

Internationalisation of Cluster Organisations

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*Strategy, Policy and
Competitiveness*

By

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INTRODUCTION

The aim of this publication is to outline the possibilities, and benefits, of the internationalisation activities of cluster organisations in regard to boosting the competitiveness of their active members..

In the framework of this topic, valuable pieces of information - available from various international sources - were combined with the results of a wide range of studies, *and* with the experience gained from the research and the operation of cluster organisations in the Czech Republic. In this process, the state of the cluster organisations, and their internationalisation activities, were thoroughly mapped, and the impacts of these activities - on the competitiveness of the member entities, as well as other impacts in the form of amelioration of innovation environment - were included. Several detailed case studies, based on the successful examples of internationalisation activities, were processed. These results were compared with the results of several studies of different issues of cluster internationalisation carried out in other countries. The principles for an effective targeting of governmental support of internationalisation activities, and the means stimulating the cooperation between cluster organisations in the areas where the highest added value is to be assumed, were proposed.

The results from the research done in the Czech Republic were part of a research work requested by the Ministry of Industry and Trade within the project Cluster COOP, and were mainly in the field of the exploitation of the international cluster cooperation best practices.

The first chapter includes **a review of current knowledge** in the area of principles and development of the internationalisation of clusters, and cluster organisations.

The second chapter deals with **the research methodology**, describing in detail the methodology of its elaboration. This chapter may be considered as a sort of user manual and an interpretative dictionary of the section that explains the purpose of the study and the ways of executing the qualitative and quantitative analyses, which - in great detail - describes the methods of statistical data processing, as well as the substantiation of the comparative analysis and case studies of the examples of best practice.

The third chapter includes the **key analytical outputs**. In its introduction, a sample of clusters is scrutinised in a complex manner,

where - from the total number of registered clusters - the ones that work really well have been identified on the basis of a questionnaire. In the individual steps shown, the chapter offers a classification of clusters according to their dominant activity; the degree of specialisation; and the stage of their life cycle, regional segmentation, or the size of a membership pool. The next passage of the third chapter, evaluates in detail the internationalisation activities of the clusters from the perspective of incentives, and in relation to a range of relevant variables. As a key incentive to internationalise, the clusters themselves have identified the exchange of information and experience at the international level. The next part contains a thorough analysis of the internationalisation activities from the perspective of their importance within the cluster activities, and explores the closer and more detailed characteristics of their implementation. The following sections then focus on the qualitative analysis of the observed insights; the impact of internationalisation activities on the environment of clusters; and in its conclusion then, a comparison of the environment of the Czech Republic with respected studies from abroad, which indicate that - in a number of factors - results are similar, or identical.

The fourth chapter proposes a **synthesis of conclusions** of the gathered information, which the study made in the framework of analysis, of the impacts with the highest added value; identification of activities where the state administration might be, from the perspective of clusters; an accelerating and supporting entity even in the context of national and European strategies; and concepts of support regarding competitiveness and the innovation environment. The conclusions then reflect the life cycle of the cluster, and other internal and external factors.

The final, and fifth chapter, provides **examples of the best practices** by means of a detailed analysis of four selected cluster organisations, with the presentation of other noteworthy practices from other domestic and foreign clusters, including examples of the best practices among the cluster policies from abroad.

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CHAPTER ONE

PRINCIPLES AND DEVELOPMENT OF THE INTERNATIONALISATION OF CLUSTER ORGANISATIONS

Rapid global innovation and technological development, over the last few decades, have influenced the organisation and strategy of businesses. New types of “relationships” have emerged, such as the collaboration within networks and clusters, which are considered in the literature as “catalysts for accelerating industrial transformation and for developing new regional competitive advantages, speeding up firm and job creation and thereby contributing to growth and prosperity” (Ketels 2012: 4).

However, before presenting the concept of clusters, it is necessary to go back in time to its roots when Alfred Marshall (1890/1920) introduced his concept of *industry districts*, at the end of the 19th century. He characterised the industry districts as a concentration of specialised industries in particular locations, where the presence of entities with a complementary profile translates into the benefits from the externalities. He pointed out the agglomeration benefits, such as a labour market sharing, diffusion of technologies from nearby businesses, and the joint usage of specialised infrastructure and suppliers. Since then, further approaches have been developed. The relationship between the industry concentration and economic performance was a research subject of, for example, Weber (1909/1929) who in his *theory of industrial location* analysed and classified factors determining the location of industry. He distinguished regional factors and agglomerative, and deglomerative, factors influencing the redistribution of industry and focused on the optimal localisation of businesses. Further analysis, and some illuminating details on *location theory*, are presented by Hoover (1937), who emphasised the causes and processes of locational change, along with difficulties connected with economies of concentration. He also pointed out two agglomeration advantages, which he divided into two groups, i.e. localisation benefits (obtained, thanks to the proximity of companies from the same industry), and urbanisation benefits (obtained, thanks to the

