



cloe
Clusters Linked over Europe

Cluster Management Guide – Guidelines for the Development and Management of Cluster Initiatives

Karlsruhe Germany
Linz Austria
Lyon France
Tartu Estonia
Wermland Sweden
Timisoara Romania
Kaliningrad Russia
Nottingham UK

www.clusterforum.org

Table of contents

Foreword	2
1. Executive summary	5
2. Preamble	5
2.1 Challenges for European industries in the face of global competition	6
2.2 Benefits of cluster initiatives	7
2.3 Cluster policy	7
3. Cluster management guide in overview	9
3.1 Development of cluster initiatives	9
3.2 Management of cluster initiatives – five fields of action	10
4. Development of cluster initiatives	11
4.1 Pre-analysis for background information – feasibility study	13
4.2 Preparation of framework and internal organisation	15
4.2.1 Strategic positioning within the region	15
4.2.2 Definition of objectives, tasks and activities	16
4.2.3 Definition of responsible body / legal entity	16
4.2.4 Establishment of a project team	17
4.2.5 Establishment of a cluster advisory board	17
4.2.6 Information and communication concept	18
4.3 Financing	18
4.4 Launching of cluster initiatives	19
5. Management of cluster initiatives – five fields of action	20
5.1 Information and communication	20
5.2 Training	22
5.3 Co-operation	23
5.4 Marketing and PR	24
5.5 Internationalisation	25
6. Benchmarking indicators for cluster initiatives	26
7. References	28
8. Appendix	29
8.1 Checklist for development and management of cluster initiatives	29
8.2 Description of cluster initiatives	32
8.3 List of cluster initiatives of partner regions and other international cluster initiatives	41
8.4 Benchmarking of cluster initiatives	43

1. Foreword

International networking – a formula for regional success

Cluster initiatives facilitate and accelerate innovations and then bring them to market maturity, thus ensuring the long-term, economic success of the companies involved. They represent an efficient instrument for the concentration of resources and funding, the achievement of critical dimensions and the guaranteeing of the dissemination of knowledge and expertise, which represent factors strengthening both locations and the economy on a sustained basis.

Therefore, it is especially important that clusters also establish international networking, and that they act as a bridgehead in the promotion of regional and cross-border cooperation.

Upper Austria began the successful implementation of a cluster-oriented innovation policy in 1998, and has ever since cooperated with other innovative regions. In particular, Upper Austria shows excellent progress in the areas of cluster formation and further development. As a result, our federal territorial initiative competence – a position which guarantees clear advantages for both business and industry.

This Cluster Management Guide is the first document to define the most important steps for the installation of a cluster initiative. The Guide shows how a cluster can be successfully established, financed and expanded. Best practice examples from the CLOE regions clarify this process further. In this way, Upper Austria has put its experience at the service of other regions and has thus made an important contribution to the success of the CLOE project.



Viktor Sigl
Upper Austrian Economics Secretary



CLOE – linking regions, creating the future

By initiating in 2004 the project „CLOE: Clusters linked over Europe“ (www.clusterforum.org), Karlsruhe created a network with the European regions of Lyon/France, Linz/Upper Austria, Wermland/Sweden, Tartu/Estonia, Timisoara/Romania and Kaliningrad/Russia to build the „European Network of Excellence for Cluster Experience, Management, Matching and Promotion“. The partners – mostly economic development agencies and chambers of industry and commerce – intend to establish closer links between their regions' highly developed sectors reinforcing their activities and services in the field of economic development. In this way, the regions can be marketed as locations for commerce and investment within Europe and beyond, for example in the USA or Asia, and they can promote themselves to particular industrial sectors.

Karlsruhe as the so-called Lead Partner and initiator of the project contributes to CLOE regional and supraregional networks such as the “Automotive Engineering Network Südwest” - AEN (www.aen-network.de), “Mobile Region Karlsruhe” (www.mobilerregionkarlsruhe.de), the “CyberForum” (www.cyberforum.de) and the nanotechnology network “Nanomat” (www.nanomat.de) that give companies in Karlsruhe and the Technology Region valuable impetus for innovation and bring together partners from research, science and industry.

This Cluster Management Guide reflects the experiences made by the CLOE partners in the field of cluster creation and development. It is the first guide on the creation and management of clusters that takes into account the different conditions prevailing in the participating countries. The CLOE partners are prepared to share their experiences with other regions thus taking up one of the main reasons for the creation of clusters: Small and medium-sized enterprises will have to tighten their co-operation to maintain their competitiveness. Only the co-operation between research agencies and companies will ensure the full exploitation of the potential that a region has to offer. For this purpose, the European partners of the CLOE network will establish the international contacts sought by the companies. This will not only lead to cross-

border collaboration but also help the clusters represented in the network to make themselves and their competence more noticeable world wide.

I am convinced that CLOE will have a lasting positive effect on the partners' economy and on their attraction as a business location and I appreciate the success that the project has enjoyed to date. In January 2006, for example, Nottingham joined the CLOE regions as an Associated Partner, a possibility that is also open to other regions with successful clusters. The co-operation between regions which, in their turn, will create international networks, will be the only way to ensure Europe's competitive strength in the future. Therefore this guide is also a small but important contribution to Europe's competitiveness.



Heinz Fenrich

Lord Mayor and President of TechnologieRegion Karlsruhe

2. Executive summary

Globalisation has a significant impact on the development of industries and regions and their competitiveness. This forces regional policy makers to reconsider their strategy and to develop new activities. One of these new activities is the development of cluster building processes and their integration into the regions' innovation processes and strategies.

Many publications (e.g. Michael Porter) discuss in detail academic and well defined approaches of the development, establishment and management of cluster processes.

The present document takes a step forward and offers - based on the experience of successful cluster initiatives - a practical handbook giving an overview of essential tasks which are to be undertaken or at least considered within the scope of cluster building processes and their management. This practical handbook is designed to help regional actors, cluster and project managers and their supporting staff to develop and manage cluster activities in a proper and successful way.

The cluster management guide was elaborated in co-operation with actors and cluster managers from the regions of Karlsruhe, Lyon, Linz, Wermland, Tartu, Timisoara, Nottingham and Kaliningrad.

CLOE "clusters linked over Europe" is a co-operation project between currently eight European regions set up with the aim of sharing experience, establishing close co-operations and learning from each other in the area of cluster management.

Cluster Companies in clusters of CLOE partner organisations operating within the same industry but in different regions can benefit from improved co-operation. CLOE is an effective information channel to find potential business and investment partners in eight fast developing cluster regions in Europe.

3. Preamble

During the 1990s, many countries of the European Union started to establish cluster-oriented measures to strengthen the industry's ability to innovate and increase national competitiveness. Within the scope of establishing innovation supporting instruments, building networks between industry, R&D-centres and academia plays a significant role and has a huge impact on the success of such activities.

Cluster initiatives are an adequate and effective instrument to concentrate resources and means in order to achieve a critical mass and to accelerate the transfer of knowledge and know-how. The initiation and co-ordination of cluster initiatives and networks has become

an important tool for regional governments to support and foster economic growth in high-tech as well as low-tech sectors.

3.1 Challenges for European industries in the face of global competition

Nowadays, regions and regional companies face the challenges provided by the global market. The competitiveness of a region is not determined by single companies, but more and more by the innovative activities of entire industries and branches. For this reason, regional competitiveness has become the central topic for the economic and technology policy of the European Union and its member states. The main objectives of these policies are:

Fostering innovation

The ability to innovate is crucial for the success of regions in general and industry in particular. Today, the enhancement of economic globalisation and the increasing use of information technologies put massive pressure on the acceleration of innovation processes.

Fostering co-operation

Co-operation means fostering collaboration between industry, with a special focus on small and medium-sized enterprises (SME's), research institutions and academia. Supporting cooperation projects increases the rate of innovation processes and the technology transfer from R&D-institutions and academia to industry.

Fostering internationalisation

Especially small and medium sized companies do not possess enough resources and know-how to enter new markets. Therefore, internationalisation has become an essential factor for companies and regions to succeed in the global competition.

