

CLUSTERCOOP

WP4

Investigating the possibilities of emerging industry development through cross regional cluster development

Project generation framework for emerging industries

as an Input into common framework policy proposal (3.1)

July 2013



Project generation framework for emerging industries

Industrial emergence is an evolutionary process and it is difficult to capture it until after the industry develops successfully. Emerging industries are therefore recognized after they have already emerged. In spite of this characteristic, policy and different analytical tools and technical support has a role to play.

Based on the results of the WP4 “*Investigating the possibilities of emerging industry development through cross regional cluster cooperation*” we suggest actions to be taken to support cooperation of clusters in emerging industries. They are directed at the national/regional policy makers, at the European Commission and at cluster managers/cluster organizations.

Action proposals directed at the national policy makers

We suggest the following:

- Apply a more structured and systematic (evidence-based) approach on how new industries can emerge from existing industries and clusters. Evidence suggests that in most cases new industries draw upon and recombine skills and capabilities already existing in the region. Therefore it is important to start with identifying clusters/industries with entrepreneurial firms having production and organizational capabilities for developing new products, processes, technologies, and organizational practices, based on capabilities that have been historically shaped, leading to the development of special skills and regional specialization. Clusters with a critical mass of such firms are those having the greatest potential to enter into cross-regional cooperation in emerging and new industries. Common methodology used in this study proved to be a powerful analytical tool for such identification. It is recommended to apply this methodology in an exhaustive manner, including in research all clusters/ industries in project partner countries that show such potential.

- Put appropriate focus on strong framework conditions conducive to emergence of new industries based on the cross-regional cluster cooperation. As results of WP4 illustrate, there are a number of weaknesses in the business environment for innovation in CEE partner countries that should be addressed by well defined and effective national policies. Proposals enumerated in the *Common proposal for the cross regional cluster cooperation in emerging and new industries* address these weaknesses. It is therefore strongly recommended that CEE partner countries take the following actions:
 - Remove obstacles for exploiting possibilities for emerging industry development on firm and national level;
 - Promote the development of trustful networking culture;



- Build up industrial innovative capabilities - strengthen and inter-link activities around the knowledge triangle between research, education and innovation.

- Adopt a holistic approach in designing national policy for the promotion of cross-border cooperation in emerging industries. This implies integration and coordination of all different policy instruments that may affect firms, clusters and industries' potential to engage in new industry development, ranging from education – building technical, entrepreneurial and business capabilities, various financial aspects, investments in development of capabilities in the area of KET as important drivers of emerging industries, on providing information on market potential to enter new markets/industries, to institutional environment and infrastructure, such as networks and platforms for enterprises to cluster and for clusters to network.
- Strongly promote networking as a valuable innovation business model. Priority should be given to cross border cooperation and networking based on cross-technological links and not horizontally, since it is the former that leads to layering of different and complementary knowledge that most often results in the creation of new knowledge that is a potential seed for new industry development.
- Vigorously promote values on which trust in a society is built upon, such as integrity, reliability, fairness, open communication, competences and loyalty. When these values are accepted in a society, this creates a business culture conducive to innovation cooperation. Not only the proximity in technological specialization between partnership countries but also cultural proximity in which trust is an important part, will determine this dynamics.
- Consider the technology and service fields identified in Output 4.1.3 (advanced materials, optics and electronics, nanotechnology and micro technologies, process technologies, ICT and engineering) as having potential for cross border cooperation in emerging industries when designing national innovation strategy for smart specialization. Some of them are technologies that have been identified by EC as key enabling technologies, such as nanotechnology, photonics, advanced material, industrial biotechnology and advanced manufacturing technologies. They are a key source of innovation due to their knowledge intensity, rapid innovation cycles, high capital expenditure and highly skilled employment. At the same time they are multidisciplinary, cutting across many industries.
- Consider developing cross-regional clusters programs to support cross-border cooperation in industries that were identified in Output 4.1.3. Support should focus on R&D and innovation activities.

Action proposals directed at the European Commission

We suggest the following:

- Design support programmes to enhance cluster cross-border cooperation based on understanding why companies themselves are reluctant to enter into cross-regional cooperation in emerging industries. Without understanding these reasons, concentration of support on cluster managers or cluster organizations to further this process will not lead to desired outcome. Here a more strategic and coordinated approach between Commission cluster policy and Cohesion policy (Cooperation and other Structural Fund programmes) is necessary in helping partner countries to effectively address the obstacles pertaining to companies themselves, their capabilities, willingness and ability to engage in cross-border cooperation with the aim to exploit technologies for emerging industry development.
- Streamline the funding and administrative procedures. Design programmes so to avoid marginalization of presence of smaller firms in EU-financed projects and in line with their core production capabilities. Design projects that would lead to long lasting cooperation between partners and to the development of trustful culture, which are both necessary to engage in finding new solutions based on collective capabilities of project partners, stimulating cross-border cooperation for new industry emergence.
- Provide information on the best practices of cross border cooperation between EU companies in emerging industries and on the best national innovation and KET policies.
- Organize training for CM and CO on how they can identify and act on new trends for supporting the development of new industries.
- Provide opportunities and incentives for the creation of platforms for cross border collaboration and cross-fertilisation between clusters leading to new industry development, organized around broad themes, for example where a trend of growing demand is evident due to societal challenges or business potential.

Action proposals directed at Cluster managers and cluster organizations

We suggest the following:

- Cluster managers and cluster organizations (CM and CO) should promote cross border cooperation between partnership countries in the industries identified by partnership countries as containing entrepreneurial firms with key technologies and services with potential for emerging industries. Cross-regional networking of cluster companies from the following industries should be set up and facilitated: advanced materials, optics and electronics, nanotechnology and micro technologies, process technologies, ICT and engineering; and in the fields of health care, energy efficiency, sustainable transport, sustainable construction and in environment/sustainable technologies.
- CM and CO should stimulate awareness and interest between cluster members for cooperation in identified industries and technology areas with opportunities for emerging industry development by developing information and database on partnership countries companies' complementarily skills and on their interest for cooperation in identified areas.
- CM and CO should promote awareness of the need for cross-border cooperation in emerging industries by informing cluster companies about the best practice examples of such cooperation in EU and worldwide.
- CM and CO should engage in collecting and channelling information on future new technology trends and changes in global demand that can be found on different EU platforms and are relevant for stimulating cross-border cooperation in emerging industries.
- CM and CO together with cluster companies should lobby for designing long lasting national and EU programs and measures supporting cross border cooperation in emerging industries between partnership countries.