



# CLUSTERS AND EMERGING INDUSTRIES PROPOSALS FOR JOINT POLICY ACTIONS AT TRANSNATIONAL OR MACRO-REGIONAL LEVEL

DEVELOPED IN THE STRATEGIC PROJECT CLUSTRAT

# CLUSTRAT – BOOSTING INNOVATION THROUGH NEW CLUSTER CONCEPTS IN SUPPORT OF EMERGING ISSUES AND CROSS-SECTORAL THEMES

Emerging industries require innovation at the interface of industries, technologies and services including the cross-sector implementation of Key Enabling Technologies (KET). The strategic project CluStrat aimed at the development of new cluster concepts fostering such cross-fertilization in order to better seize the related opportunities and advance the emerging industries in the European regions. The transnational consortium developed a joint strategy on new cluster concepts for central Europe.

**The present document translates the strategic approach into proposals for joint policy actions**, suggesting possible topics and instruments to be implemented at a transnational and macro-regional level. The following proposals shall serve as guidance for policy makers and programme managers for joint actions paving the way for new cluster concepts that enable clusters to take an active role in emerging industries.

The full strategy on new cluster concepts as well as further project results, including recommendations to policy, are available at

[www.clustrat.eu/results/](http://www.clustrat.eu/results/)

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## **Joint Action 1 | Facilitate new types of networking & cooperation activities**

Due to the fact that emerging industries tend to require multidisciplinary skills, new types of networking and cooperation activities are needed – within and between different innovation communities and their actors (clusters, firms, R&D, intermediaries, policy makers...), to stimulate cross-sector activities and knowledge transfer for continuous improvement of skills and competences to emerging market trends. Clusters should be encouraged through policy instruments to

- enforce intra-cluster cooperation among firms and between SME, knowledge providers and business services;
- encourage cross-cluster cooperation especially with clusters from different sectors or with different technology know-how.

Instruments to support clusters and their members in this could be the following:

- C2C or B2B match-making events, e.g. at international leading fairs
- Ad hoc-partnership building for Research and Technological Development (RTD)
- Innovation vouchers
- Living labs and platforms with strong end-user involvement

Demand-orientation, multidisciplinary or implementation of KET, ad hoc quality cooperation could be among the assets of such concrete cooperation to be funded; however, these features should certainly not be seen as exclusive. Programmes and policy instruments should also keep some kind of flexibility to take account of new insights, approaches, necessities etc. over the coming years.

In general, the range of activities should be left open to allow for and foster the development of completely new formats and constellations of clusters and networks. The cooperation types developed in this context will serve to illustrate the range of possible innovation cluster cooperation, allowing the deduction of models and good practice, thus generating a new set of tools for cluster policy.

**Target groups:** Clusters and cluster initiatives, innovation networks

The new topic here is to open such instruments in a very targeted way and selectively to clusters with a high potential for competitiveness. They are used as incentives for cluster managers or cluster members to take the lead to enhance their cluster competitiveness through cooperation with knowledge providers. Policy makers are encouraged to even specify these instruments to

- a specific emerging industry or societal challenge and/or
- specific KET applications, as they are key for exploiting emerging industries.

**Target groups:** Policy makers on European, national and regional level

## **Joint Action 2 | Stimulate European clusters in various forms**

The issue of meta-clustering is discussed and piloted already, whereby different definitions and understandings of meta-cluster are used. The proposition in CluStrat is that a variety of KET and possibly knowledge-intensive business services are needed to develop competitive products and services for the emerging industries. Very few regions in the EU can offer KET knowledge in all areas – and not all KET knowledge providers may know the specific characteristics of the application fields needed. A European clustering to join forces and bring together all the necessary partners should be targeted and strategic towards specific technological and market oriented objectives. The European Innovation Partnerships are one type of such a targeted “cluster”. But other forms are possible, connecting established and upcoming regional/national initiatives on a European level, to concentrate separated skills and competences, and exchange knowledge about existing R&D-infrastructure (maps). Cluster policy on regional, national and European level should create tools and services to help clusters to join forces with other clusters in Europe, following a cross-sector and cross-cutting approach. Clusters are to be encouraged to form transnational or transregional partnerships with other clusters, so that their cluster members can start strategic development partnerships, e.g. as project consortia for funding applications or as longer-lasting meta-cluster structures. Instruments that would support this could be:

- Cluster matchmaking events
- Mapping of high level RTD infrastructures in Europe
- Mapping of SME service providers for technology and sector specific applications
- European expert workshops to interlink clusters, SME and research as well as user groups
- Innovation public procurement, where public demand e.g. in a hospital asks for a solution to be delivered by a European partnership
- European supplier workshops, where clusters bring together the demand side and potential solutions

This activity could be

- triggered by regional policy makers (NUTS 2) as well as programme area authorities as a top down approach according to EU market needs;
- encouraged as a bottom up process, where clusters or cluster members take the lead;
- a combination of a top down and bottom up approach to interlink the big picture of regional policy makers with day to day challenges faced by regional SME.

This leads to raising European and international visibility, strengthens communication, cooperation and supports a trust-building process within European actors.