An appropriate way to achieve these objectives is the development of cluster initiatives.

3.2 Benefits of cluster initiatives

The prospect of potential benefits from cluster initiatives for companies and regions encourages governments and other public actors to launch cluster promotion policies. In general, a well-developed concentration of related business promotes three important activities:

- Increased productivity (through specialised inputs, access to information, synergies, and access to public goods),
- Faster innovation (through cooperative research and more intense competition),
- New business formation (filling in niches and expanding the boundaries of the cluster map).

Cluster initiatives help regions govern their economic development and recruiting efforts. It also encourages communities to refocus their efforts on existing industries.

Strong domestic cluster initiatives also assist the regions in attracting foreign investments. As leading platforms for their industries, clusters are able to attract national and international key players. In fact, foreign-owned companies can enhance the leadership of the cluster and contribute to its upgrading.

3.3 Cluster policy

Types and contents of cluster policy vary considerably from country to country. As a rule, three types can be distinguished:

- A first type deals with the strengthening of 'triple helix' relationships, particularly between industry, research and government agencies, such as regional development agencies or science and technology agencies.
- A second type focuses rather on R&D co-operation between companies and between companies and research organisation.
- A third type concentrates on encouraging co-operation among companies, regardless whether these collaborations take place with R&D-institutions or are carried out either horizontally between competitors, or vertically along the value chain.

As there are several definitions used in connection with cluster initiatives, it is necessary to point out at this stage, that the present document is a practical guide for the development and management of cluster initiatives and is based on the following definition and differentiation:

Cluster Initiatives = organised regional sectorial networks among economic partners aiming at improving innovation performance and international competitiveness

= “tool for innovation policy”

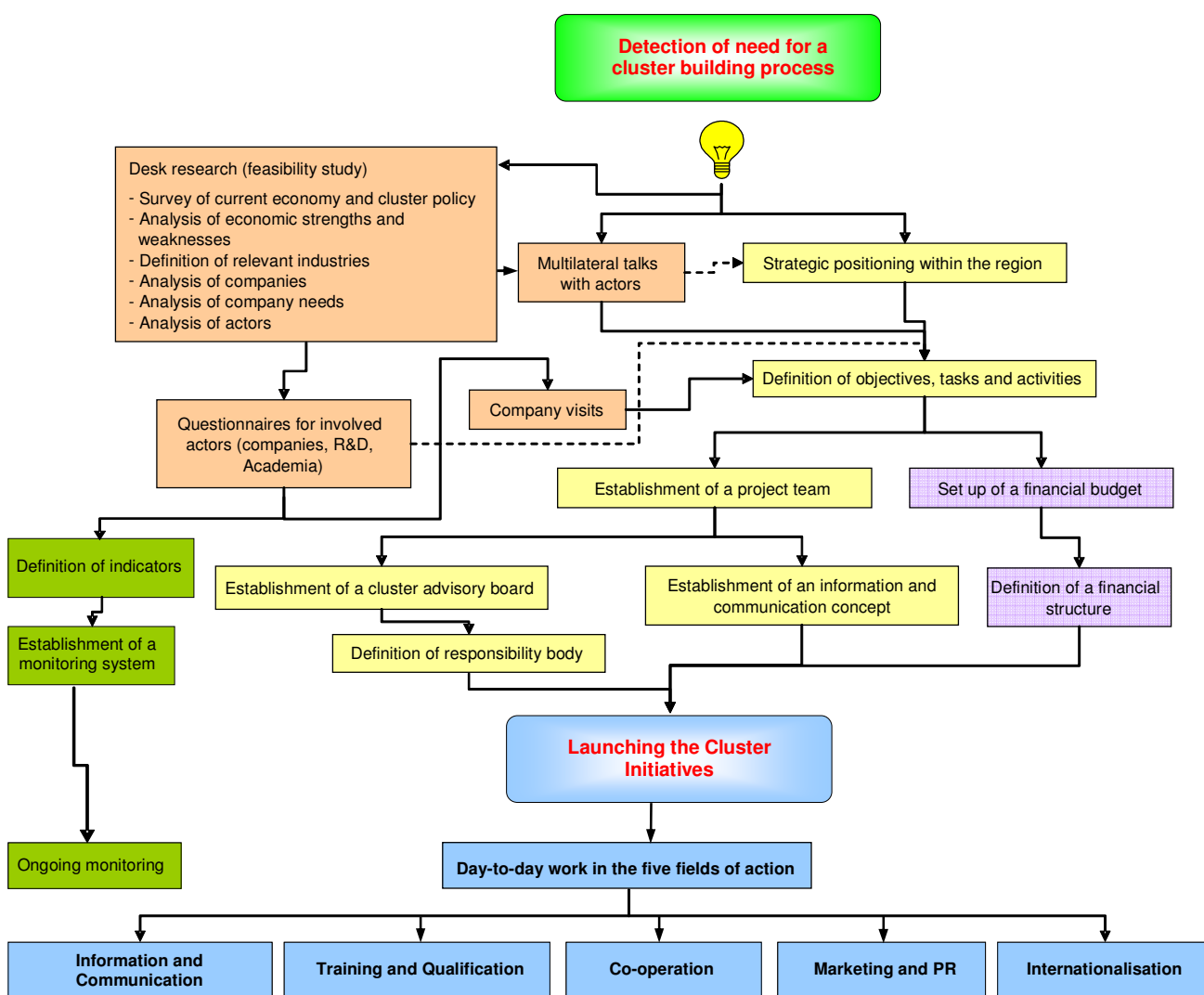
Cluster = vertically and horizontally related economic partners of a certain industrial sector in a defined region with international competitiveness

Cluster initiatives have become a central feature for improving the growth and competitiveness of clusters. They are an increasingly popular approach to develop and strengthen clusters.

4. Cluster management guide in overview

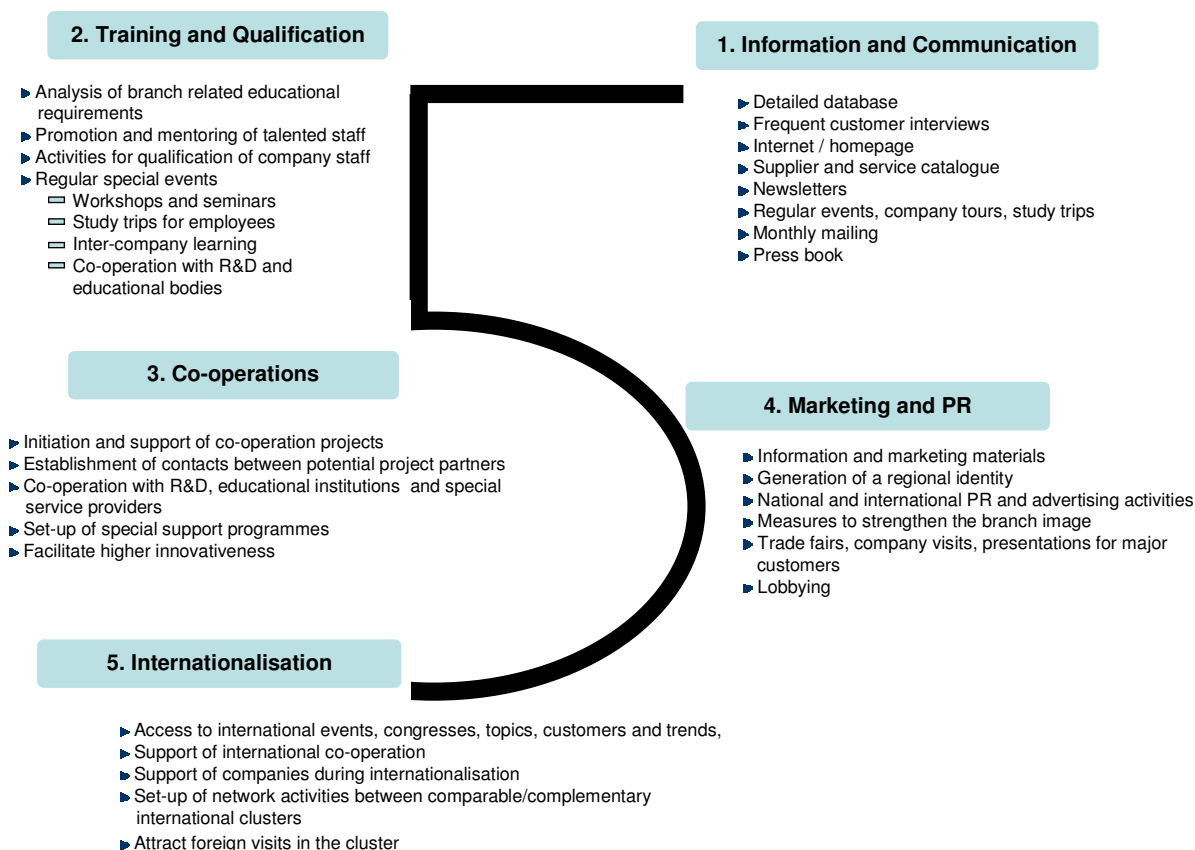
This section describes – with the help of some pictures and graphics - the main aspects for the development and management of cluster initiatives which are to be considered in order to achieve an effective initiative. Following activities are generally applicable to all regions. These steps are described more in detail in chapter 4 and 5.

