated in the project. Competencies were considered as a mix of skills, experience and knowledge which demonstrate superior performance in a specific role or function. The SeBPEN competencies were selected using the following process:

- a) A detailed analysis was implemented of the project requirements and the competency definition as it relates to this project,
- b) A literature search was implemented for competencies and NVQs, along with related skill frameworks for business sector managers, business incubators, professional associations, clusters and similar groups,
- c) A draft list of 19 competencies was published and later revised to a final set of 10,
- d) A separate Self-Assessment Method was prepared which provides a detailed framework for the evaluation process.

The initial and final lists of competencies defined are seen in the table below. The revisions were based on the network partners’ evaluation of the current situation in clusters and business networks.

*Table 2. List of competencies considered in the project*

Initial List	Revised List
1. Communications Skills	1. Business Systems Thinking
2. Computer Use Ability	2. Decision making
3. Ethics and Integrity	3. Innovation
4. Work Achievement	4. Performance Management
5. Confidence and Self-Discipline	5. Problem Resolution
6. Analytical Thinking	6. Project Management
7. Corporate Communication and Relationships	7. Strategic Planning
8. Business Systems Thinking	8. Teamwork
9. Decision Making	9. Employee & Stakeholder
10. Employee Development	Management
11. Innovation	10. Communications Skills

12. Performance Management	
13. Problem Resolution	
14. Project Management	
15. Resource Management	
16. Strategic Planning	
17. Teamwork	
18. Persuasion	
19. Client Service Orientation	

*Source: Own study*

The final 10 areas seemed to be most suitable for analysis in terms of the projects goals and further training.

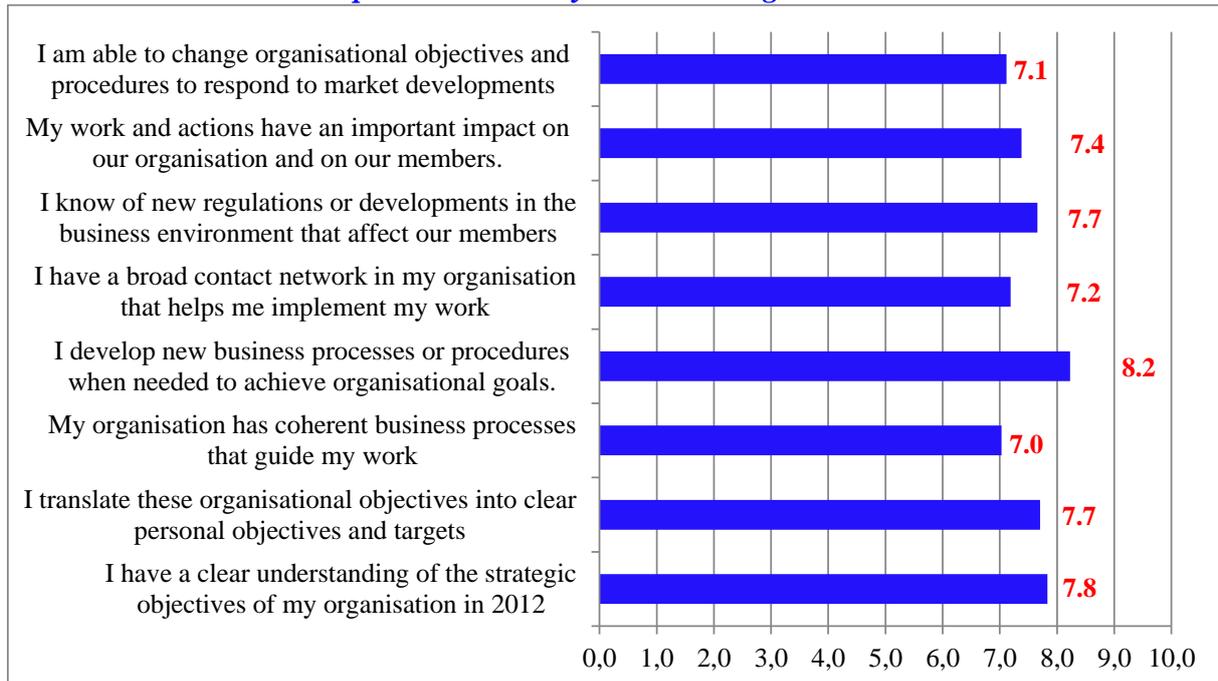
#### 4. The results

The survey was divided into ten parts following the ten topics considered most important for managerial performance. Below can be found an analysis of the answers gathered.

##### 4.1. Business system thinking

Business system thinking is crucial for achieving the sustainable development of an organisation. Cluster leaders have to change their methods and understand that they are working within a web of interdependent ecological and social systems. Asserting that the world, and consequently business systems, are complex means that it is impossible to understand them by considering their individual elements separately, and that there is no option for predicting the future, but only of grasping and proactively influencing future scenarios [Domininci 2012]. Business system thinking enables an understanding of organisational relationships, structure, climate, cultural issues and how one's role or position fits into an organisation. It also incorporates organisational strategies and goals into the development, implementation and performance of business objectives. Managers were asked how they proceeded with system thinking in their organisations. The answers are presented in Graph 1.

