



Alps 4 EU

„Overcoming the fragmentation of clusters in the Alpine Space”

Recommendations for policy makers from cluster managers

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The recommendations for policy makers from cluster managers are based on the **SWOT - analysis of the cooperation potential between clusters** study that was built through a submitted questionnaire to 46 cluster managers in all participating regions of the ALPS4EU project involving 6 countries (France, Switzerland, Italy, Germany, Slovenia and Austria) in four key sectors: Energy and Greentech, Mechatronics and Engineering, Chemistry and New Materials, ICT. The questionnaire was structured in four parts including:

- clusters' structure and organization
- clusters' strategy
- core competences & strengths of the clusters
- international cooperation

The objective was to identify the potential for establishing meta-clusters in the Alpine area. Cluster managers' point of view about the organization, activities and competences of the cluster initiatives as well as the strategic potential for the creation of meta-clusters leads to the following remarks for policy makers as recommendations.

Recommendations

Source of financing

In general, cluster initiative's budget is financed by 2 main sources: the regional government (one quarter of the annual budget) and membership fees. Other relevant sources of financing cluster initiatives are through funding by national government, income from services and activities and funding by the European programs. Nevertheless, the study revealed that other sources of financing such as funding by local government, support by Chambers of Commerce or research institutions plays a minor role additionally to private funding.

Time period of funds receipt

As public funds are a crucial source of financing for cluster activities, there is a high interest in looking into detail how the funds are distributed depending on weather annually, at the beginning of a given funding period (usually at the beginning of the year). Usually, this is the legal structure and the type of organizational holder of the cluster initiative that sets the funding period. Project duration and administrative funding procedures are also determining a project-oriented funding approach. At this stage, it's important to acknowledge that by not receiving funds at the same period, the collaboration between partners can sometimes be difficult depending on the money involvement in the different projects' tasks. The objective is to give the opportunity to each project participant to be involved in their respective tasks, so that they won't be blocked by the funding period.



Evaluation of the cluster performance

There is a regular evaluation of performance (equal share of quantitative and qualitative methods) for 85% of the interviewed cluster initiatives. Usually, external evaluation periods coincide with the financing periods and are commissioned by regions and states. Nevertheless, some cluster initiatives haven't been evaluated yet. To enhance their performance and to maximize their chance of successful operation, the evaluation should be part of cluster initiatives policies (even if an integrated self-evaluation is often used as a management tool).

Definition of the cluster strategy

The future cluster strategy will either be defined by an internal cluster process, either as part of a regional innovation strategy or defined by the responsible organization or owner. As this strategy is in majority linked to the financing activities of the cluster activities, there's a need for future strategies to be defined in a collaborative process between the cluster and the financing institution.

Business models/financing strategies

Regarding cluster initiative's future business model or financing strategy that are planned to be adopted, the results of the study showed a high decreasing tendency for public funding by regional and national authorities. In general, a higher participation in EU-funded projects is expecting for the next years. The relevance of this tendency is to take seriously into account meaning that business models or financial strategies are turning into a higher source of opportunities at a European level than on a regional and national level.

Most required support in the future

Cluster managers reported that the major issue in the future will be a question of financing. According to 37 out of 45 cluster managers, the financial support will be an essential requirement for the following years. A field specific support obtains the second majority interests (16) in terms of internationalization for example. Nevertheless non-monetary support such as coaching will not be required by most of the clusters. Additionally, one cluster manager noticed needing contribution from the policy level and companies in the way of marketing. One single manager expresses no need for support. To resume the different needs for cluster initiatives, this is obvious that lifecycle of most clusters will depend on the financing. Nevertheless the alternative would be to require specific field support by focusing on internationalization.

Companies in the cluster

The third part of the questionnaire consisted into focusing on the core competences and strengths of the cluster. Identified as strengths, weaknesses and competitive advantage of the cluster companies as well as core competences and strengths of research institutions in the clusters, a panel of the most relevant points will be discussed through the following:



Strengths: core competences in the companies

The fields discussed were international leading companies, strong SME basis, market leaders, high-tech business creation/entrepreneurship and others. All those fields are identified as strengths for most of the clusters by:

- having members internationally active (even if all together they are a minority among cluster members)
- cluster members that are SMEs (approximately 3 out of 4) with the ability of cluster initiatives to stimulate SMEs which can be accompanied by the political mandate to address SMEs in particular
- being market leaders in niches (55%) in their cluster
- having innovation leaders in their network (large companies and SMEs)
- counting the field of high-tech business creation/entrepreneurship as a core competence and strength
- other core competences and strengths (7) such as strong and interdisciplinary university base, diversity and complementarities of different competences, covering the value chain, know-how, financial services, e-government and others.