proximity of companies from various industries). Localisation benefits were connected with cost savings, whereas urbanisation benefits were linked to the joined use of institutions and public resources, including infrastructure and labour markets. Schumpeter (1939 and 1942), on the other hand, focused on individual (pioneering) entrepreneurs as being the prime force of economic development, whilst analysing the business cycle. He further drew attention to the *clustering of basic innovations* and its relation to a long-term economic development. An important input within the location and regional development theories constituted Perroux's theory of *growth poles* (1950 and 1955). He depicted the growth pole as a firm, an industry - or their group - and pointed to their characteristics, such as a large size, a high degree of interaction and dominance, and a high level of innovation. Preoccupied with profit maximisation and cost minimisation, location theories were enriched by Pred (1969 and 1977), who - in addition to localisation and urbanisation benefits - highlighted the significance of non-economic forces for location dynamics. He discussed the behavioural matrix, and emphasised the importance of personal contacts in the transfer of information and the dissemination of innovation, and thus on a regional economic development. Also, other approaches, such as e.g. Becattini's (1979 and 1990) "feeling of belonging" of district communities (the importance of social relationships in industrial districts), Storper's (1995) understanding of the region as a locus of untraded interdependencies (e.g. informal relationships of companies), or a *theory of path dependence* of corporate structure by Bebbchuk and Roe (1999), further enriched the localisation issues that are interlinked with the development of the *cluster concept*.

The concept of clusters, and cluster organisations

Over the centuries, and specifically during the last few decades, there has been observed a shift from traditional heavy industry sectors (manufacturing) to high-tech industry branches (e.g. IT/ICT, automation, biotechnology, life sciences), also to creative/cultural industries (e.g. media, design, art, architecture), and services (e.g. tourism, transport, education), and also towards the knowledge-based economy.

The importance of, not only economic but also non-economic, forces on the localisation of entities has been highlighted.

The fact that economic activity tends to agglomerate, and that particular business environments are able to stand out and be more competitive than others, was contemplated by Professor Michael Porter. He identified four core 'drivers' of competitive advantage, which he

devised in a *diamond model*, and pointed towards *clusters* as the centre of competitiveness at particular localities (Porter 1990). Porter (1990: 213) rejuvenated the Marshallian concept of industry districts and introduced the definition, which then became a turning point in understanding, of the concept of a cluster depicted as a:

Geographical concentration of interrelated companies, specialised suppliers, service providers, businesses operating in similar sectors as well as related institutions (like universities, normalization organisations and institutes as well as branch associations). In certain fields, these organisations collaborate and compete.

This definition was further extended by Porter (1998: 78) into:

The geographic concentrations of interconnected companies and institutions in a particular field. clusters encompass an array of linked industries and other entities important to competition. They include, for example suppliers of specialised inputs such as components, machinery, and services, and providers of specialised infrastructure. Clusters also often extend downstream to channels and customers and laterally to manufacturers of industries related by skills, technologies, or common inputs. Finally, many clusters include governmental and other institutions—such as universities, standards-setting agencies, think tanks, vocational training providers, and trade associations—that provide specialised training, education, information, research, and technical support.

As the concept was popularised, the definition of a cluster was enlarged and expanded upon by various researchers, depending on their perspective (e.g. Rosenfeld 1997, OECD 1999, Enright 2003, Sölvell et. al. 2003). Most of them, however, point out the presence of certain characteristics where, amongst others, geographical proximity of actors (companies and others) and their multidimensional connections - demonstrated in simultaneous cooperation and competition - are distinguished.

The importance of a cluster concept was also noticed by world organisations e.g. the Organisation for Economic Co-operation and Development (OECD); the United Nations Industrial Development Organisation (UNIDO); the World Bank; and the European Union (EU). Therefore, the European Commission,¹ on the basis of aforementioned definitions, distinguished several characteristics of cluster actors. The cluster concept points to simultaneous cooperation and competition of

¹ European Commission. 2005, Final report of the Expert Group on Enterprise Clusters and Networks. European Commission, Belgium.

cluster actors called co-opetition, and their geographical proximity. Furthermore, it highlights the fact that clusters characterise by specialisation in a particular field; they may be science-based or traditional, institutionalised or not.

In addition, further cluster characteristics deserve attention, such as the horizontal and vertical interlinks of actors² who represent different spheres of a Triple Helix (Etzkowitz 2002) and provide unique knowledge and skills (Kačirková 2008); who characterise the presence of same development trajectory (Szymoniuk 2005), and who are linked by common goals, vision, and technology, etc. (Porter 2000).

Often confused with the definition of a cluster is “a cluster initiative” (CI). It, as presented by Sölvell et al. (2003: 9), can be defined as “organised efforts to enhance the competitiveness of a cluster, involving private industry, public authorities, and/or academic institutions”. According to Ketels et al. (2007), cluster initiatives often emerge from projects and, providing there is a platform for cooperation, are converted into formal structures after 12 to 36 months.

Further definition specifies “a cluster organisation” (CO), which can be defined as a specific legal body established with the purpose to facilitate and manage the cluster development,³ and which functions as “a mediator between various cluster members and adds value by stimulating collaboration both within the cluster and between the cluster and the outside world” (Schretlen et al. 2011: 6). In addition, Ketels states that, as cluster organisations are a specific type of network, in order to capture their essence it is necessary to consider their geography, industry/sector, nature of the relationship and objective. He highlights the fact that they “are focused on a specific geography, oriented towards a set of related industries (also called a cluster category), and they provide a structure for actual collaboration” (Ketels 2012: 20).