*Graph 1. Business System Thinking in clusters*



Source: Own study

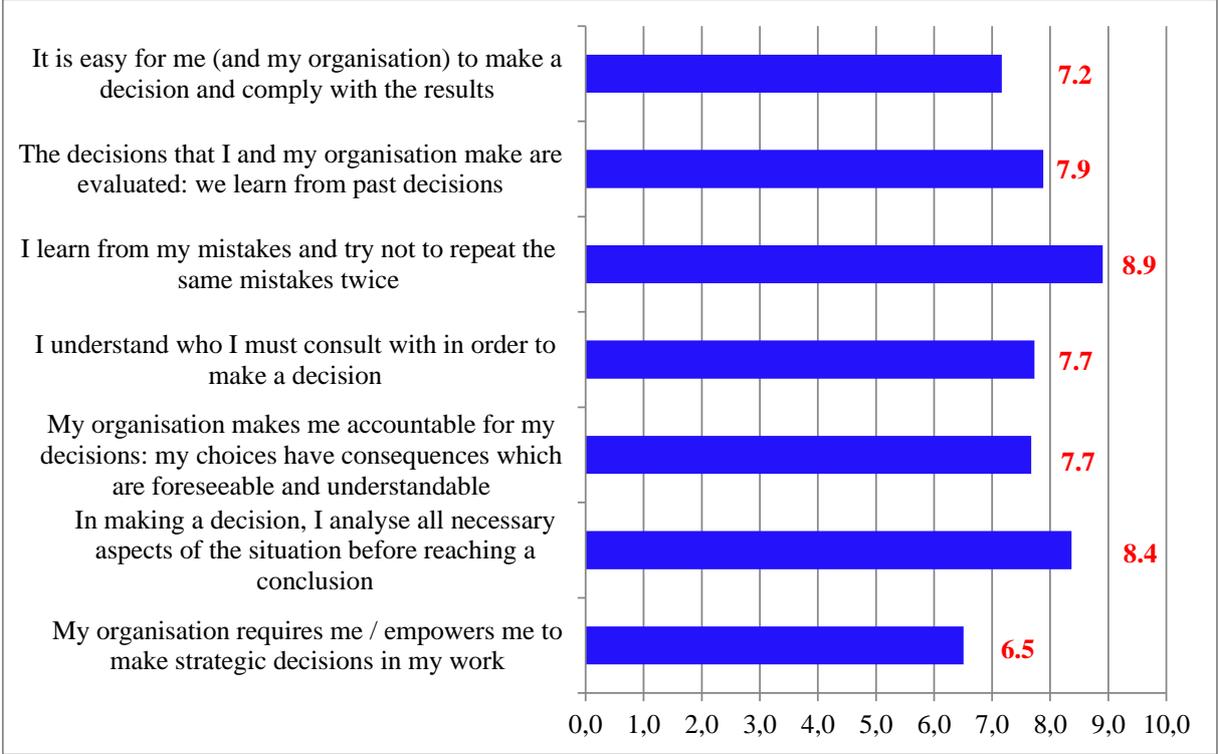
Managers did not value the building of strong contact networks which could enable them to implement changes very quickly. The organisations did not have coherent business processes either. Organizations are resistant to changes - having a supporting network could foster the transformation and implementation of innovation processes. Very strange was the fact that most of the respondents did not have a clear understanding of the strategic objectives of their organisation. One could expect much more from responsible managers. The Lithuanian answers were a little bit higher reaching an average of 7.7 compared with an average of 7.3 for Poland.

#### 4.2. Decision making

Decision making can be regarded as a kind of cognitive process resulting in the assessment and selection of which action should be taken among several alternative scenarios. It is a very important process for business leaders since it has an impact on the profitability and sustainability of businesses in a long run. Looking at Graph 2, where the average answers have been presented, one can see that managers are aware of the significance of the decision making process. However, they have problems with the legal status of their position in the

organisation. According to the data, organisations do not sufficiently empower managers to make strategic decisions.

*Graph 2. Decision making in clusters*



Source: Own study

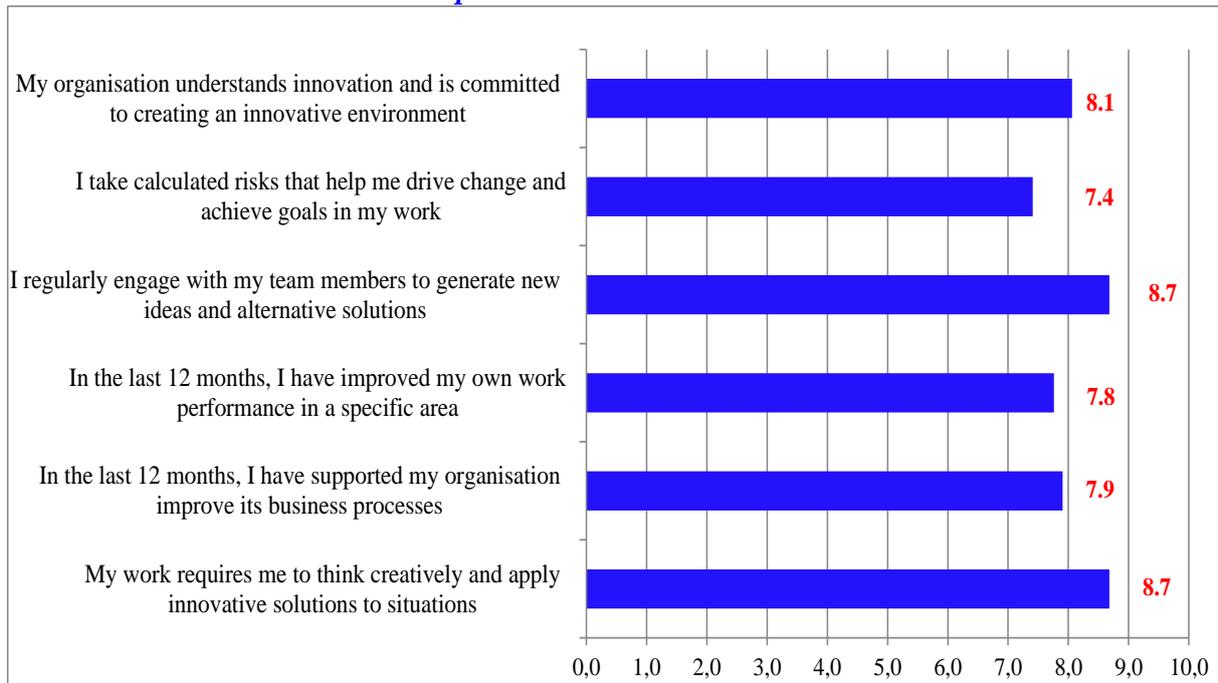
Lithuania had slightly higher average responses than Poland, 7.9 and 7.6 respectively.