Weaknesses and threats: specific weaknesses and threats of the companies

The major weaknesses were identified concerning:

- the *structure of the cluster members* that are translated by too small cluster companies to compete internationally or to lead projects and usually has a too strong regional orientation
- the *internal company capacities* with a lack of financial resources for R&D and a too strong national orientation/missing export orientation
- the *soft factors* such as communication, mindset, cooperative orientation with a lack of interest to cooperate in the cluster companies/lack of communication within the cluster
- the *economic and legal framework conditions* with an uncertain global economic outlook and strong dependencies on market development, difficulties in terms of internationalization by being hard to find new markets, no pressure to internationalization or obstructive regulation framework that leads to uncertain perspectives of legislation
- the *financial aspects* with the fluctuation of national currencies (especially for the Swiss Franc), the lack of risk/venture capital, the lack of financial support and funding programs and the high difficulty in availing national funds

Opportunity: specific competitive advantage of the companies

The identified business opportunities are identified as mobilizing SMEs, fostering innovation and cooperation and entering new markets. As a sample of the different mentioned aspect by cluster managers as being competitive advantages of the cluster companies there are:



- Numerous small companies in the cluster □ engagement of leading companies in joint programs
- Technology transfer within the cluster as well as with external partners
- High R&D-orientation of the cluster companies
- Unleashing the synergies among different actors and competences in the cluster
- Flexibility and diversification □ high concentration and excellence
- Technology competences & innovation capacities
- „Innovation through cooperation“
- Know-how and technological experience
- Heterogeneous competences and skills
- Overcoming small domestic markets through transnational cooperation
- Raise of awareness for innovation
- Technology-transfer from universities to regional companies

Research institutions in the clusters

Core competences

Core competences and strengths of the research institutions in the clusters have a high visibility in international excellent research institutions, have strong research structures, have internationally renowned researchers, and reveal a strong engagement in the European Research Area and strong cooperative research.

Specific advantage

The cooperation and close relation between universities, research institutions and cluster companies came out to be one of the major cluster's advantages. Moreover, specialized institutions appear to become a location advantage.

At a regional level, the role of technology-focused and cooperative research institutions is taking a high importance. An entire region can therefore benefit from competitive advantages by combining excellent R&D providers and their structural linkage with other industrial members of the cluster.

Quality of universities' technological know-how reflects the meaning of regional tradition and specialization, which is part of the scientific and entrepreneurial sphere as well.

Even when there is a lack of experience and knowledge in the companies of the cluster, this can be covered by experience and expertise of the research institutions.

Moreover, the national and international reputation of research institutions and universities becomes increasingly important in order to have an international visibility.

For the future, the main challenge is to be able to maintain the balance between a broad range of technologies and research fields on the one hand and excellence and scientific focus on the other hand.

International cooperation

The final part of the questionnaire treated about international cooperation and the strategic relevance for the clusters, their experiences in international cooperation, their current



engagement in European or any other international activities and finally their expectations regarding the establishment of a meta-cluster in the Alpine region.

It came out that *strategic relevance of international cooperation for cluster initiative* was very high (12). Another 14 cluster managers defined it as medium (3) or medium/high (2). Low relevance was reported by only 5 cluster managers.

While *international cooperation* seems to be essential for the cluster initiatives, not all of them are concerned with an already existing experience in that field as this has been identified as highly variable. While 10 cluster managers have a high experience in international cooperation, the majority of 16 clusters are judging their experience as being at medium level and only 4 have a low experience in international cooperation.

Experience in using EU-programs for international cluster cooperation

Identified as a driving force in transnational cooperation projects, EU-programs and funding schemes should highly be promoted, but the experience in using EU-programs for international cluster cooperation came out to have a low tendency with only 3 cluster managers having a high experience in using European programs for international cluster cooperation.

Even if 80% of the clusters are engaged in European or other international activities, the study clearly shows that clusters especially use their engagement for interregional cooperation programs (by being engaged in Programs of European Territorial Cooperation).