For the purpose of this publication, we use the term *cluster*, understood as a cluster organisation, including organised structures showing the characteristics of a cluster initiative.

Numerous typologies of clusters are presented in the literature. Their summary, on the basis of several researches and criterions, is depicted by Bialic-Davendra et al. (2014: 17).

One of the main cluster characteristics is an implementation of

² “A Practical Guide to Cluster Development. A Report to the Department of Trade and Industry and the English RDAs by Ecotec Research & Consulting”, England’s Regional Development Agencies, 2004, accessed May 20, 2014, <http://www.dti.gov.uk/files/file14008.pdf>.

³ Ibid.

common projects and activities in different areas by cluster members. Although joint activities may vary across clusters depending on their main industry focus, their implementation fosters “bonds creation” and trust building among cluster actors, which may result further in generating economic benefits.

According to different literature sources (for example Sölvell et al. 2003, Pavelková et al. 2009, Bialic-Davendra et al. 2014.), common cluster activities may be grouped into the following:

1. Networking;
2. Human resources;
3. Research and innovation;
4. Business co-operation, marketing and promotion;
5. Financing investment plans;
6. Governmental/political area (lobbying);
7. Supporting activities.

As clusters, from their principle, are based on simultaneous cooperation and the competition of their actors, it is crucial to develop relationships among cluster members from the very beginning. Thus, clusters typically focus their first activities on networking. These activities help cluster members to get to know one another, to favour trust building, and to gain the confidence necessary for the undertaking of more strategic activities. Networking activities constitute a starting point for every cluster organisation. Development and implementation of low-risk activities, which provide quick results, play a simulative role for further cluster development where focus is shifted into more complex, long-term and capital intensive activities, such as joint research, development and innovation (R&D&I), or business cooperation.

Networking activities focus on the gathering, and sharing, of information, knowledge and experience (e.g. good practices) held within the cluster, thus building trust among its members. These types of activities take place within formal and informal meetings, e.g. meetings of cluster members' representatives (general assemblies, team building activities), mini-conferences, workshops, seminars, training and tailor-made courses for cluster members, not to mention other networking events, etc. A helpful tool for the development of cluster members networking activities constitutes information platforms, such as cluster websites, forums, blogs, newsletters or magazines, and social media platforms of communication, etc. Thanks to these avenues of communication, cluster members can find necessary information, share their ideas and easily communicate with

other members. Regarding networking activities, contact with other actors, outside the cluster, has to be taken into consideration, e.g. with suppliers, customers, and funds providers, etc.

Human resources activities are based on the similar principle of the exchange of knowledge and experience shared within networking activities. However, they cover activities oriented on increasing the qualification of cluster members, thanks to the organisation of joint conferences, workshops and seminars, the training of employees, and cooperation with educational institutions, etc. These activities favour extending the network of contacts and broadening knowledge horizons.

Activities oriented on research and innovations, aim towards technological development; improvement in production processes and the provision of services, and the implementation of new innovative solutions, etc. They cover joint research and development (R&D) projects; cooperation with research centres and other research institutions; the innovation of products and processes; support of spin-offs and incubator services; and the establishment of specialised professional training centres, for the educational improvement of a cluster and its member companies, etc. Joint R&D activities lead to the faster technological development of a cluster organisation, and its members, and thus increases the attractiveness of the products and/or services they offer.

Business cooperation and promotional activities are inseparably connected with the aforementioned types of activities. Business involvement includes joint purchasing, production sharing, shared securing, and the realisation of orders, logistics and management, etc., whereas promotional involvement covers activities connected with marketing research, analysis of new trends and markets, catalogue of products and services, the logo, brand name, joint advertisement, and the participation in trade fairs and missions, etc. Thanks to joint business activities, cluster members achieve a stronger negotiation position in the market and are able to provide full-scale products, and/or services, and are therefore able to deal with more extensive orders. In addition, joint promotion leads to strengthening the image of a cluster organisation and particular cluster members, and increased attractiveness of cluster members' products.

Financing investment plans cover activities focused on obtaining financial resources; joint investments in the infrastructure; and mediacy in obtaining support services (e.g. bank services, insurance, legal, accounting and tax consultancy, etc.). Thanks to joint activities in this area, cluster members gain a stronger negotiation position in obtaining external financial support. In addition, joint investments in infrastructure bring

economic benefits.

Influential activities include lobbying in favour of the infrastructure; for more favourable legal regulations; or for subsidies. Thanks to joint lobbying, a cluster and its members have a stronger voice when in communication with authorities. Typical examples constitute the cluster's voice in shaping a regional development strategy.

Support activities focus on helping within the preparation and management of projects, benchmarking, and other support services. External help in a projects preparation, especially in administratively difficult European Union projects, is highly appreciated by cluster organisations. Benchmarking, on the other hand, allows clusters to make comparisons among one another, and thus stimulates the improvement of their activities.