4.3. Innovation

Europe has a real problem with innovation performance, which is of great concern since innovation tends to become the key driver of prosperity and growth as countries reach higher levels of income. While poorer countries can grow by investing in productive capacity and adopting technology developed elsewhere, richer countries need to move the productivity frontier and introduce new products, services, or ways to serve customers’ needs to sustain their prosperity. The traditional linear model of innovation with clearly assigned roles for basic research at universities, and applied research in company R&D centres, is no longer relevant. Innovation can benefit from geographic proximity which facilitates the flows of tacit knowledge and the unplanned interactions that are critical parts of the innovation process

[European Union 2013]. Cluster managers were asked how they dealt with the innovation process in their organisation. Their answers are presented in Graph 3.

*Graph 3. Innovation in clusters*



Source: Own study

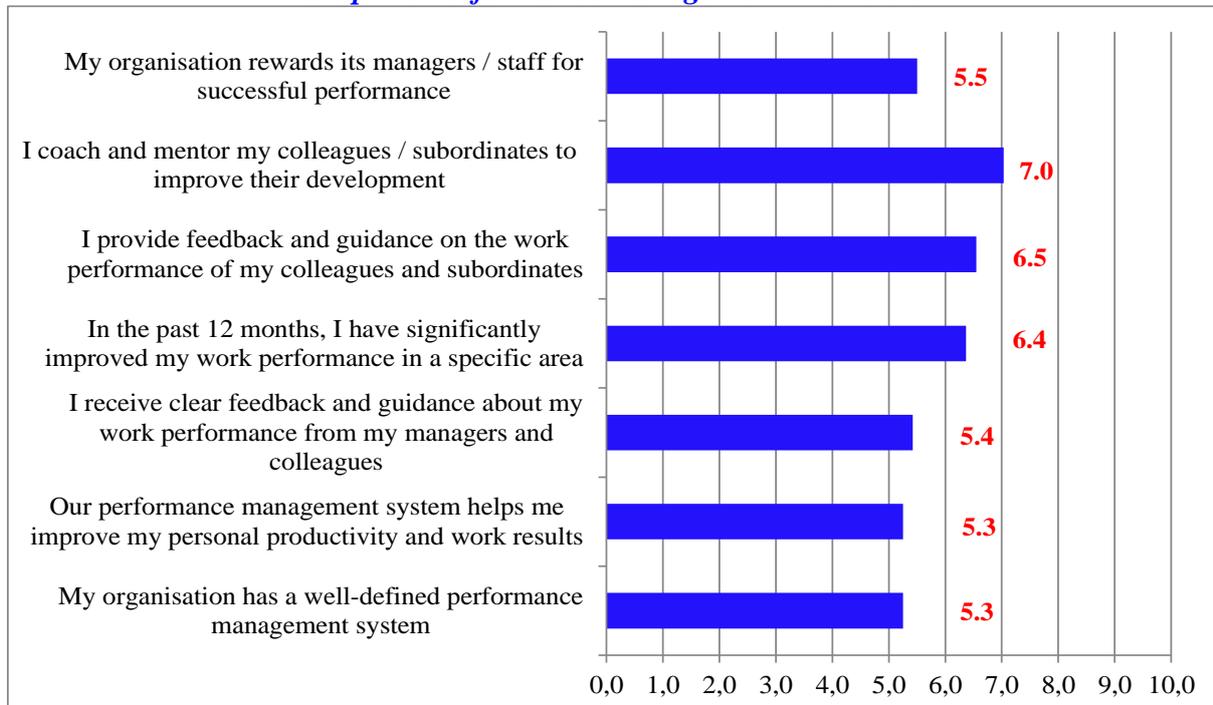
The answers seem to be rather high. Almost all the managers perceived their environment as innovative. However, when asked how many patents the cluster had registered in the last year, or what share of income was generated by innovative product or services that had been launched, researchers were not greeted with similar enthusiasm. Managers tend to strongly over appreciate the innovative capacity of their organisation, this being much higher in Lithuania than in Poland (8.5 versus 7.7.).

#### 4.4. Performance management

Performance management includes all kind of activities which ensure that goals are consistently being met in an effective and efficient manner. It can be also considered as a process by which organisations align their resources, systems and staff towards strategic objectives and priorities. There are many techniques and tools that can be used in such a system. However, as the data in Graph 4 shows, performance management systems are not a phenomenon widely used in the day-to-day activities of clusters. None of the clusters has a

system of performance management, and no system for monitoring and evaluating their performance either.