Considering the results, a quite high strategic relevance of international cooperation for cluster initiatives is requested and the majority of the cluster initiatives are involved in EU-programs for international cluster cooperation. Nevertheless, cluster managers reported a lower experience in international cooperation. In the following years, the tendency should increase by having resources to match the previous expectations.

There are also a few research institutions that were involved in previous projects of international cooperation by being involved in 23 clusters, furthermore 10 public bodies.

An additional amount of 18 out of 46 clusters are participating in an innovation oriented cluster platforms on an international level.

Benefits in international cooperation with other cluster initiatives or networks

International cooperation with other cluster initiatives and network functions is seen as a door opener for international contacts and transnational collaboration. Moreover, international cooperation with other cluster initiatives has the particularity to give access to innovative developments and technologies, clearly raises the international visibility of the cluster resp. the cluster region and opens new international markets for the cluster companies.

Barriers of international cooperation

Interviewed cluster managers frequently had to face barriers with international cooperation (78% or 36). As main relevant barriers, the involvement and motivation of companies for



the participation in international projects was the first difficult issues encountered, followed by funding for international activities, administrative efforts for EU or international projects by reporting in 14 cases that objectives and results of international projects are not fully in the scope of the cluster strategy.

International cluster cooperation has an increasing tendency in the future and will be a crucial aspect for future cluster strategy and policy. Some cluster initiatives are counting internationalization as part of their strategy and therefore have the wish to intensify their international cooperation activities. One of last years' high priorities was inter-clustering by cooperating with other clusters and networks. This orientation is planned to be increasing for the years to come due to the market driven trend. In order to achieve and maintain global competitiveness, companies have to enter new markets, gain know-how, invest in R&D on a high level and so on – the cooperation with other clusters can give a reasonable drive, esp. for SMEs. Though, it is interesting that several cluster managers mentioned the challenge to motivate companies for international cooperation projects.

With the aim of fostering international development in the cluster, cluster managers were asked to specify potential solutions:

- Information of cooperation availability and international project opportunities
- Additional funding for international activities by local and European authorities | Increase funding to liberate cluster human resources
- Strengthening and expanding existing cooperation platforms and networks
- Fostering communication within the cluster
- Support for cluster members, esp. SMEs, in international activities
- Simplification of administration and funding processes
- Involvement of large companies and research institutions
- Increase of international network activities | Personal contacts as a basis for cooperation
- Offer of efficient organizational solutions
- Establishing contact points at local and European level with regular meetings
- Promoting clusters in context of international trade fairs and delegation visits
- Increasing knowledge transfer in the course of cooperation projects
- Building a network of clusters with shared strategy and common plan of activities
- Establishing an exchange program for cluster managers

These points have to be evaluated to the extent possible in order to determine if their realization could lead to the expected results.

Activities of a meta-cluster

As the main objective of the ALPS4EU project is to “overcome the fragmentation of clusters in the Alpine space”, establishing a meta-cluster could be useful to intensify the cross-cluster-cooperation and remove transnational barriers. A meta-cluster is defined as



a trans-regional network of cluster initiatives, which focuses on the same or complementary specific technological field or sector and consists of at least three cluster initiatives in three different regions.

The following activities of a meta-cluster would be helpful to foster the internationalization cooperation with other clusters and networks according to the 46 cluster manager interviewed.

39 cluster managers agreed that a meta-cluster should carry out *general activities to strengthen the visibility and influence at EU level*. The fact that participation in EU-funded projects is estimated to increase in terms of cluster financing in the future by 40 out of 46 cluster managers – visibility and strong networks at EU level play a crucial role in the development and implementation of EU-funding for cluster activities is to take into account.

Joint analysis and studies are also expecting to be useful according to 37 cluster managers. This could relate to the characteristics of meta-clusters as a network of cluster initiatives, which focus on the same or complementary specific technological field. Therefore the identification of global economic and technological trends, which affect the cluster companies in different countries in a similar way, and expertise on the outlook is of interest for several clusters.

Defining common cluster action plans on a yearly basis could be useful according to 32 cluster managers. Nevertheless, three out of four cluster managers want to expand the regional strategic orientation and focus on trans-regional collaborative actions on a common basis, but cluster initiatives will remain their autonomy and responsibility for the regional cluster members.