4.1 Development of cluster initiatives



4.2 Management of cluster initiatives – five fields of action

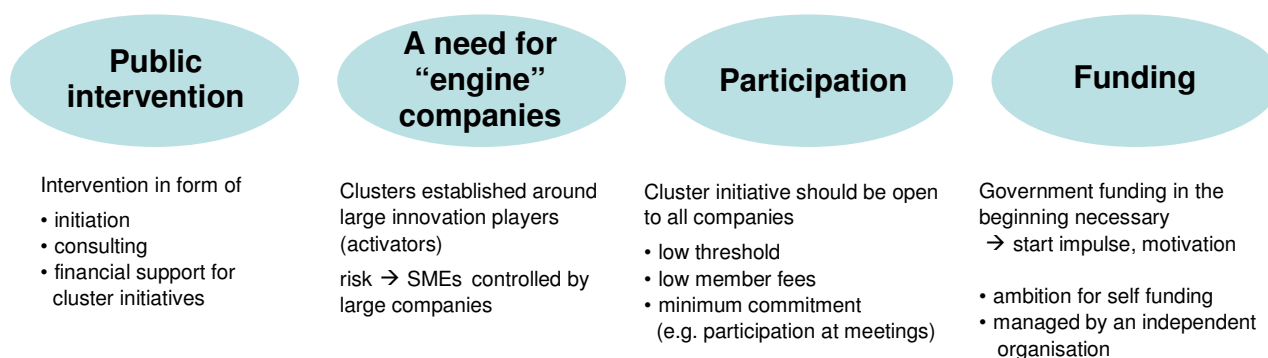
The main tasks for the management of cluster initiatives can be divided into the following five fields:



5. Development of cluster initiatives

A cluster initiative concept relies on some basic assumptions and ideologies which provide important “policy”-statements. Some basic assumptions of a cluster concept are described below.

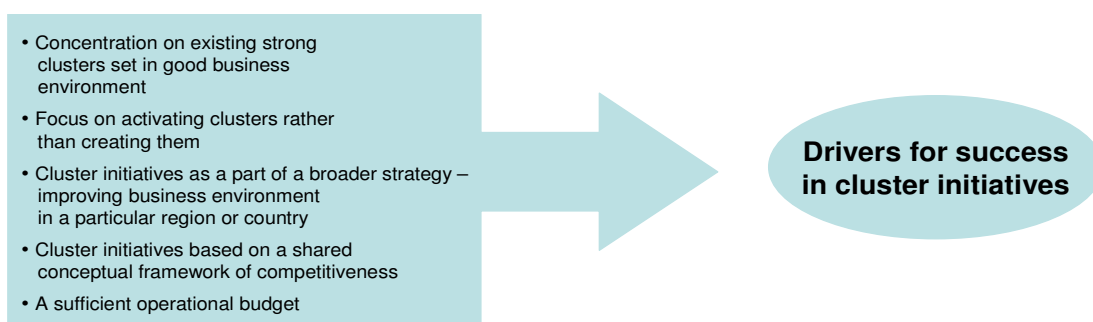
Assumptions of a cluster initiative concept

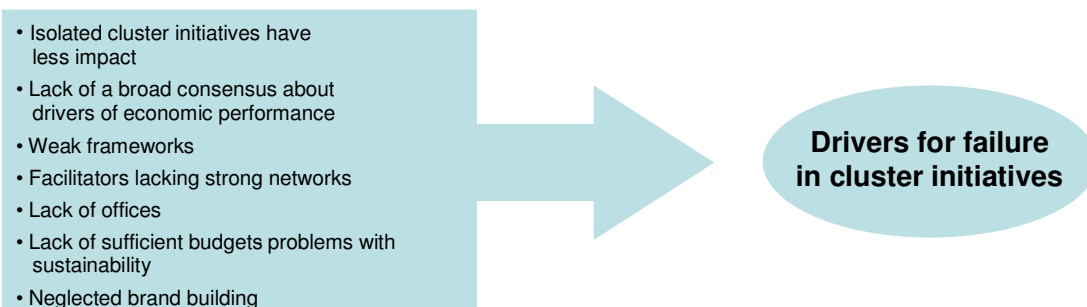


Cluster initiatives are usually initiated from industry leaders, government and academia. Usually, companies are the most influential participants in terms of setting up the initiative. Government is important in terms of financing and securing at least some level of organisational support.

The following charts give an overview of some selected drives for success and failure in the development and management of cluster initiatives.

Drivers for success and failure in cluster initiatives





Experience shows that a cluster initiative should comprise at least 30-50 members (companies and other actors) to achieve a critical mass. This limits the selection of cluster sectors.

The chart below represents the general phases of the development of cluster initiatives in a stylised form.



The set-up process of a cluster initiative varies substantially according to the purpose it is to fulfil and the circumstances under which the involved companies are supposed to co-operate. Nevertheless, the following tasks should be considered:

- Pre-analysis for background information – feasibility study
- Preparation of framework and internal organisation
- Financing
- Launching of the cluster initiative

5.1 Pre-analysis for background information – feasibility study

A fundamental survey of the region's economic and industrial structure - including a meta-analysis of existing studies - is necessary to provide a clear picture of its strengths and weaknesses and to determine where supporting measures would be most beneficial.

This survey for the feasibility study can be carried out in two steps:

- a) According to the above mentioned aspects a profound desk research should be performed to get a first overview. All information channels such as Internet, books, available statistics and existing documents provide a broad mapping on relevant industries.
- b) Due to the fact that some information can not be obtained from a desk research it is necessary to undertake additional actions:
 - Company visits
 - Multilateral talks with actors
 - Elaboration of questionnaires

Furthermore, the survey should comprise the following essential aspects:

- Survey of the economy and cluster policies currently in use

It is important to get to know the regional framework and the policies and general regulations currently in use. This is crucial to secure an efficient embedding of cluster initiative and not to risk the developing of inconsistent policies.

- Analysis of economic strengths and weaknesses

Geographical concentration has been central to the cluster initiative idea from the outset. The geographical proximity remaining at the core of the cluster concept is due to both hard and soft aspects.

The "hard aspects" associated with benefits deriving from companies located in certain areas are i.e.:

- The availability of specific natural resources or other unique local assets may contribute to co-location.
- Geographical proximity provides opportunities for lowering transaction costs especially in accessing and transferring knowledge.
- Economies of scale and scope may be optimised most effectively by a limited number of efficient-scale plants in a given geographical area.

- Specialisation of market supply with respect to labour, capital or technology sources may be facilitated within a specific area.
- The means for accessing and sharing information on market and technology change may become more effective within a given area.
- The interplay with local customers triggers learning processes and more sophisticated demand.