Joint cluster activities should be carried out in accordance with a cluster's strategy and objectives. Implemented with different intensity and importance, during the cluster's development, they can be executed by the selected group - or majority of cluster's actors - in a short or long-term perspective. These activities, initially implemented "internally" within a cluster organisation and a region/nation in a which cluster operates, may be extended further and internationalised.

Internationalisation of cluster organisations

Growing competitiveness, and economic development, requires businesses to open up to internationalisation in order to expand their activities abroad. Businesses are more and more aware of the limitations of national markets and thus are more often found to be searching for new distribution channels, suppliers, and consumers, abroad.

Internationalisation, as defined by Welch and Luostarinen (1988), is a process through which a company increases its level of participation, and activity, in foreign markets over time. It encompasses a wide range of aspects and decisions, which have to be undertaken, such as "how" (method), "what" (objects), "where" (to whom), as well as concerning the organisational and personnel capacity and finance (Welch and Luostarinen 1988). As it is a dynamic phenomenon, Zahra and George (2002) point out further factors, such as the extent of internationalisation regarding the degree of commitment to foreign expansion; the breadth, or scope, of the range of locations where the business is developed; and the speed of the change required, and its intensity - analysed in detail also by Casillas and Acedo 2013 - which has to be taken into consideration.

Also, Ernst and Kim (2002) aptly notice that, as the complexity of competition in the global market is continuously growing, no company, indeed no market leader, is able to generate internally all the specialised capabilities necessary to maintain or reach a competitive advantage above others. That is why stimuli appear in order to search for these capabilities outside the company, and incentives for the development of the internationalisation process come into the fore.

As companies typically constitute the core of the cluster, their need for the development of an international cooperation is naturally reflected in the whole cluster organisation. As time goes by, more and more clusters perceive the advantages of internationalisation and the new possibilities arising from it. Therefore, they are willing to develop inter-cluster cooperation on an international scale. However, the question arises; regarding 'what' is the rationale of linking clusters internationally, and what are those advantages?

Skalman and Zingmark (2010: 14) point out that the key lies in the development of globalisation processes, which influence clusters that "need to act locally whilst still having solid links with clusters and markets elsewhere" in order to maintain, or reach, their competitive advantage above others. The motto of acting locally, thinking in a European way, and going global, appears as vital.

With a rapid technological development and extensive globalisation processes, the importance of the geographical proximity of companies becomes less crucial and a development of cooperation links goes beyond that factor. Clusters, and companies, more willingly open up to international cooperation, which becomes more feasible on a global scale and attractive for their business (Szanyi et al. 2007). Nevertheless, before going international, and developing strategic alliances, it is necessary to strengthen the value of the domestic actors (Schwaag Serger and Wise 2010).

Before international development, it is crucial to consider individual (i.e. a cluster organisation and its members) reasons for internationalisation; what are the conditions that have to be taken into consideration, and what are the tools needed. Once taken into consideration, these conditions allow the transformation of ideas for internationalisation and action plans begin to form into concrete internationalisation activities. While implementing internationalisation activities, barriers hampering internationalisation processes may appear, (please see section "Barriers of internationalisation of a cluster organisation"). These being conquered, result in internationalisation benefits. A cluster internationalisation outline is depicted in Figure 1.

The **reasons for undertaking internationalisation** efforts may vary among entities. Meier zu Köcker and Buhl (2007) indicate several reasons for the internationalisation of networks/clusters. Among them, they distinguish the exchange of information and experience; access to the know-how of technologies outside the network (establishing new networks in special technology; comparing with the best in technology); and easier access to targeted markets. They also highlight the desire to improve a cluster's international visibility and competitiveness, and thus strengthen its worldwide market position and increase its attractiveness for external partners.

Furthermore, Pattinson (2013) underlines that internationalisation is done in order to gain access to new products and services, key infrastructure, new partners for collaboration, as well as in order to raise a cluster's profile and attract Foreign Direct Investments (FDIs).

Ffowcs-Williams (2013), on the contrary, draws attention to the importance of attracting talent and initiating further domestic investments, thanks to the involvement of global customers, the increase of both exports and imports, as well as the empowerment of small and medium enterprise (SME).

In addition, the Cluster Management Booklet⁴, as a cluster's motivation for going international, distinguishes access to niche markets and addresses technology partners of strategic importance. Besides, it aptly notes that the "local markets are simply too small for highly specialised companies and the raw materials are either not available or, by far, too expensive". Therefore, companies - in order to become competitive or maintain their competitive advantage - have to go beyond their local markets.

Moreover, nowadays the focus of policy makers and entrepreneurs has been diverted from the development of "any cluster" into the creation of clusters, which are efficient. One of the ways of achieving this goal is the presence of continuous learning and improvement processes in the cluster. This can be obtained thanks to the broadening of horizons that come about by entering into new markets, developing cooperation linkages through inter-clustering, learning from others' best practices and experience, and implementing them into ones' reality.