**Graph 4. Performance management in clusters**



Source: Own study

There are some very limited elements or tools used to measure performance, but they are still not embedded in any kind of system. None of the organisations have established a comprehensive or sophisticated system. One can summarise existing clusters as follows:

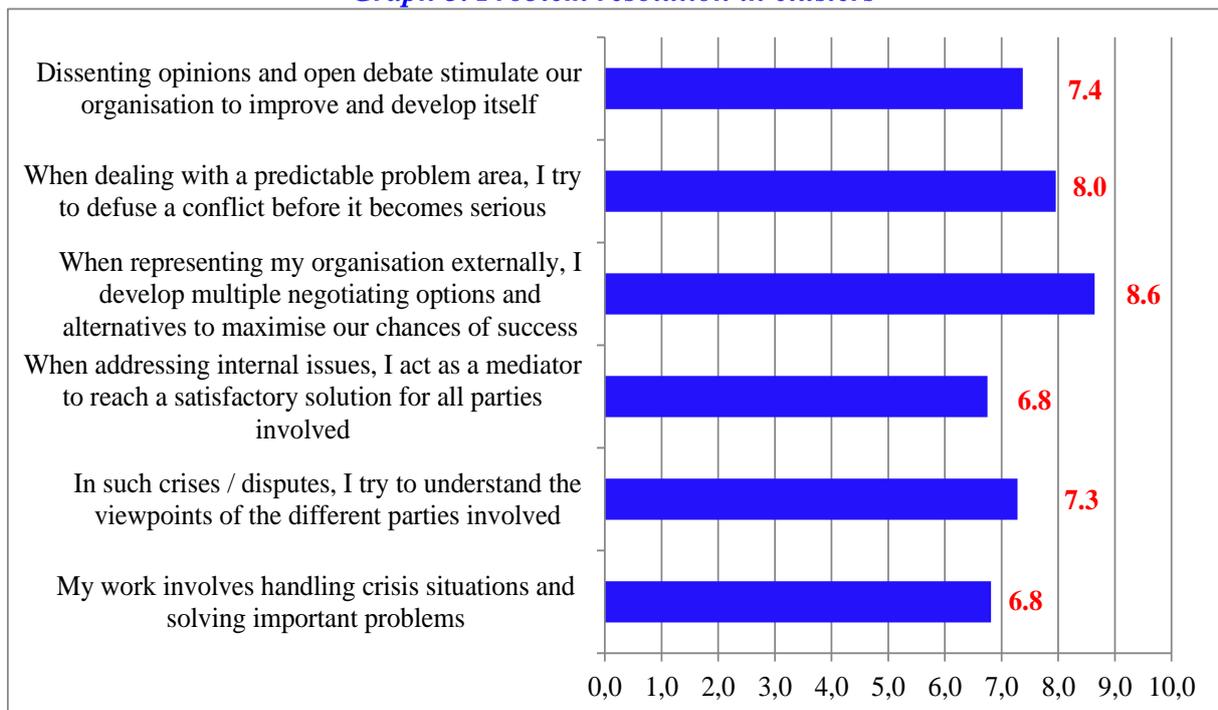
- a) The work is mostly planned and most of the basic expectations are stated,
- b) Work performance is not monitored by any sophisticated tools,
- c) Staff performance abilities tend to be self-determined and rarely enhanced,
- d) Performance is not rated,
- e) Top performance is not rewarded.

The answers for both counties were almost identical. This is an area where a lot of work has to be done. Managers ought to use various indicators to enable their work effectiveness to be measured. As a result of this conclusion one of the final results of the project is Personal Development Plans; meant to be based on Key Performance Indicators which are a good tool for measuring performance effectiveness. Managers need to measure their effectiveness, not only to know whether they are performing well or not, but also to be a benchmark for others.

#### 4.5. Problem resolution

This can achieve mutually acceptable solutions by identifying problems, addressing concerns, recommending multiple solutions, and resolving conflicts. Solving problems involves both analytical and creative skills. Which particular skills are needed will vary, depending on the problem. The ability to successfully resolve conflicts depends on the ability to manage stress quickly while remaining alert and calm, to control emotions and behaviours, to pay attention to the feelings being expressed, as well as to be aware of and respectful of differences. In a globalised world it is necessary to add foreign cultures as a vital factor influencing organisational conflicts. Managers were therefore asked for their skills regarding problem resolution. Their answers are presented in Graph 5.