In addition to that, “soft aspects” are also very significant. Attractive conditions for working as well as for living may play an important role. Chambers of commerce, libraries, university campuses, sport arenas, logistic hubs, lunch restaurants, bars, cafés, festivals, etc., all have special characteristics associated with the interaction between the people using these facilities.

- Definition of relevant industries

The simplest way to define relevant industries and to make a competence audit is to gather detailed information on companies with regard to industry sector, location and economic data as well as consider where certain industries are concentrated along with their core competencies. This is to be achieved by means of questionnaires, up-to-date statistics and surveys.

- Analysis of companies, their strengths and value chains

The identification of strengths and weaknesses of companies is of great importance. Sensitive information –such as the number of companies forming a sector, their number of employees, the kind of research they carry out, etc. – and export quotas define the characteristics of a region and contribute to the formation of a critical mass. Experience shows that bigger groups should be favoured over the small ones.

- Analysis of company needs

An analysis of company needs including a value chain analysis has to be conducted with a focus on innovation. The analysis serves the purpose of forming the discussion base when defining the key activity areas and the detailed measures which should be supported within the cluster initiative.

The main tool for this analysis is usually a questionnaire sent to all companies identified in the initial study plus face-to-face interviews with a significant number of companies.

- Analysis of relevant R&D actors, universities, other actors

In order to achieve inner dynamics, there is a need for engaging numerous actors to reach a critical mass. Critical mass may serve as a “buffer” and makes a cluster initiative resistant to exogenous shocks or other types of pressure, including “losses” of companies, especially when they might be regarded as “key companies”. Otherwise the absence of critical mass can make a region vulnerable to the loss of specific resources and skills that form essential building blocks.

The following actors should be considered and their contribution analysed:

- Regions
- Policy makers
- Financial institutions
- Trade unions
- Industry associations
- Technology transfer organisations
- Trade associations
- R&D-centres
- Academia

The involvement of the whole value chain is critical for the success of a cluster initiative.

5.2 Preparation of framework and internal organisation

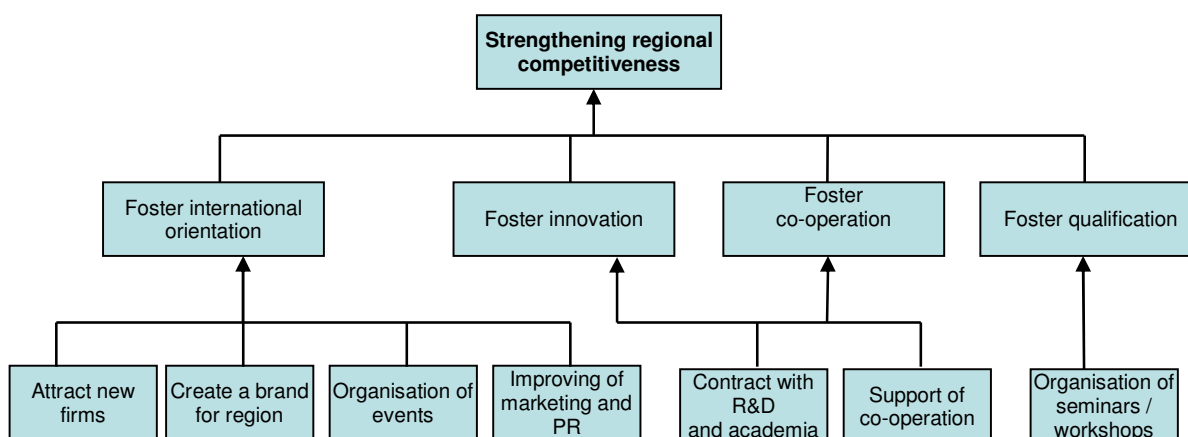
5.2.1 Strategic positioning within the region

The cluster initiative needs an ideological framework to exist and act within. The definition and correlation with other policies and especially the implementation in the regional strategy are to be clearly defined. For transparency reasons this should be communicated to all relevant actors within the region.

5.2.2 Definition of objectives, tasks and activities

In a first step every initiative is to define short-term, mid-term and long-term objectives. Within the second step the tasks and activities are to be defined necessary to reach these targets. Moreover, objectives have to be quantified so that a suitable monitoring can be operated. An appropriate possibility to visualise the strategic objectives is the “pyramid of objectives”. Thereby the objectives are hierarchically arranged so that several sub-objectives lead to a higher objective.

Objectives, tasks and activities



5.2.3 Definition of responsible body / legal entity

An essential point is the choice of the responsible body for cluster initiatives. This decision should be made by all responsible actors.

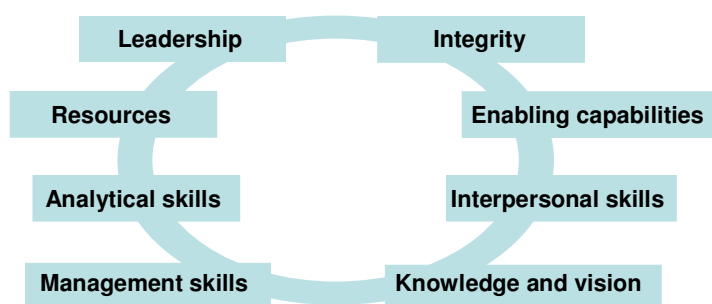
Case study

In Upper Austria there are currently three legal entities managing clusters and networks. The Clusterland Oberösterreich GmbH, a limited liability company consolidates six out of the eight cluster initiatives. Offering various synergy potentials it has proven as a successful organisation form. The other entities are the OÖ Energiesparverband (ESV) and the Upper Austrian Chamber of Commerce.

5.2.4 Establishment of a project team

The development and management of cluster initiatives require establishing a project team for the day-to-day activities. The size of a project team depends on the size of the cluster initiative but should comprise at least 3-5 people. The competences of the team must be considered carefully.

The staff members, especially cluster managers, should have industry-specific knowledge on the one hand and manager and process-oriented qualifications on the other hand. The staff members should provide the following skills:



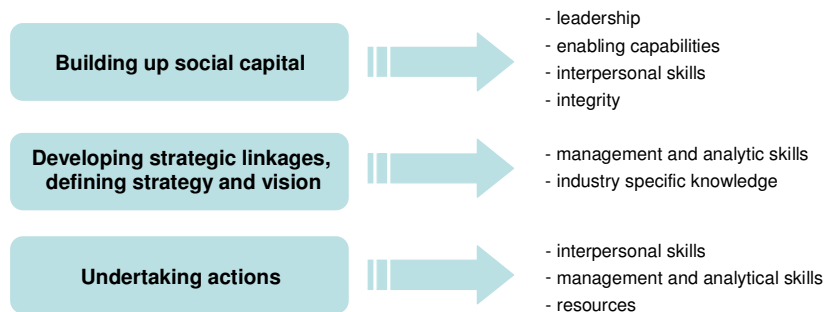
5.2.5 Establishment of a cluster advisory board

A cluster advisory board (10-12 members)

- Is an expert committee which consults the cluster initiative in matters of strategic positioning, controlling and monitoring of network activities.
- Supports the project team in the orientation of the cluster initiative to current and future markets and technology requirements of the cluster and region.
- Evaluates already completed activities in terms of acceptance as well as benefits for the partner companies and forms new activities.

The cluster advisory board receives the necessary documentation from the project team and should meet preferably four times a year.

The crucial competences of the different stages of a cluster initiative may be described as follows:



5.2.6 Information and communication concept

A smooth information infrastructure is necessary to keep the cluster working effectively. The information system often comprises a web page presenting general information about the cluster, a company catalogue giving short descriptions of the participating companies, a co-operation „stock exchange“ where companies can announce their proposals for co-operation projects and an agenda for meetings and short reports about current activities.

5.3 Financing

The responsible body should have sufficient budget to conduct significant projects without seeking separate funding. Well-funded cluster initiatives are more likely to pursue certain objectives, including spin-off promotion, technical training and infrastructure projects. They are better in promoting cluster growth and somewhat better in improving competitiveness.