⁴ "Cluster Management Booklet 2. Industrial cluster excellence. Whitepaper on preconditions, policies and best practices", Alplastics, n.a., p.44. Accessed July 20, 2014, http://www.clusterland.at/files/VOL_2.pdf.

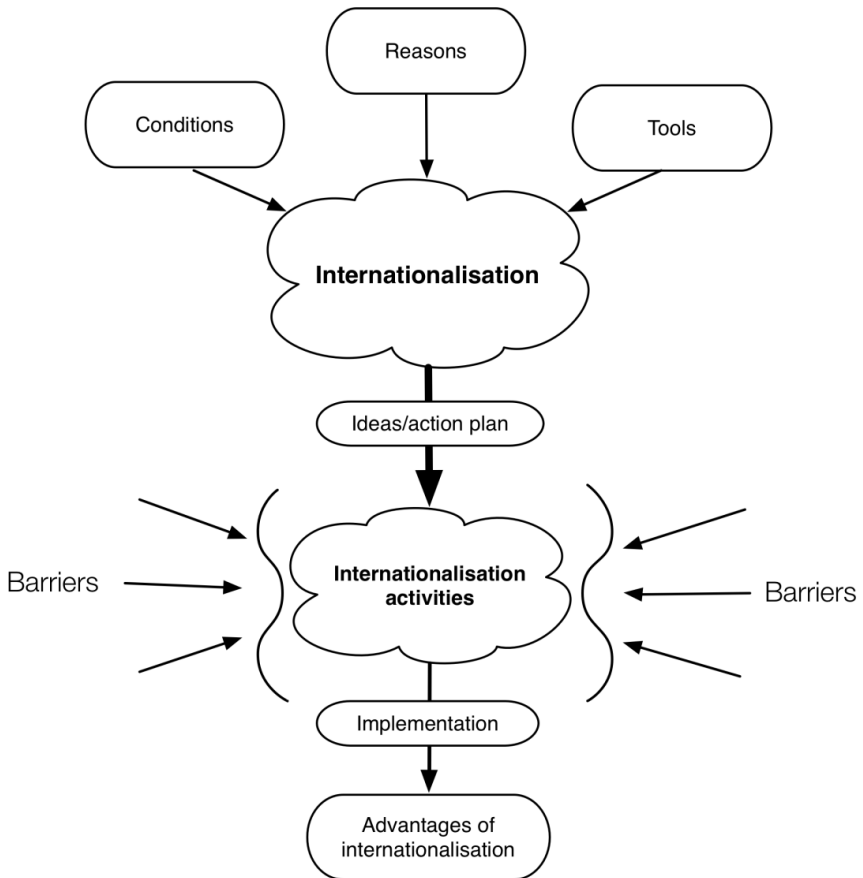


Fig. 1 A cluster internationalisation outline

Source: Own development

As aptly stated, by Ffowcs-Williams (2013), building cluster-to-cluster links facilitates the development of business-to-business and academic-to-academic relationships, which in turn stimulates a connection into world-leading knowledge and experience, which leads to further development.

Also, cluster internationalisation is crucial for linking regional strategies for smart specialisation in complementary regions. International networking - and the building of partnerships between cluster organisations - is vital for the development and implementation of new activities, the improvement of a cluster's international visibility, and the

effective delivery of international activities (Pattinson 2013).

Furthermore, as highlighted by the European Commission⁵ within its Cohesion Policy 2014-2020, it is crucial for regions to improve their internal and external connections, prioritise complementarities, and combine their strengths. In order to do this, regions “need to be outward looking, to position themselves in European and global value chains, and to improve their connections and cooperation with other regions, clusters, and innovation players. This is important for the internationalisation of their companies, to achieve a critical potential of cluster activities and to generate inflows of knowledge relevant to the region’s existing knowledge base”. Cross-clustering, therefore, is being distinguished as one of the tools that promote knowledge spillovers and technological diversification, thus helping to improve a region’s competitive advantage.

The importance of inter-clustering and internationalisation, in reaching a strong competitive edge by European businesses, is being highlighted by the policy makers in the European Parliament, and European Commission. They further underline the necessity of linking companies, educational and research institutions between regions, and building collaboration, in order to avoid the duplication of resources and to gain from the economies of scale. They also point out the existence of different policies in Member States, which may limit the spontaneous cooperation, and play-hampering role, in the development of collaboration linkages among clusters⁶. Therefore, it is crucial that programme owners, in one country, collaborate with programme owners from other countries. Also, an implementation of corresponding and need-based supporting instruments plays a vital role in stimulating internationalisation activities.

In order to be **successful** in internationalisation, several **conditions** have to be taken into consideration. Although, the development of internationalisation may stimulate the strengthening of national links and national collaboration among clusters, the implementation of internationalisation activities is often connected with facing cultural

⁵ European Commission. 2014, National/Regional Innovation Strategies for Smart Specialisation (RIS3). Cohesion Policy 2014-2020. The new rules and legislation governing the next round of EU Cohesion Policy investment for 2014-2020 have been formally endorsed by the Council of the European Union in December 2013, p.4. Accessed August 12, 2014, http://ec.europa.eu/regional_policy/sources/docgener/informat/2014/smart_specialisation_en.pdf.