Establishing a common inter-cluster information/data warehouse would be the fourth most useful activity to put in place for a meta-cluster (29 votes). By providing information about cluster members, their competences and requirements etc., this is judged as an important basis for the identification of common strategic actions, programs and projects.

Defining common policy strategies through an inter-cluster-network would be helpful to foster international cooperation with other clusters and networks according to 27 cluster managers. As meta-clusters are dealing with the same or familiar technology or branch of industry a common policy inputs at regional, national and European level could have more impact force as individual ones.

Expectations regarding the establishment of a meta-cluster

Two main expectations have clearly been pointed out by the cluster managers: a meta-cluster should function as a door-opener for major international networks and collaboration and should deliver access to financial funding of the EU. Based on these results, the



aspect of financing should play a crucial role in all considerations about the establishment of a meta-cluster. All other possible effects and gains are not expected by more than a half of the cluster managers interviewed.

Conclusion

The 46 cluster managers from 6 countries interviewed, of which 7.100 companies. As the questionnaire was very detailed, most of the clusters were analyzed very deeply regarding their structure, strategy, strengths and challenges. The statements given and considerations exposed should therefore not be underestimated.

The key points that are important to remember are the following:

- Sources of financing that are used for cluster activities show a high meaning of regional funding and membership fees. In some cases, national funding also plays a crucial role. In the outlook, a clear majority of the cluster managers expects regional and national funding to decrease – while participation in EU-funded projects as a source of finance will highly increase in future. Throughout all countries and regions regarded in this survey, a fundamental shift in the financing of the clusters from the regional and national level towards the European level is expected. This can be a powerful driving force for a distinct intensification of trans-regional and transnational cooperation, which is usually demanded for the acquisition of EU-funds
- The fact that clusters contain competitive companies – leading companies as well as SMEs – and high-level research institutions makes that the structure and know-how of cluster members form the basis for cluster activities at international level, especially in terms of collaborative projects. The preconditions for raising international cooperation are given, as most of the clusters contain excellent enterprises and academic institutions.
- The ability of clusters to activate SMEs for international cooperation constitutes an important value added
- While 5.900 SMEs participate in the 46 clusters, including some very specialized companies at high levels of competence, the greatest barrier they are facing in matter of international cooperation remains, according to the cluster managers, involving and motivating cluster companies for participation. At this point, European policy stresses the potential of SMEs in terms of innovation, internationalization and entering new market fields. For example, in the upcoming 8th Framework Program for Research (“Horizon 2020”), SMEs and SME associations will be especially addressed and involved in European research activities.
- The majority of the cluster initiatives (85%) is evaluated on a regular basis, showing a strongly pronounced culture of evaluation, which is the basis for adjusting the cluster activities to the demands of the cluster members and the objectives pursued and usually stands for a high level of professional and excellent cluster



management. The efforts in the preparation and composition of international networks, projects and meta-cluster activities require organizational competence and must be taken in mind by evaluation authorities.

- The targets and strategic outlook are very coherent among the 46 clusters. On top of the agenda are (a) the creation of cooperation networks among cluster companies, (b) knowledge transfer and (c) strengthening the competitiveness of cluster companies. According to this, a stronger emphasis on international collaboration of clusters is nothing but a logical consequence of economic developments (globalization, international division of labour, multi-national enterprise networks and supply-chains, etc.). Trans-regional and transnational collaboration of clusters can make a valuable contribution to strengthening the competitiveness of cluster members and achieving access to knowledge and expertise.
- By setting a thematic focus on Key Enabling Technologies (KETs), such as nanotechnology, micro- and nanoelectronics, advanced materials, biotechnology and photonics, most of clusters have been able to have the European Commission taking these technologies as main driving forces behind the development of future goods and services. Therefore they play an important role in R&D and innovation strategies of many industries and regions and are regarded as crucial for ensuring the competitiveness of European industries in the knowledge economy
- With almost half of the clusters active in the fields of energy and green tech there is no doubt that energy and sustainable economy will be of high priority in politics, innovation and research in the next years. In the current strategies at the European level (Europe 2020, Horizon 2020, regional policy...), energy and sustainability are a main part of the so called “grand challenges” and will be a major issue to deal with
- The awareness on the meaning, benefits and challenges of international cooperation among the cluster managers is very pronounced. Most of the clusters have experience in international cluster cooperation, especially in the participation in EU programs. Furthermore, a clear majority of cluster managers interviewed are actively involved in EU-platforms, programs and projects at present. Still, there is a gap between the strategic relevance of international cooperation in the future and the extent of experience in international cooperation in past and present. Challenges arise mainly from the involvement of cluster members, as mentioned above, and the funding for international activities. Taking into account that 98 % (!) of the cluster managers consider an increase of international cooperation in the future, the barriers have to be removed as quickly as possible and an upgrading of competences in participating in EU programs and using EU funds will be crucial. Therefore, qualification and training measures with regard to the program portfolio of the next EU period from 2014 – 2020 seem to be reasonable. Besides, the diverse benefits of international cooperation have to be stronger enlightened.