Generally, there are three different types of financing:

- **Open-ended public funding**

Some groups share the opinion that permanent subsidisation can lead to inefficiency in cluster management and cluster initiatives. Interestingly, representatives of this argument are not only to be found in the corporate sector but in the institutional sector as well.

- **Temporary public funding**

Other groups are of the opinion that the cluster initiatives should be limited in time in order to prevent the possibility of permanent subsidisation and should also allow room for industry driven co-operation activities.

- **Public/private funding**

A cluster initiative can be financed with public money in combination with services against payment. In the course of time, the public funding will decrease and the contribution of the companies will rise.

Financing changes over time, with government seed money playing a lead role in the first phase. In later stages government money seems to decrease as a general rule, whereas industry seed money and memberships fees become more and more important. Often a cluster initiative is planned and (co-) funded by the regional authorities for a period of 18 months with the objective of extending the funding of further 18 months. After these three years, the cluster should be self sustainable and no more government funding should be needed.

Case study

The Upper Austrian Future Fund finances a large part of the local cluster initiatives, but the share of private financing is increasing constantly by individual contribution of partner companies. This contribution comprises a promotion fee of EUR 258 for micro companies, EUR 516 for SMEs and EUR 1.032 for big companies, participation fee for events and other service charges. In the medium run until 2010, all Cluster initiatives aim at a self-financing share of 75%.

5.4 Launching of cluster initiatives

How to launch a cluster should be decided according to the cluster-specific situation. It is generally sensible that the cluster activities are started soon after the launch event. This event should be organised very carefully to avoid that participating companies loose their interest in the initiative.

In order to limit the risk of a launch failure, a self-confident and innovation-friendly group should be formed in the starting phase with the aim of creating stability within the cluster. This core group will also help the companies define their attitude towards the cluster. Involving in the cluster a person with a broad network would represent a further advantage. Approximately six to nine months after launching the cluster initiative, first concrete and visible projects should be identified to demonstrate the resulting benefits .

6. Management of cluster initiatives – five fields of action

The cluster team is primarily responsible for the efficiency of the cluster initiative. The cluster management and the team members support the initiative in their daily work. As this is a cumulative process, the overall performance of the cluster initiative is considerably influenced by the cluster management and the cluster team.

The main tasks for the management of cluster initiative can be divided into five fields of actions.

6.1 Information and communication

As already described in chapter 4.2.6 the establishment of an information and communication system is essential for the success of cluster initiatives. All members as well as non participating companies should be informed about the cluster initiative itself, its members, the current activities and targets achieved. For this purpose, the following communication channels should be used:

- ***Development of a communication platform and Jour-Fixe***

For exchanging information, experience and knowledge, a communication platform should be established. The platform should be animated by means of regular meetings and an internal forum dedicated to the partners.

- ***Hold a Jour-Fixe***

Participants should be operative employees of the cluster initiative and representatives of academia and industry. In the beginning, the meetings should take place every 3-4 weeks which will be extended to 3-4 months once the cluster initiative runs successfully.

- ***Regular company visits***

Cluster managers should organise 5-10 visits per month which should be documented by a visit report. The reports should give an overview of the activities and needs of a company. This information may be an important basis for the generation of co-operation projects.

▪ ***Regular events***

For the success of a cluster initiative it is essential to organise regular events. These events aim at promoting cluster growth and establishing an exchange with other clusters:

- Workshops
- Expert round tables
- Specialist events
- Fairs
- Cluster days

▪ ***Newsletter and monthly branch and network news updates***

All participants should be kept informed about relevant news regarding the cluster initiative and branches. This could be achieved by means of a monthly newsletter in an informal email sent out by the project team.

Newsletters are usually elaborated quarterly and available in printed and electronic format.

▪ ***Cluster data base / supplier catalogue / industry information***

The establishment of a cluster data base is very important to efficiently administrate the partner and cluster initiative information. The database should contain at least general information on the partners (e.g. address, turnover, number of employees) and information of service type.

▪ ***Homepage***

The aim of the homepage is to inform about content, members and activities within the cluster initiative. The homepage should comprise at least an informative part (general information about the cluster initiative) and a tool for searching partners.

6.2 Training

Human resources represent an essential key factor for the success of companies. Therefore, a successful cluster initiative considers programmes for advanced vocational training and should initiate and support a range of educational measures to improve competency among the employees of the member firms. Apart from catalysing inter-firm networks and university-industry linkages, cluster processes may strengthen the incentives for SMEs to upgrade their internal competencies.

The educational measures are realised in the form of:

- Advanced vocational training sessions
- Workshops and seminars
- Study trips for employees
- Inter company learning

Case study

The triggering factor in the development of Tartu Software Cluster Initiative was the fact that shortage of qualified personnel was becoming the biggest obstacle in the growth and development of the cluster. Each of the interviewed companies indicated the lack of appropriate training and education of the software developers as challenge number one. They all agreed that creating appropriate training programmes would on the long run be much more efficient than trying to buy over personnel from each other. Therefore a joint training programme tailored for software developers was drawn up by the University of Tartu, Tartu Vocational Training Centre, Tartu City and Tartu Science Park containing the short, medium and long term measures to provide the necessary education and thus allow the further growth of the cluster.

6.3 Co-operation

Since competitiveness of regions is not determined by single companies, but more and more by the innovation ability of entire industries and branches, co-operations are essential to improve this ability. With the help of co-operation projects, synergy potentials can be exploited and thereby not only single companies are strengthened but also the entire economic structure in a crucial and sustainable way.

Target group companies often have high interest in co-operation projects with other firms or with R&D institutions. An important area of activity for the cluster initiative is therefore the initiation, development and support of co-operation projects. These kinds of projects can deal with the following areas:

- R&D
- Production
- Marketing
- Logistics
- Qualification
- Organisation
- Information Technology
- Internationalisation

▪ ***Initiation and support of co-operation projects***

The cluster initiative should initiate, foster and support co-operation among companies, universities as well as R&D-institutions.

▪ ***Co-operation with R&D and educational institutions and special service providers***

To secure high innovative projects, it is important to involve R&D and educational institutions and special service providers.

▪ **Set-up of special supporting schemes for co-operation projects**

It is essential to set up an appropriate supporting framework to attract companies for co-operation. The guidelines for supporting programmes for the allocation of grants should be elaborated in a customer-friendly way.

▪ ***Co-operation support***

The establishment of an internal contact agency, partner agency for co-operation projects and the development of a monitoring system are very useful.

Case study

During the past seven years the Upper Austrian clusters initiated and realised 306 products, processes and market innovations through cluster projects with 1.177 involved companies. This contributes to a sustainable strengthening of the regional economic competitiveness. The co-operation projects were supported with 14.31 million Euro initiating a project volume of 60.70 million Euro.

6.4 Marketing and PR

Marketing and PR strengthen the involvement of the existing members and attract new companies or research organisations to join the cluster. These activities should therefore be carried out on a regular basis. They can include national and international lobbying for the specific sector and comprise the following tasks:

- Generation of a regional identity
- Creation of information and marketing materials, presentations and information brochures
- National and international PR by means of commercials, advertisements/articles in trade journals
- Measures to strengthen the branch image
- Trade fairs, company visits, presentations for major customers
- Lobbying

6.5 Internationalisation

The elimination of trade barriers and the strengthening of transport and communication systems, along with the harmonisation of market regulations offer greatly improved conditions of resource flows and enhanced specialisation of value chains across national borders. For industry as well as for regions it is nowadays essential to open new markets and to find and attract new partners for co-operation. Therefore, a cluster initiative should support its members during internationalisation activities. The cluster initiative should also be open for further international expansion. Following activities have to be considered:

- ***Access to international events, topics and trends***

A cluster initiative should be open to new trends and topics. Participation in international events is essential.

- ***Participation in international projects***

It is important that partners of the cluster initiative participate in international projects in order to increase their competitiveness by means of these international activities.

- ***Set-up of network activities between different clusters***

To sustain the competitiveness and highly innovative character of a cluster initiative, it is important to co-operate with other cluster initiatives in other regions. This can be done either through study trips or through co-operations within EU-projects.