*Graph 5. Problem resolution in clusters*



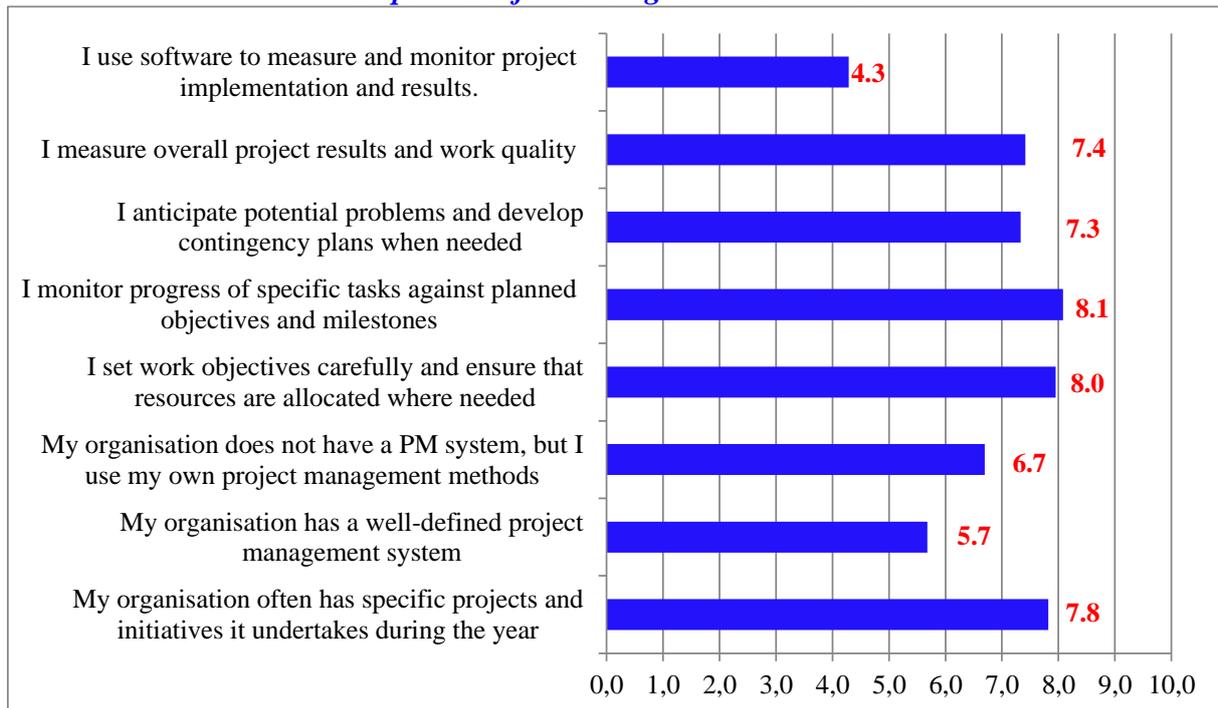
Source: Own study

Clusters in both countries have no serious conflicts (Lithuania had a higher average than Poland – 7.9 versus 7.0), but they do not use any sophisticated techniques either. It is based on the internal abilities of managers rather than learned skills or techniques. As long as an organisation is quite flexible and not formalised this is enough. However, along with ongoing developments managers have to acquire the skills required for problem resolution.

#### 4.6. Project management

Most contemporary organisations work through projects. Especially in Central and East European Countries, as there is a significant supply of structural funds, where clusters run many projects. Possessing project management skills is therefore indispensable for achieving success and becoming effective. Managers were asked about using methods and tools, as well as IT systems, in project management. Their answers are presented in Graph 6.

*Graph 6. Project management in clusters*



*Source: Own study*

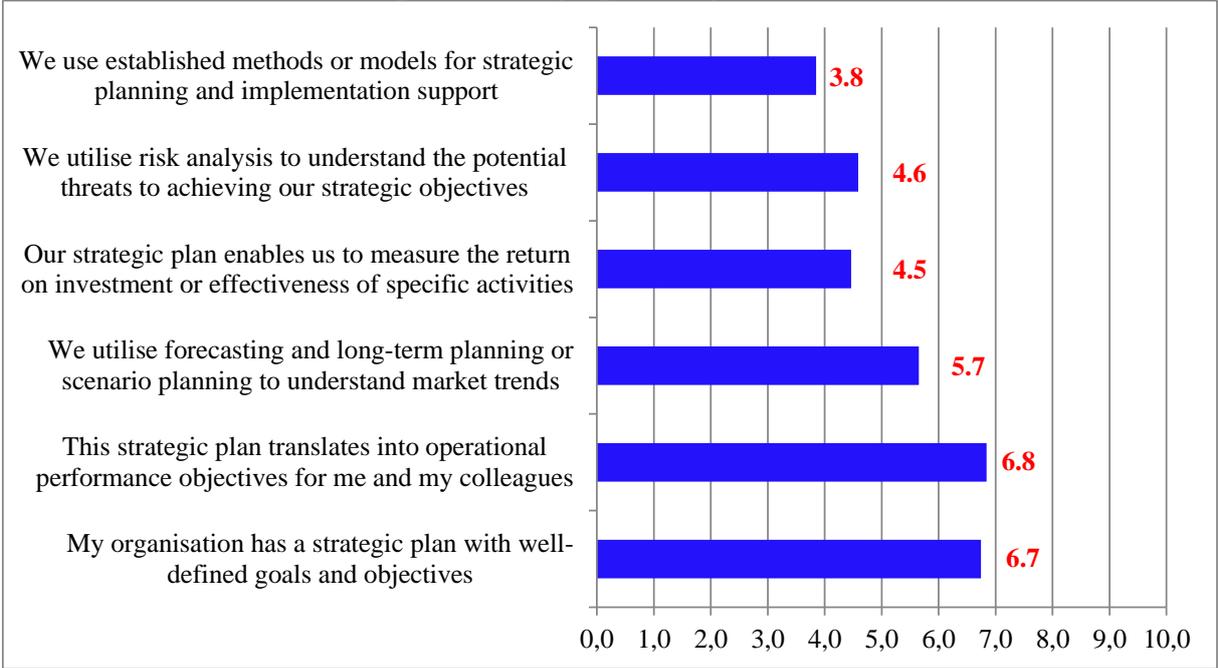
As can be seen from the graph, managers generally do not use any management techniques. No-one in the sample had a Professional Project Manager certificate from any PM association (e.g. PRINCE 2 or PMI). Also, none had any IT system for Project Portfolio Management either. In general, Lithuanian managers perceived themselves as better prepared for using PM techniques than their Polish counterparts (average answer 7.5 versus 6.3.).

#### 4.7. Strategic Planning

Strategic Planning is a comprehensive and sophisticated process for determining what a cluster should become and how it can best achieve this goal. This appraises the full potential

of a cluster and its members as well as explicitly linking the business's objectives to the actions and resources required to achieve them. Strategic Planning offers a systematic process to ask and answer the most critical questions confronting a management team – especially large, irrevocable resource commitment decisions. Managers were asked how they dealt with strategic plans as well as all the techniques and tools used for determining organisation goals in the long term. Their answers are presented in Graph 7.

*Graph 7: Strategic planning in clusters*



Source: Own study

Only a few clusters have an established system for strategic planning. Only a few more monitor risk and evaluate the process of achieving strategic goals. None of the organisations admit to having a strategic plan which is constantly evaluated and corrected. Very rare was the use of even basic tools to measure returns on investment or monitor activities. Most of the above strategic planning techniques were well known; however, not used in practice. Lithuanian managers again had higher self-assessment grades than Polish managers.