⁶ BusinessEurope. 2009, “Unite and Innovate! European Clusters for Recovery”. Accessed August 22, 2014, <http://www.besinesseurope.eu/content/default.asp?PageID=568&DocID=24571>.

differences. These differences often create a challenge when the two nations are working together, however, they also stimulate learning processes and may bring an inspiration, and a new perspective, on particular solutions implemented within a particular industry in one country. In addition, cultural differences may help in identifying gaps, favour finding interesting research ideas, or revel in different approaches to implemented solutions. Therefore, it is important to understand and respect the business climate of a cluster's own country.

Skalman and Zingmark (2010) underline several **aspects conditioning the success of a cluster cooperation**. First of all, it is only this type of cooperation that makes sense, and is of interest to participating sides; when all partners contribute their ideas, thereby bringing more efficient use of present resources and creating added value for its actors. In addition, the participants should share common vision and goals (both short and long-term); clear rules have to be set, and a time perspective of cooperation has to be taken into consideration. Furthermore, it is important to involve different stakeholders - not only companies, but also actors - representing other spheres of a cluster structure, including educational and research institutions, and the public sector. Besides, the development of international cooperation should be driven by demand, and clusters should be able to choose their own partners for collaboration. However, governments may play the role of a catalyst and assist in cluster matchmaking.

Pattinson (2013) seems to share the same views as Skalman and Zingmark (2010), as he distinguishes five key success factors for transnational cluster development, such as: partners sharing similar strategic objectives; sustainable business models, and the creation of value added collaborative projects and services for members; international visibility; and dynamic membership. In addition, he adds the importance of the creation of synergies with neighbouring regions, and avoiding duplication.

Also, Greenhalgh (2012: 30) aptly states, "a high level of self-awareness is needed by the cluster organisation in order to identify potential partners with the right blend of shared values and complimentary competencies". The selection of partners is crucial. Therefore, the cluster should focus on searching for potential partners, which are complementary, have a similar organisational structure, and where the mutual benefit principle is present. Another key issue is the necessity of mutual respect and trust of the collaborating partners, as people are the ones who make the partnership work. Making sure that there is no conflict of interest, and that no effects of cannibalisation between the partnering sides are vital.

Skalman and Zingmark (2010: 37) also notice that “transnational cluster links are very much about people and about building social capital”. In some cases, participating cluster managers can quickly find an agreement on undertaken activities, whereas in others, it can be a longer process (e.g. a year). Therefore, short projects are important for the development of inter-cluster collaboration. On the principles of “quick wins” and “low hanging fruits”, these projects facilitate trust building, and the strengthening of contacts between clusters. Short-term results also help to define long-term objectives and sustain the collaborative linkages.

While implementing internationalisation activities, one has to take into consideration **tools** that are needed. According to Meier zu Köcker and Buhl (2007: 7), participation in networks appears as an **instrument of internationalisation**, where:

International co-operations between companies can be encouraged if the involved companies are part of a network and the networks’ managers take active steps to support their members in the context of a more internationally orientated perspective.

Besides, they underline the fact that “companies in networks and clusters find it easier to engage in international cooperation” (Meier zu Köcker et al. 2011: 7). Zucchella, Palamara, and Denicolai (2007), have also noticed that belonging to a local cluster increases the chances of cluster members internationalising early. This is because being a member of a network/cluster brings entrepreneurs the advantage of the easier identification of international opportunities, helps with establishing credibility, and leads to the development of strategic alliances (Oviatt and McDougall 2005). Apart from the affiliation to cluster itself, other tools are also necessary. Pattinson (2013) highlights the need to provide evidence on internationalisation benefits; a wide spectrum of current information (about markets, projects, potential partners, etc.); training materials; opportunity for arranging personal meetings; tools, which can be used for assessing readiness; access to finance; and other elements. An access to external financial sources, e.g. subsidies, may favour development or stimulate already developed internationalisation activities.

Different types and focus of **international activities** can be distinguished depending on the fact if we understand collaboration of a particular cluster member’ company with another company but from different cluster, or international cooperation between cluster organisations. Therefore, the prioritisation of actions, markets, and partners is extremely important. Besides, as noted by Greenhalgh (2012: 59) “cluster internationalisation is not an isolated activity. It forms a **key**

component of many other important activities, e.g. innovation, commercialization, skills development, export promotion, and attracting Foreign Direct Investment”.

Figure 2 provides an overview of a cluster’s internationalisation activities. The activities are grouped according to the difficulty in their development, and in accordance with the clockwise direction of their implementation.