Case study

A good example how cluster initiatives work together and provide additional advantages for their cluster-partner-companies are the industry specific workshops in the CLOE-project. Cluster-initiatives organise events together focussing on a specific topic within the cluster. Experts are invited to talk about recent research or best practice in this area. These interesting novelties and experiences attract the cluster-partner-companies from different regions to join the event, get in contact with the scientist, meet representatives of other companies or just get information how the market will develop in the future.

7. Benchmarking indicators for cluster initiatives

In order to carry out the evaluation of a cluster initiative, measurable indicators should be determined in advance. These indicators secure the evaluation quality and can be used as benchmarks for the comparison with other cluster initiatives.

The following indicators should be determined for every cluster initiative:

Key figures

Number of partner companies in the cluster initiative

Cumulative turnover of partner companies of cluster initiative

Cumulative number of employees of partner companies in the cluster initiative

Qualification

Number of organised events within cluster initiative

Number of participants in these events

Co-operation projects

Number of co-operation projects in the cluster initiative

Number of companies participating in these co-operation projects in the cluster initiative

Leverage of cluster initiative (grant compared to investment costs)

Further indicators can be:

- Rate of SMEs in cluster initiative
- Number of company visits within cluster initiative
- Number of involved actors/institution in cluster initiative
- Rate of public funding of cooperation projects in cluster initiative
- Rate of public funding in cluster initiative
- Number of customer satisfaction analysis carried out per year within cluster initiative

Based on the records, the quality indicators should be monitored regularly. At least once a year a whole cluster initiative should be evaluated. This is important particularly with regard to the achievement of the objectives and the evaluation of the initiative's success.

The monitoring should be carried out with a questionnaire to be filled out by the partner company and sent back to the cluster manager office. The monitoring process should be documented and regularly forwarded to the partners of the cluster initiative.

8. References

Andersson T., Schwaag Serger S., Sörvik J., Wise Hansson E., (2004): The Cluster Policy White Book. IKDE, Malmö 2004

Clusterland Oberösterreich (2006): Clusterland Upper Austria – Innovation through Cooperation. URL: <http://www.clusterland.at/>, download 17.01.2006

European Commission (2002): Regional Clusters in Europe - Observatory of European SMEs, No. 3, Belgium 2002

European Commission (2003): Final Report of the Expert Group on Enterprise Clusters and Networks, Brussels 2002

European Commission (2003): Trend Chart on Innovation. URL: <http://www.innovating-regions.org/network/regionalstrat/chart.cfm>, download 05.10.2005

Ketels C., (2003): The Development of the cluster concept – present experiences and further developments, URL: http://www.isc.hbs.edu/pdf/Frontiers_of_Cluster_Research_2003.11.23.pdf, download 20.10.2005

OECD (2001): Innovative Clusters – Drivers of National Innovation Systems. OECD Publications, OECD 2001

Ohler F., (2001): Evaluierung der oberösterreichischen Clusterinitiativen. Technopolis Forschungs- und Beratungsgesellschaft mbH, Wien 2001

Schneider F., Holzberger M., (2003): Volkswirtschaftliche Analyse ausgewählter Maßnahmen der oberösterreichischen Standort- und Technologiepolitik, Linz 2003

Sölvell Ö, Lindqvist G., Ketels C., (2003): The Cluster Initiative Greenbook. Bromma tryck AB, Stockholm 2003

9. Appendix

9.1 Checklist for development and management of cluster initiatives

Following checklist summaries all necessary steps that have to be undertaken to develop and manage successful cluster initiatives.

Development of cluster initiatives

Fullfilled

- Execution of a desk research / feasibility study
- Survey of the economy and cluster policies currently in use
- Analysis of economic strengths and weaknesses
- Definition of relevant industries
- Analysis of companies, their strengths and value chains
- Analysis of the company needs
- Analysis of relevant R&D actors, universities, other actors

- Multilateral talks with actors
- Strategic positioning within the region
- Definition of objectives, tasks and activities
- Definition of responsible body / legal entity
- Establishing of a project team
- Information and communication concept
- Establishment of a cluster advisory board
- Financing
- Launching of the cluster initiative

Management of cluster initiative

Status

Information and communication

- Development of a communication platform and Jour Fixe
- Regular company visits
- Regular events (workshops, expert round tables, specialist events, fairs cluster days)
- Newsletter and monthly branch and network news update
- Cluster data base / supplier catalogue / industry information
- Homepage

Staff training (employees of cluster companies and project team)

- Advanced vocational training sessions
- Workshops and seminars
- Study trips for employees
- Inter company learning

Co-operation

- Initiation and support of co-operation projects
- Co-operation with R&D and educational institutions and special service providers
- Set-up of special supporting schemes for co-operation projects
- Co-operation support

Status

Marketing and PR

- Generation of a regional identity
- Creation of information and marketing materials, presentations and information brochures
- National and international PR through commercials, advertisements/articles in trade journals
- Measures to strengthen the branch image
- Trade fairs, company visits, presentations at major costumers
- Lobbying

Internationalisation

- Access to international events, topics and trends
- Participation in international projects
- Set-up of network activities between different clusters

9.2 Description of cluster initiatives

Cluster initiatives in Upper Austria

Cluster policy in Upper Austria

Since 1998 the strategy paper “Strategisches Programm OÖ 2000+” based on a consequent cluster-oriented economy and technology policy is being implemented with the aim of strengthening regional competitiveness. The status quo of today’s cluster policy in Upper Austria is the result of the co-occurrence of various factors, and in particular:

- Foundation of TMG (Technology and Marketing company), its shareholder structure and the specific financing structure

An important element of the Upper Austrian technology and location policy was the institutional establishment of TMG. TMG is a service-oriented non-profit organisation which is responsible for the success of the clusters. The wide shareholder structure of TMG comprises all important public institutions, representation of interests and infrastructure bodies.

Financing

The Upper Austrian Future Fund finances a large part of the cluster initiatives, though the share of private financing is constantly increasing due to individual contributions of partner companies. This contribution comprises a promotion fee of EUR 258 for micro companies, EUR 516 for SMEs and EUR 1.032 for big companies, participation fee for events and other service charges. In the medium run all cluster initiatives aim at a self-financing share of 75%, which can be considered as the business benefit. The remaining 25% correspond to the economic effects which indirectly affects also non participating companies.









Development and Management structure

The successful cluster initiatives in Upper Austria started in 1998 with the Automobile Cluster within the framework of the Strategy Programme "Upper Austria 2000+". TMG commissioned a consulting company to set up an Automobile Cluster in order to avoid risks and shorten the establishment period. As the project was started, 25 prominent companies were invited and a programme for the first year was elaborated for them; within the following 7 months all other relevant companies joined the cluster.

The immediate break-through with the target group doubtlessly proved the success of the initiative and contributed to the self-confidence of the Upper Austrian cluster policy.

Meanwhile Upper Austria provides a strong network of cluster initiatives for its companies, especially SMEs.

Upper Austrian Cluster Initiatives in figures

<i>November 1, 2005</i>									Σ
Key cluster figures									
Partner companies	265	80	372	196	140	176	150	196	1.575
Work force (combined)	96.520	26.996	54.013	17.800	2.710	20.050	26.590	22.094	266.773
Sales (combined/€ bn)	18,92	9,66	10,91	2,00	0,39	2,28	3,32	4,20	51,68
Training									
Number of events	144	15	93	111	80	155	59	44	701
Number of participants	7.524	281	5.452	4.915	6.518	2.904	1.911	1.425	30.930
Co-operation projects									
Completed projects	54	10	70	57	48	40	15	12	306
Partners involved	220	33	300	254	131	150	50	39	1.177
Funding (Mio €)									14,31
Project volume (Mio €)	Ratio 1 : 4								60,70
Investment Volume	Ratio 1 : 6								85,86

Hence, in the past seven years, 306 products, processes and market innovations were initiated and realised through cluster projects with 1.177 involved companies. This corresponds to a share of 74% of all cluster partners and shows that a complete new co-operation and innovation culture in Upper Austria has been developed. This contributes to a sustainable strengthening of the competitiveness of the regional economy. The co-operation projects were supported with 14.31 million Euro which initiated a project volume of 60.70 million Euro. This corresponds to a factor of 1:4. According to the data of the involved companies, further investments (machines, materials, human resources, etc.) were activated, which elevate the factor to 1:6. The whole volume of investment (innovation) induced in the past five years was 85.86 million Euros.