**Target groups:** Regional/national clusters, initiatives, networks, policy makers, SME

### **Joint Action 3 | Internationalization activities supported by cluster initiatives**

Clusters can play an important role in supporting internationalization activities of SME. They are well connected to all regional/national experts for starting internationalization efforts, can identify possible partners, provide contacts to other foreign cluster initiatives and can therefore provide the required target market information. This is key in times of saturated European markets – hit by the financial crisis – to widen the scope of selling their products outside the single market but also conducting knowledge transfer (both ways – incoming and outgoing) to make Europe competitive for the future. Instruments that would support this could be:

- Cluster matchmaking events outside Europe (India, China, Indonesia, Brazil etc.)
- Supplier innovation days (see Automotive Cluster Upper Austria)
- Mapping of high level RTD infrastructures outside Europe (India, China, Indonesia, Brazil etc.)
- Mapping of SME service providers for technology and sector specific applications outside Europe (India, China, Indonesia, Brazil etc.)
- European expert workshops to interlink clusters, SME and research as well as user groups to better capitalize on internationalization activities and to better join forces
- Global supplier workshops, where clusters bring together the demand side and potential solutions

**Target groups:** Regional/national clusters/(SME)

### **Joint Action 4 | Improve Excellence of Cluster Management Organizations and know-how carriers to make them capable of anticipating and exploiting emerging market needs and trends**

To compete in rapidly changing environments as emerging markets tend to be, an entrepreneurial mind-set oriented towards identifying necessary services and market trends will cause higher efficiency and professionalism in innovation activities. Promising actions could be:

- Trainings for entrepreneurial mind-sets and in view of the multidisciplinary requirements of emerging industries and chances of KET (e.g. training modules/voucher schemes)
- Training in innovation management techniques such as roadmapping
- Networking of cluster managers with professional business service providers such as the Enterprise Europe Network

**Target groups:** Regional/national clusters, initiatives, networks, policy makers, R&D

### **Joint Action 5 | New sustainable sound business models**

With new forms of clusters – on regional or European scale with long term or with targeted short term perspectives etc. – new business models for the cooperation or innovation networks are to be encouraged. Also in view of new ways for innovation support (funding), e.g. through innovative public procurement or service contracts, new business models should be tested and legal frameworks developed. This includes also a set-up of business models for clusters, in which clusters develop SME technology platforms or living labs to test and pilot new products and services (who pays for the necessary infrastructures, who keeps them updated to newest standards etc.). Competitions for new and best solutions could be called by policy makers in specific areas, e.g. in advanced manufacturing and for specific sectors, to identify working business models for the future. Possible schemes:

- Clusters as project managers for innovation vouchers of their cluster members
- Cluster services are paid by a percentage of income from new product/service
- Clusters as project managers to write applications for funding schemes on regional or national level for their cluster partners (focus: product development)
- Clusters as evaluators of outcomes of initiated projects (how many products developed, how many products sold, how many follow up projects initiated)
- Clusters as compilers of the most suitable blend of SME joining the consortium
- Clusters as imitators of follow-up projects

**Target groups:** Regional/national clusters, initiatives, networks, policy makers, R&D, SME

### **Joint Action 6 | Integrating targeted cross-sector cluster cooperation in available funding schemes**

Borders are still a limitation of knowledge exchange all over Europe. This is not just caused by language barriers but also by different legal frameworks, which limit the transfer of experts willing to be trained in a specific issue abroad and supported by European funds. The CluStrat pilot action “Human Machine Interface” developed cross-border training modules bookable by interested experts. To support the vice versa knowledge transfer between experts, the development of and possibility to participate in such trainings should be fostered. In this case cross-border funding schemes or the applicability of different funding schemes should be improved. The funding scheme should be

- applicable to cross-sector topics;
- easy to apply to;
- short time to grant;
- almost free of reporting hurdles.

**Target groups:** Regional/national clusters, initiatives, networks, policy makers, R&D

### **Joint Action 7 | Evaluate project outcomes within and between different funding schemes**

During the last EU funding period it became obvious that within and between different funding schemes, the topics for funding are very much alike (funding schemes: Competitiveness and Innovation Framework Programme/CIP, CENTRAL EUROPE Programme, South East Europe Programme ...). The outcomes for example of the clusters projects in CENTRAL EUROPE and the South East Europe programmes render, besides important additional findings, a variety of cluster platforms, cluster management tools and indicators or mapping activities etc. Many of these outcomes have substantial overlaps. If similar things are funded it is crucial that the actors involved know about these activities and that they can capitalize on the experience of similar projects (see e.g. CluStrat, ClusterPoliSEE). To capitalize best on already existing knowledge and lessons learned, Europe should also identify regions, which are innovation pioneers outside Europe. The support mechanisms, funding schemes etc. set up e.g. in Silicon Valley could be of high value for Europe boosting innovation by focussing on KET, emerging industries and grand societal challenges. In this case, the High Level Expert Group (including experts from outside Europe; see Cluster Policy Joint Action 8) – supported by financial and personal resources – can secure a big picture and give advice to policy makers on the outcomes of European and non-European projects and funding schemes initiated, to make their funding schemes more cost effective.

**Target groups:** Policy makers on European, national and regional level

### **Joint Action 8 | Setting up a High Level Expert Group on European Level**

To pool and streamline the above-mentioned joint actions and to support their implementation at European, national and regional level a High Level Expert Group should be set up whose scope and objective should be to share intelligence about cluster policies in view to further explore how to better assist Member States in supporting the development of:

- Internationalization activities of clusters and their SME
- Knowledge transfer to close the gaps within the global value-chain by means of international networking, trainings, funding schemes etc.
- New, better structured, developed and supported value-chains
- Exchange of good practices for new business models
- To identify and evaluate funding schemes and projects abroad and check their applicability for Europe (e.g. funding schemes in Silicon Valley)

**Target groups:** Policy makers at European level

# PROJECT & CONSORTIUM

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