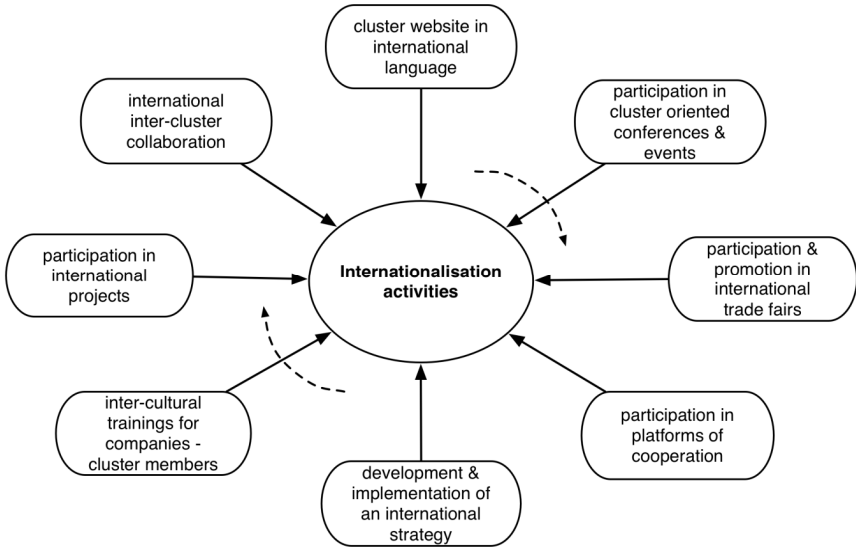


Fig. 2 An overview of a cluster’s internationalisation activities
Source: Own development

A crucial factor in the development of internationalisation activities constitutes the knowledge of foreign languages. The presence of a **cluster website in an international language** (typically in English or in accordance with spatial market distribution) appears to be strongly associated with (a) better performance, in terms of innovation and competitiveness, (b) attracting new partners, and as a result (c) with overall cluster performance (Ketels et al. 2012).

Furthermore, and importantly, this constitutes the possibility of getting in contact with other clusters/cluster managers. Such contact can be achieved thanks to **participation in cluster conferences**, such as the Competitiveness Cluster Forum or the TCI conferences (The global practitioners network for competitiveness, clusters and innovation), where

hundreds of cluster managers, and cluster experts, meet in order to discuss current trends and issues concerning clusters, their cooperation and competitiveness^{7,8}. Also, participation in other **cluster events**, e.g. cluster-to-cluster matchmaking and cluster-to-cluster meetings - organised on international, EU or national level - open up further possibilities to meet potential partners for collaboration.

Another opportunity to meet potential partners constitutes the **participation and promotion at international trade fairs**. These provide a platform for exchanging business contacts, discussing common interests, and getting to know new products and markets, etc.

These activities foster an increase of the visibility and reputation of the cluster from local, or national, to international level. Once the potential of a cluster organisation is acknowledged by a wider circle, it is easier for the cluster to find new partners for cooperation and to be involved in the collaboration of international projects. A well-known cluster also has a stronger voice when lobbying, *and* in communication with policy makers and government authorities. As aptly stated by Hantsch et al. (2013: 20), “high international visibility in general also supports all internationalisation activities”.

Also, as clusters and SMEs have limited financial, and time, resources for the development of their internationalisation processes, an important role may play out, such as **platforms of cooperation**. For example, the European Cluster Collaboration Platform (ECCP) offers numerous possibilities for clusters where mapping and profiling of cluster organisations constitute as a priority. Thanks to this, member clusters are visible globally and thus it is easier for them to be found by prospective partners. Furthermore, the platform provides various tools for linking clusters and SMEs, the searching of potential partners, tailor-made newsgroups, discussion fora, and many more (Ketels et al. 2012). In addition, a rich source of information on clusters can be found in the Global Cluster Observatory, as well as in the European Cluster Observatory run by the Centre for Strategy and Competitiveness at the Stockholm School of Economics. They help to identify regions with specialised clusters, which may become partners for a collaboration project. Furthermore, participation in platforms of cooperation constitutes a good opportunity to find partners for collaboration on common

⁷ “Cluster Management Booklet 2. Industrial cluster excellence. Whitepaper on preconditions, policies and best practices”, Alplastics, n.a., accessed July 20, 2014, http://www.clusterland.at/files/VOL_2.pdf.

⁸ www.tci-network.org.

(research) projects.

Implementation of internationalisation strategy of a cluster⁹ has a significant influence on development and implementation of internationalisation activities (for more information see the section “Factors influencing internationalisation of a cluster organisation”).

Another vital element involves knowledge of cultural patterns and differences. Therefore, **intercultural training for companies – cluster members**, which have less experience in internationalisation, may be extremely important and helpful¹⁰. Thanks to the available specialised training, cluster members become aware of differences and gain a better understanding of a partner’s culture and thus can better coordinate and organise joint activities under common projects.

Furthermore, **participation in international projects** supports internationalisation, as local companies get to know partners abroad, have opportunity to exchange their experience in the field, and have a chance for mutual learning, e.g. about particular expertise, organisational structures, etc. Also, through participation in international projects, a cluster and its members have an opportunity to find suitable partners and build trustworthy relationships, on the basis of which, further future cooperation may be developed. If not directly found in the current project, suitable partners may be gained thanks to the recommendation of current project partners¹¹. One of the indicators of a successful cooperation among clusters, apart from tangible results of an existing common project, is a clear potential for further cooperation projects.