In order to continue the pursuit of this successful approach, the Upper Austrian government commissioned the preparation of the "Innovative Upper Austria 2010" strategic programme, intended to be a guideline for a technology policy for 2005 to 2010. This is based on the resolutions of the Upper Austrian government, and takes into account not only the evaluation results but also the changes in the Structural Funds forthcoming in the EU 2007–2013 financial perspective.

The new programme "Innovative Upper Austria 2010" was prepared with the extensive assistance of 250 experts from business, research and related bodies, and in close co-operation

with the Upper Austrian Research and Technology Council. Their conclusions take the form of five topic areas, 18 strategies and 43 measures.

In line with national and European innovation strategies, the content of the programme is comprised of the five topic areas of R&D, professional qualifications, networks, the economic and technology location Upper Austria and EU networking. The future goal of the programme, namely an increase in competitiveness, is obvious and like its forerunner, the current "Innovative Upper Austria 2010" demonstrates not only a strict orientation toward feasibility, but also includes vision, mission statements and implementation strategies.

An objective of the Strategic Programme "Upper Austria 2010" is the continuation of the eight cluster initiatives and the four thematic networks, with the general topic to develop the economy in Upper Austria. These clusters and networks are joined together in the Upper Austrian Clusterland GmbH.

www.clusterland.at

www.tmg.at

www.ooe2010.at

Cluster initiatives in Karlsruhe

The Automotive Engineering Network South-West (AEN, since 2004, 64 members from Germany and France) unites enterprises from the south-west of Germany operating as suppliers, outfitter or system partners of the automotive industry. As the focus of the cluster is engineering, the cluster concentrates on the service side of the automotive branch. Engineering, one of the most important competencies in the automotive production, will always be a part in the value chain - even if production sites might be transferred to other countries.

The cluster initiative was started in December 2004 and is run by the Economic Development Department without any extra funding from the State. Although Karlsruhe is not famous for automotive production, some of the Daimler-Chrysler production carried out in Alsace also affects this area. For this reason many different delivery industries of this sector are located here. The cluster currently counts 64 members - among which are research centres, SMEs and logistic centres. As the Karlsruhe region borders on France, some of the members are located abroad. Therefore, this initiative can be regarded as one of the rare bi-national regional clusters.

www.ae-network.de

Cyberforum (since 1997, 640 members, private initiative) is the oldest and biggest cluster in Karlsruhe. Founded in 1997, run by a private initiative and supported by the Economic Development Karlsruhe, it counts nowadays 640 members from over 500 companies in the TIMES-branches (telecommunication, information technologies, media, entertainment and security). The cluster provides a broad service choice, i.e. monthly meetings with lectures and lessons about selected topics are followed by an informal come-together. This so-called "marketplace" enables the cluster members to meet new contacts, find new business partners and is very well established in the Region. Special services are also offered to start-ups and to the field of job-training and apprenticeship. Currently, Cyberforum co-ordinates the training of more than 120 persons.

www.cyberforum.de

MobileRegionKarlsruhe (since 2005, 40 members, industry driven network, mobile solutions) is a marketplace for the various mobile solutions from the Karlsruhe region. It promotes the transfer to a broader public of new developments made by innovative enterprises. The mobile region Karlsruhe is known in Germany as a prominent cluster for mobile solutions. The initiative is completely industry-driven and shows that the over 40 regional companies which are organised in this special IT-cluster have understood the advantages of co-operation within a region.

The latest development in Karlsruhe is the linking of the two clusters Cyberforum and MobileRegion. The MobileRegion will become a part of the Cyberforum, representing a **special interest group** within the cluster. This new structure creates benefits such as the elimination of redundancies and an increased concentration on the daily work.

www.mobileskarlsruhe.de

The NanoMat network (German wide nanotechnology network from research and industry) comprises three research centres of the Helmholtz Association of German Research Centres, ten universities with natural and engineering science departments, one Max Planck Institute, one Institute of the Gottfried Wilhelm Leibniz Science Association, three Fraunhofer Institutes, one Institute of the Polish Academy of Science, the DECHEMA and four major companies all over Germany. A close co-operation in various research programmes within the NanoMat network enables the partners to cross-link their competences so that the projects can be carried out in a continuous and interdisciplinary way from the preliminary research stage to the transformation into economically viable products. The NanoMat network has a strong research background and was originally founded with support of the Federal Government. The Economic Development Department, the Steinbeis-Europazentrum and NanoMat initiated the regular meeting of SME and research institutes at a regional level in the so-called NanoForum Karlsruhe. On the one hand, this forum aims at informing the participants about the latest developments in the field of research and enabling the companies to find out about future applications for their products or production lines. On the other hand, the scientists are confronted with practical problems occurring in the companies.

www.nanomat.de

Cluster initiatives in Tartu Region

Tartu Software Cluster

Background

The Tartu Software Cluster Initiative was developed as a result of the Tartu Regional Innovation Strategy project which identified wood, metal, information technology and biotechnology to be the key development areas of Tartu region. Aim of this cluster initiative is to strengthen the competitiveness of Tartu Software companies through joint cooperation activities also involving universities, vocational education institutions, local governments and business support structures such as Tartu Science Park.

Cluster Dynamics

First Software development companies were set up in Tartu in mid 90s, mostly by persons who had been involved in research activities of the University of Tartu. The initial growth was quite slow and by the year 2000 the estimated number of people working in software development was only 150. However, since the beginning of the new Millennium the situation at the Tartu Software cluster changed. Many new companies were created and the existing ones started growing faster. Currently, the Tartu Software Cluster includes the biggest software developing companies in Estonia such as Playtech and Webmedia both employing already about 200 persons. Today, 30 Software developing companies are in the cluster and the total number of persons directly employed by the software companies is expected to exceed 1000 during 2006. The cluster growth has also reflected in the rapid turnover and profits increase. The main markets of the cluster are situated outside of Estonia and include both strong European markets and global markets as the booming United States.

Cluster Initiative Focus

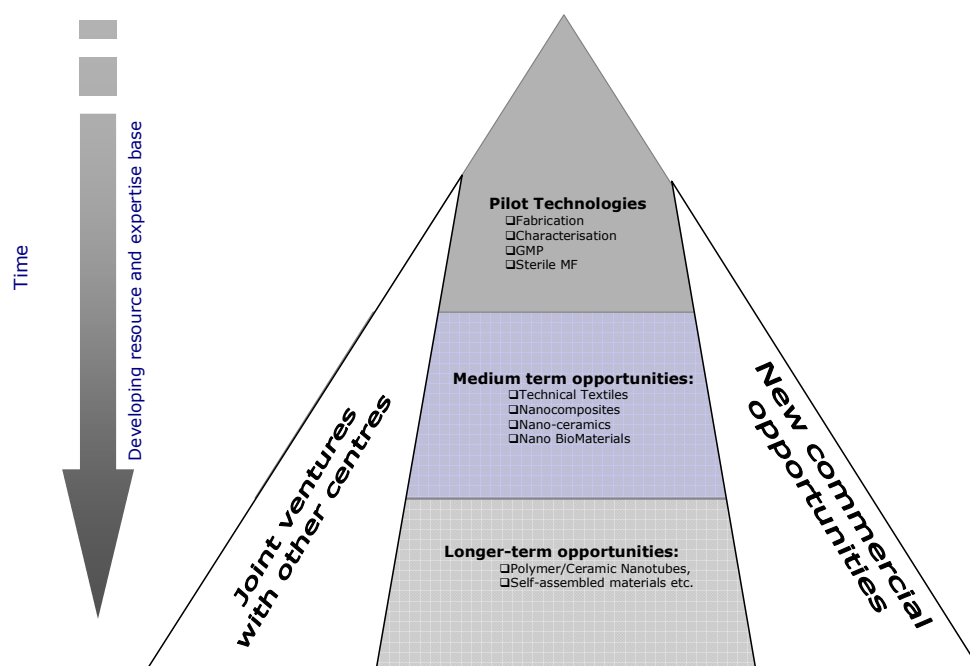
The Tartu Software Cluster Initiative is currently focusing on 2 main themes. Firstly, developing the human capital in all levels starting with high schools and vocational education establishments up to universities and graduate studies as the lack of qualified personnel is the main hindrance for the further growth of the cluster. Secondly, as companies are growing fast, there is already shortage of suitable premises in which companies can expand. Therefore, a Public Private Partnership agreement with the aim of developing a real estate project under the name of "Tartu Software Tower" is currently being discussed intensively within this cluster initiative.