4.8. Teamwork

Teamwork enables the organisation to accomplish tasks quicker and more efficiently than tackling projects individually. Cooperating together on various tasks reduces the workload for all employees by enabling them to share responsibilities or ideas. It should also be mentioned

that teamwork reduces work pressure, which allows a worker to be more thorough in the completion of their assigned roles. Teamwork improves employee relations by enabling them to bond with each other, increases accountability, and also provides learning opportunities for all employees. Cluster managers were asked about the skills of encouraging team spirit and delivering teamwork opportunities. Their answers are presented in Graph 8.

*Graph 8. Teamwork in clusters*



Source: Own study

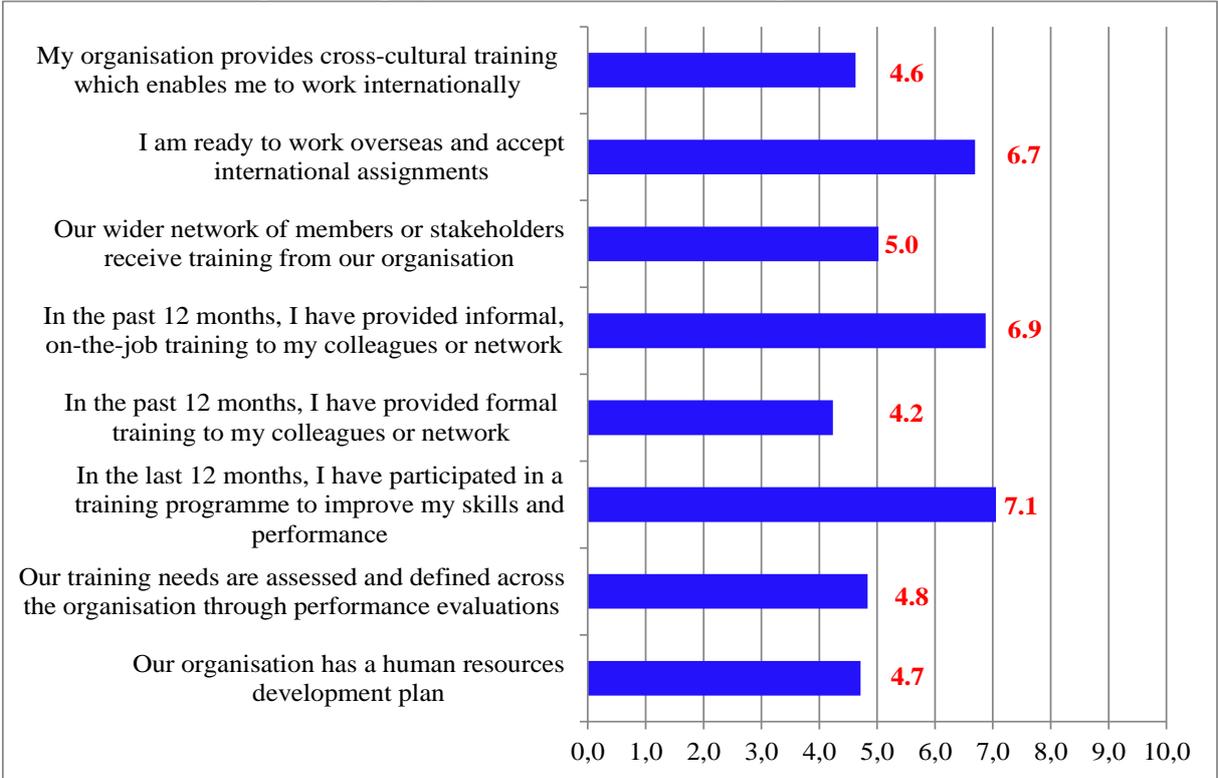
The topic regarding preparedness for working in international teams received the worst assessment in both countries. Almost all clusters have serious problems with internationalisation, and usually operate locally or regionally. At the same time, managers perceived their environment as friendly towards teamwork, although they complained that at the end of day they were responsible for completing assignments. The assessments of Lithuanian managers were higher than their Polish counterparts – 7.7 to 6.8 respectively.

4.9. Employee and Stakeholder Development

Employee development involves a combined and on-going focus by employers and their employees to ensure that their skills, abilities, and knowledge are constantly being upgraded. For this to be a success there has to be a balance between the organization's needs and the individual's career goals and aspirations. Most of the training, whether for employees or

stakeholders, comprises the following few forms: training programmes other than leadership, cross-functional training, leadership, and development planning. Managers were asked about the training programmes in their organisation. Their answers are presented in Graph 9.