In addition, companies - cluster members may get to know their potential partners through inter-cluster cooperation. **Inter-cluster collaboration**, however, may take many different forms, such as the cooperation of clusters in the same region and country, or beyond borders with clusters overseas, such as cross-border or trans-national¹². Thanks to

⁹ PRO-INNO Europe. 2009, *CMQ – Cluster Manager Qualification*. Results of a comprehensive survey on tasks, skills & training needs of European cluster managers. Accessed August 10, 2014, http://www.clusterplattform.at/fileadmin/user_upload/clusterbibliothek/624_CMQ-summary-report_CEE-CN_090428.pdf.

¹⁰ “Cluster Management Booklet 2. Industrial cluster excellence. Whitepaper on preconditions, policies and best practices”, Alplastics, n.a., accessed July 20, 2014, http://www.clusterland.at/files/VOL_2.pdf.

¹¹ Ibid.

¹² PRO-INNO Europe. 2009, *CMQ – Cluster Manager Qualification*. Results of a comprehensive survey on tasks, skills & training needs of European cluster managers. Accessed August 10, 2014,

the transfer of trust via clusters, the cooperation between two companies, from two different clusters, receives a solid basis and saves a great deal of money and time giving the cooperation a good start and the best opportunity for promising results. International orientation of regional networks, together with specialised management in this field may result in many successful outcomes.

Internationalisation may bring many **advantages** starting from simple access to more advanced knowledge from abroad, through learning about technologies that are more advanced and their implementation towards the improvement of local productivity and competitiveness (Delgado et al. 2012). The advantages of cluster internationalisation are listed in Figure 3. They can be grouped into networking benefits, economic benefits, strategy benefits, market benefits, and promotion benefits.

The networking benefits from a clusters internationalisation are connected with a rapid transfer of knowledge and information, gaining more qualified people (assessing complementary skills) and building partnerships with other business actors (Meier zu Köcker and Buhl 2007; Ffowcs-Williams 2013). Because of this, access to new resources, technological and quality improvement, learning from new experiences, and easier penetration of international markets, are all possible. This, in turn, stimulates the international competitiveness of a cluster organisation, and its members (Meier zu Köcker and Buhl 2007; Pla-Barber and Puig 2009).

Furthermore, among the advantages of a cluster's internationalisation, the economic benefits can be distinguished. Among them are the collective use of resources (distribution channels, suppliers, transportation) and thus a reduction of the internationalisations costs (Meier zu Köcker and Buhl 2007). Another economic benefit includes the positive effect of a cluster's internationalisation on the performance of member companies.

As companies constitute the core of cluster organisations, a great number of studies have been focused on the effect of internationalisation on the performance of companies (Bianchi and Ostale 2006, Castellani and Zanfei 2007, Assaf et al. 2012). The relationship between internationalisation, and company performance, has been a topic of debate and interest of many researchers, however, proving to be both positive (e.g. Chen and Tan 2012) and negative (e.g. Collins 1990, Assaf et al. 2012). As a positive effect, the gaining of size and the improvement of company performance - in terms of e.g. being more productive, having higher capital intensity and paying higher wages - have to be highlighted; as well as the overall pace

of the growth of productivity being proven to be faster (Hagemejer and Kolasa 2011). In addition, there is a positive linkage between the internationalisation of R&D and innovation performance, and thus, company performance has to be underlined (Chen, Huang and Lin 2012). Whereas, negative effects can be connected with risk measures and leverage (Collins 1990); operating in a more complex political/institutional environment, with heightened political and operational risks (Delios and Henisz 2000); and/or being involved with imperfectly integrated markets (Michael and Shaked 1986), which may limit a company's freedom or result in repatriating its profits. Assaf et al. (2012), following prior research, highlights the U-shaped relationship between internationalisation and company performance, pointing out its important advantages as well as its negative impacts.

Furthermore, advantages of cluster internationalisation can be seen in strategy benefits. Meier zu Köcker and Buhl (2007) point out the advantage of a division of responsibilities and work, and the ability to offer full-scale solutions or services; because of this, it is possible to obtain a better position in contract negotiations. Another strategy benefit involves attracting FDIs, which provides the possibility to incorporate new technologies and innovations, and brings an external financial injection to the region/country (Greenhalgh 2012).

In addition, cluster internationalisation may bring market benefits. These are connected with access to new products and services, and key infrastructure (Greenhalgh 2012); also, in conducting market analyses and entering new markets, and thus finding new business partners and starting new partnerships (Ffowcs-Williams 2013). Furthermore, the internationalisation of sales, the engagement in expensive R&D activities, and the development of new products and services (Ffowcs-Williams 2013), as well as export promotion (Meier zu Köcker and Buhl (2007), can be distinguished.

Affiliation to the cluster may also bring, for its members, the (promotion) benefits of establishing a collective image and the development of shared values; it may also become beneficial from the social interaction point of view (Pla-Barber and Puig 2009). International clustering, apart from "bridging"¹³ the information gap, brings benefits in the international recognition of the region (increase of its attractiveness and competitiveness);

¹³ The term "bridging" is used by Sölvell and Williams in "Building the Cluster Commons" published in 2013, and expresses the process of reducing gaps and building "bridges"/"commons" between particular entities, sectors, gaps in different fields.