By having this time a closer look to the potential for meta-clusters, there are three aspects to take into account to conclude:

- First, the fragmentation and heterogeneity among the clusters should be overcome by common strategies for clusters. For that, initial workshops of cluster managers of the same thematic focus in the defined four key sectors (Energy and Green Tech, Mechatronics and Engineering, Chemistry and New Materials, ICT) would be useful (networking, concrete interests in collaboration, expectations, capacities etc.). On this basis, common strategies for clusters with the same focus could be defined, including an emphasis of collaborative projects, potential partners and cluster members involved, facing the barriers and so on. As the issue of financing obviously plays a crucial role, the possibilities of EU-funding and participation in funded projects should be considered from the very beginning and appropriate experts should be involved
- Second, collaborative R&D and innovation projects can be initiated as the clusters contain companies and research institutions at high level of excellence. There is undoubtedly a high potential for a strong common participation in the European Research Area (ERA). The key aspect is the clusters' ability to activate and integrate a broad range of their members, esp. companies, for collaborative projects. There is evidence to suggest that a stronger international participation, esp. of SMEs, in collaborative projects and support by European bodies will be required from 2014 on. This opportunity must not be missed and clusters from the Alpine region should early set priorities and actions to contribute to their strengths and knowledge in the ERA
- Third, a meta-cluster as a network of cluster managers could be a strong and sustainable basis for fostering trans-regional and transnational cooperation and a remarkable increase in the European and international visibility. The opportunities and benefits of cooperation can be promulgated to companies, researchers, public bodies and the public. Furthermore, the cluster managers should function as multipliers in their regions and nations and as enablers for cross-cluster-cooperation. Beyond, the knowledge, benefits and potentials of clusters in the Alpine area will sooner or later be broadly appreciated



Summary of the recommendations

- Two main sources of financing cluster initiatives: through the regional government and membership fees. Funding by national government, income from services and activities and funding by the European programs constitute other relevant sources of financing
- Taking into account that the funding period may differ among partners, it shouldn't restrict or unable a project participant in its tasks for a given project
- The evaluation of cluster performance should be part of cluster initiatives policies (even if an integrated self-evaluation is often used as a management tool) in order to enhance the performance and to maximize the chance of successful operation
- Future cluster strategies need to be defined in a collaborative process between the cluster and the financing institution
- As cluster initiative's future business model or financing strategy express a high decreasing tendency for public funding by regional and national authorities as well as a higher participation in EU-funded projects expected for the next years, it should be taken into account that this translates a turn into a higher source of opportunities at a European level than on a regional and national level
- Support in the future: as financial support will be a major issue in the future, the solution would be to require specific field support by focusing on internationalization
- A high strategic relevance of international cooperation for cluster initiatives is requested and the majority of the cluster initiatives are involved in EU-programs for international cluster cooperation. As a lower experience in international cooperation was reported by cluster managers, the tendency should increase by having resources to match the expectations in the following years
- The increasing tendency of international cluster cooperation in the future could require new cluster strategies and policies
- Activities of a meta-cluster that would be helpful to foster the internationalization cooperation with other clusters and networks:
 - General activities to strengthen the visibility and influence at EU level
 - Joint analysis and studies
 - Defining common cluster action plans on a yearly basis
 - Establishing a common inter-cluster information/data warehouse
 - Defining common policy strategies
- Two main expectations of the establishment of a meta-cluster:
 - It should function as a door-opener for major international networks and collaboration
 - It should deliver access to financial funding of the EU