*Graph 9. Employee and stakeholder development in clusters*



Source: Own study

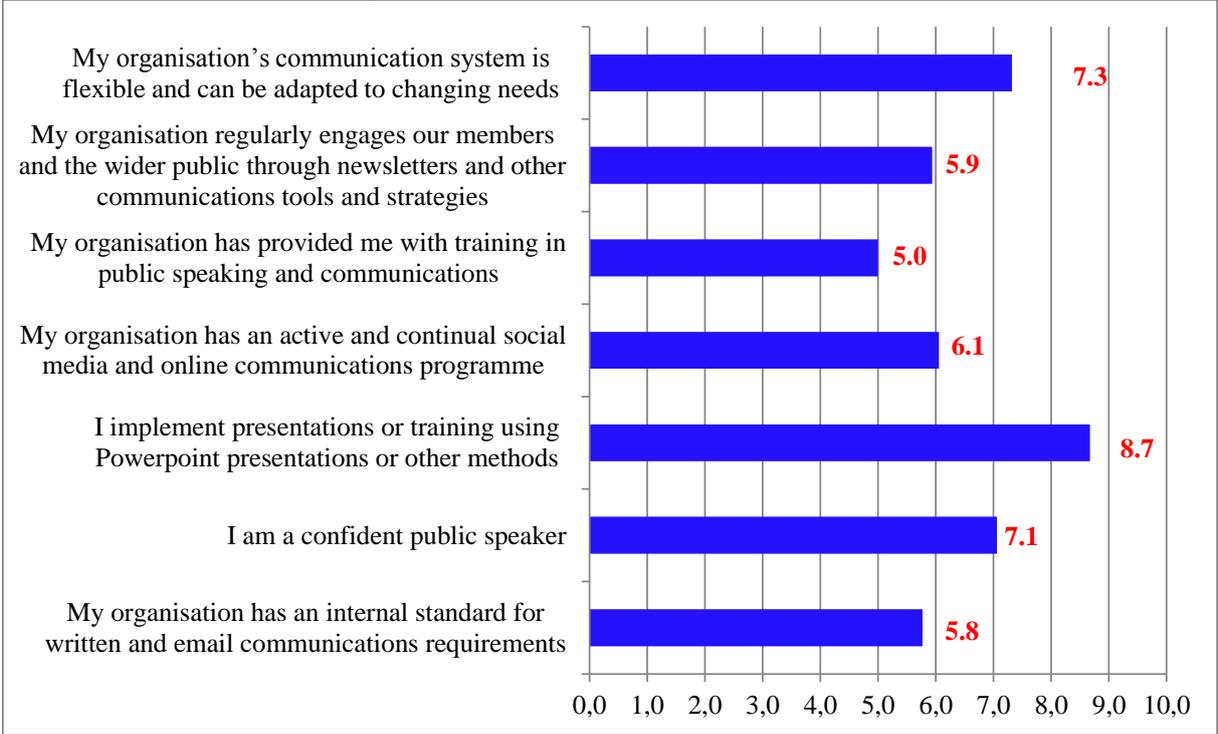
Most managers declared poor training systems in their clusters. There is a lack of funds to finance training programmes, as well as managers being too involved in day-to day activities to have any time for improving their skills. The engagement of stakeholders is also not sufficient – especially in those clusters where there are no membership fees. The manager is the only person responsible for establishing the training system for both themselves and other employees, as well as for stakeholders potentially interested in upgrading their skills. The average answers were almost identical in both countries, with a small plus to Lithuanian managers.

4.10. Communication skills

The roles played by managers in clusters usually involve complex relationships with people. Demands can be made that are sometimes conflicting and ambiguous. The practice of an

educator’s job can involve reconciling and managing these demands. Not surprisingly, interpersonal and communication skills often rank amongst the most critical for work related success and higher performance. According to research, a high level of individual success at work is characterised by ‘emotional intelligence’, or skills of social awareness and communication. Typically, these included the ability to motivate and influence others, to give honest feedback sensitively, to empathise and develop relationships, to monitor one’s own behaviour, to handle emotions both of oneself and others and to read interpersonal situations and organisational politics. However, it is important to note that emotional intelligence, or the skills of social awareness and communication, can be developed and honed [Dixon, O’Hara, 2002]. Consequently, managers were asked about the communication skills they possessed. Their answers are presented in Graph 10.

*Graph 10. Communication skills in clusters*



Source: Own study

For communication to be effective it needs to be embedded within a system using a few of those tools which tend to be most effective in particular circumstances. In most clusters the communications system is more an intuitive system rather than a formally planned one. There are no standard formulas for particular communication channels, and no feedback procedures or evaluation system. Managers are not systematically trained in communication skills and

most skills have been acquired by themselves. They are quite advanced when using IT techniques for communication, especially using office software, but not so fluent in using the English language when performing in public. Polish managers assessed their communication skills slightly higher than Lithuanian managers.

## 5. Response to training needs

There is no doubt that cluster managers require training in many areas. Their perception of the skills they possessed was usually much higher than their real skills. Within the LdV project, five practically-oriented action learning modules were developed to emphasise the most significant training needs. They were as follows:

- a) Strategy: methods of analysing the business environment and market, organising operations, planning annual activities, defining milestones and indicators, taking and monitoring decisions, and measuring results. The content was practically-oriented and not academic or theoretical in nature. It included a series of specific methods to be employed by each cluster,
- b) Finance: a methodology for planning the financial activities and operations of each cluster. This resulted in a break-even analysis, financial targets, and costing analyses for different services offered by each cluster. Once the analysis was completed, each cluster had to define the revenue targets needed to cover their planned fixed and variable costs based on strategic targets and operating needs,
- c) Marketing and Communications: this module focused on how each cluster can effectively market and communicate its activities within the country and abroad. The work focused on different active marketing and sales tools, identification of target groups, definition of sales planning activities such as the sales funnel or strategic integration, sales budgeting and ROI monitoring, and online marketing. Given that none of the clusters identified so far had an integrated e-marketing campaign, and that many lacked English language websites (or even national-language websites), a key focus was on e-marketing,
- d) Internationalisation: this module focussed on working effectively with international counterparts, both for cluster management groups as well as for clusters working on behalf of their portfolio companies. This included development of website content, mailing campaigns, proper presentation skills and documentation, as well as delivery

methods; e.g. preparing for trade fair participation, targeted marketing, negotiations, contracting and bidding,

- e) Member Services: this module reviewed various means of working more effectively with members, shareholders and stakeholders. It included decision-making, reporting, consensus-building, the development of new services (free and income-generating), joint promotional activities, target-setting, and work planning.

Each module was presented at a joint introductory session, followed by one-to-one coaching and development sessions given by Navigator Consulting Partners – a project partner.

The assessment of the training was very positive; however, training needs are much higher and require additional time to be spent.

## 6. Recommendations

Looking at the survey results, as well as the feedback after the training process, some recommendations for cluster managers can be formulated. These are as follows:

- a) *Managers have to continuously upgrade their skills and competencies*; the learning process is an on-going one which never ends,
- b) *Managers have to build awareness with respect to clustering and the advantages of cluster membership*; in most cases the companies gathered in clusters are not aware of all the benefits they can derive from clustering. In reality, cluster coordinators do not offer much added value in terms of membership services, which depreciates the value of the clustering idea itself; managers have to develop an array of services which attract new companies into the cluster,
- c) *Managers have to build mutual trust among cluster members*; companies in a cluster compete with each other and therefore trust is the most important feature of cooperation in terms of cluster existence; it takes years to build trust, while losing trust takes but a moment,
- d) *Managers have to activate cluster members*; the stakeholders in a cluster are generally not engaged in the cluster's activities since they do not see many benefits from such cooperation; the manager has to convince members that cooperation is beneficial, and encourage the undertaking of joint initiatives, because building strategic plans for a cluster requires the participation of all stakeholders otherwise it will become another redundant document on a shelf,

- e) *Managers have to plan strategic activities and optimise management processes;* the management process in a cluster has to be professional, planned and evaluated in an easy to measure way,
- f) *Managers have to seek alternative solutions to the public funding of clusters;* clusters in Poland and in Lithuania too often rely on public funding, so when the money dries up cluster activities end; such a policy for supporting clusters is beneficial on one hand and enables a cluster to survive in the early stages of existence, but at the same time it creates artificial clusters, too much addicted to public support; managers have to encourage stakeholders to co-finance the activities of the cluster, then they will also be much more engaged in the evaluation of cluster performance,
- g) *Managers have to work on improvements to innovativeness;* in order to build long term competitiveness, cluster have to be much more innovative; the innovativeness of a cluster depends first of all on the potential of the companies and R&D entities as well as their capacity to cooperate and develop new solutions; the managers task is to foster the innovativeness process, as well as involving partners in the innovativeness process and in maintaining an innovative environment,
- h) *Managers have to work on improving cooperation within the cluster's neighbourhood;* the final success of a cluster and its performance depends on the vital cooperation between companies, R&D institutions and public administration offices; the most important role of the cluster coordinator is to integrate all stakeholders and to build mutual trust, as well as initiate new projects initiatives,
- i) *Managers have to internationalise the activities of a cluster;* in our contemporary, globalised world even small companies have to internationalise, otherwise they will remain small local organisation and die in the first wave of any crisis.

This set of recommendations does not cover all aspects of coordination, but focuses on the most important tasks.

## 7. Conclusions

It is obvious, that clusters do have a positive impact on regional prosperity and well-being. The results of the survey as well as an analysis of the materials obtained from clusters indicate however, that clusters do not possess adequate resources for the fulfilment of their tasks. This relates mostly to financial and infrastructural resources, though also to human. The above leads one to the conclusion that adequate instruments need to be created to support human resource management, the financial standing of clusters and the infrastructure accessible to

their members. The differences between cluster resources in Poland and Lithuania are in some cases significant, with regard to the number of people employed, infrastructural capacity and available funds. Clusters coordinators undertake both large-scale activities, such as the development of joint products; and smaller-scale ones, e.g. the preparation of common advertisement brochures. Joint activities include mostly information, knowledge and experience exchange among cluster members; as well as marketing activities such as the preparation of common leaflets and web pages.

In the majority of cases, activities undertaken by clusters do not improve their innovativeness or competitive position. They allocate only a small proportion of funds to R&D. Neither do clusters undertake measures to provide legal protection for the innovations introduced therein. Surprisingly, cluster managers usually assess their competitive position more highly than they really should. The reason for such an attitude could be a lack of benchmarks, but sometimes simply arrogance as well as the necessity of showing the results to stakeholders. Another truth is that innovation is such an ambiguous notion, and has so many dimensions, that it is quite easy for an organisation to prove its innovativeness. However, clusters coordinators do use the potential of cooperation with foreign institutions or clusters to a small extent. They judge their own growth potential rather positively, but cannot evidence any wider international cooperation. In fact, in the area of internationalisation researchers noticed a larger gap compared to clusters in Western Europe. Polish and Lithuanian clusters do not have large financial resources. Only rarely do members pay fees, even when the amount is only symbolic. As members do not pay any fees, they usually do not engage in cluster activities to a sufficient extent. They do not have any interest in monitoring the process of spending public funds either. As cluster coordinators do not have any formal control over the members, they usually cannot do much to encourage members to be more involved. It sometimes happens that the coordinator is also the leader (not just a manager), but in most cases there is a lack of leadership in the organisation. The least positive aspect was the assessment regarding the influence of financial and organisational support from public authorities on the development potential of a cluster, and the opportunities for using external private financing. Investment attractiveness, the economic traditions of a region and cooperation with R&D units were included among the most important factors for cluster development. Only slightly more than 60% of clusters have formal development strategies. Many operate on the basis of an informal strategy. Some clusters do not have such a strategy at all [PARP 2010]. Not having a formal strategy that can be updated according to changing conditions is one of the main reasons for problems with performance management. None of the clusters had formal systems of

performance management; single, basic indicators were used instead. There is a lot of to do on the road to professionalism in cluster management. The development of strategic plans and personal development plans based on key performance indicators should be the first step towards such professionalism.

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