Cluster initiatives in Nottingham

eminate is a ground-breaking initiative aimed at providing open access for industry to a suite of state-of-the-art fabrication and characterisation equipment in the heart of the UK. Located at BioCity, Nottingham's bioscience incubation centre, eminate will focus on the growth, synthesis and evaluation of nanostructured materials, and is set to revolutionise and revitalise areas of traditional industrial strength across many sectors.

The expertise and techniques available through eminate will bring significant benefits to the local engineering (including Aerospace, Automotive and Energy) and healthcare (including pharmaceuticals, food, technical textiles and medical devices) sectors. A key objective will be to open up new business opportunities through the active facilitation of cross-disciplinary technology transfer between these sectors.

Technologies:



- **Pilot technologies:** addressing the immediate processing and materials needs of industry.
 - Nanoparticulate synthesis/processing: for the controlled production, encapsulation and functionalisation of micro- and nano-scale particles for applications including drug delivery, food formulation, catalysis, etc.
 - Coatings Facility: for the exploitation of the benefits of nanostructured coatings in improving resistance properties, bio-compatibility and anti-microbial activity.

- Twin Screw Extrusion Facility: advanced extrusion and encapsulation techniques for the production of nanocomposites (e.g. polymer/ceramic) to enhance structural properties.
- Supercritical Fluid Plant: for the application of advanced solvent and precipitation techniques to produce metal, ceramic and polymer nanoparticles and nanostructured materials with enhanced properties.

▪ **Medium/Long-term Technologies**

The expertise of eminent and its partner institutions will also be employed to nurture a pipeline of novel nanomaterials and material architectures of medium and long-term benefit to industry. Specialist pilot and manufacturing facilities will be developed in partnership with industry, based on the technologies showing most promising for commercial application. Examples include:

- Polymer/Ceramic/Nanotube Nanocomposites
- Self-Assembled Materials
- Magnetic Nanoparticles and Biomedical Imaging Contrast Agents
- Technical Textiles
- Lithographic Templating Technologies (e.g. sensors applications)
- Biodegradable Scaffold Materials
- Nanoceramic Processing (Powder Reaction Injection Moulding and Extrusion)

▪ **Characterisation**

Co-located with the production facilities will be a suite of dedicated characterisation equipment required for research, testing and prototyping. More specialised evaluation facilities will be available via the consortium partners or through collaboration with other centres within a worldwide network.

▪ **Services**

Focused around the needs of industry for short-term, applications-oriented development and assessment of nanotechnology approaches to improving products and processes:

- Collaborative Research
- Feasibility studies
- Contract analysis
- Rental of equipment, space and facilities
- Training/Dissemination
- Applications Engineering Consultancy

www.eminate.co.uk

Cluster initiatives in Wermland

The Paper Province is an economic association that coordinates and increases co-operation between participants in the pulp and paper technology business in Wermland, northern Dalsland and Närke in central Sweden. The main focus is on packaging technology. The proximity to raw materials, modern infrastructure and the central position in northern Europe make of this region a global leader in this sector of industry.

The cluster comprises around 250 companies with approx. 12.500 employees, which makes it one of the largest clusters in the pulp and paper technology.

The formation of The Paper Province network in 1999 was a way to gather local businesses active in the pulp and paper industry, along with customers, machinery suppliers, consultants and other service providers. The aim was to help promote the region and support its development through the reliable provision of competencies.

One of the main reasons for the region's pulp, paper and packaging industry to be so strong is the investment of about 1 Bln SEK every year for the past ten years, in both staff and technology, in order to remain competitive. The industry also makes a major commitment to research and development and to quality and service.

The Paper Province includes many big names and well-known international companies such as Tetra Pak, Stora Enso, Billerud, Metso Paper, Kvaerner Pulping, Jaakko Pöyry, etc. There are also smaller businesses with extremely professional staff offering services and products to the major players, supplying everything from chemicals, machinery and mechanical components to high-tech systems.

The closeness to the Karlstad University as well as its influence provide many advantages for the region. The Paper Province uses its strong ties to the university to identify and encourage new research and development projects.

A large part of The Paper Province's activities is focused on networking, co-ordinating and developing co-operation between the participants in the pulp and paper technology cluster in Wermland, northern Dalsland and Närke.

Activities also include marketing, competence procurement, project development and regional growth in partnerships with schools, the university and regional, national and international authorities.

www.paperprovince.com

9.3 List of cluster initiatives of partner regions and other international cluster initiatives

Automotive Clusters:

www.ae-network.de

www.automobil-cluster.at

www.mechatronik-cluster.at

www.cdt.at

www.automotive-cluster.fr

www.lyon.cci.fr

www.acstyria.at

Nanotechnology Clusters:

www.nanomat.de

www.minatec.com

www.eminate.co.uk

Plastics Cluster:

www.kunststoff-cluster.at

Bio Cluster:

www.bio-cluster.com

Textile Cluster:

www.newtex-cluster.com

Wood Cluster:

www.m-h-c.at

Energy Clusters:

www.oec.at

www.eco-energies.net

Food Cluster:

www.lebensmittel-cluster.at

Health Cluster:

www.gesundheits-cluster.at

ICT Clusters:

www.compare.se

www.mobileregionkarlsruhe.de

www.cyberforum.de

www.ka-it-si.de

www.lyongame.com

Packaging Industry Clusters:

www.paperprovince.com

www.packagingarena.se

Mechatronics Clusters:

www.mechatronik-cluster.at

www.iucwermland.se

Thematic Networks:

www.rio-ooe.at

www.vnl.at

www.netzwerk-hr.at

www.netzwerk-design.at

www.mobileskarlsruhe.de

Others:

www.uvan.net

9.4 Benchmarking of cluster initiatives

Name of cluster initiative: **Automotive Cluster**

Type of financing: public and private funding

Date of foundation: 1998

Short description: established through the TMG, Automobil Cluster is a service-oriented non-profit organisation with a wide shareholder structure that comprises all important public institutions. Successful focusing of the cluster initiative at the current needs of the regional industry was secured through the support of a cluster advisory board, an expert committee with members of regional industry.

Country: Austria, Upper Austria

Indicators' last elevation: November 2005

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	265	4
Cumulative turnover of partner companies of cluster initiative	18,92 Mrd. €	4
Cumulative number of employees of partner companies in the cluster initiative	95.520	4
Number of organized events within cluster initiative	144	4
Number of participants in these events	7.524	4
Number of co-operation projects in the cluster initiative	54	4

Indicator	Number	Evaluation per year
Number of companies participating in these co-operation projects in the cluster initiative	220	4
Leverage of cluster initiative (grant compared to investment costs)	1:6	4
Rate of SME of cluster initiative	68%	4
Number of company visits per year within cluster initiative	200	4
Number of involved actors/institution in cluster initiative	14	4
Rate of public funding of cooperation projects in cluster initiative	~25%	4
Rate of public funding of cluster initiative	~63%	4
Customer satisfaction analysis per year within cluster initiative	~20	4

Name of cluster initiative: **Health Cluster**

Type of financing: public and private Funding

Date of foundation: 2001

Short description: established through the TMG, a service-oriented non-profit organisation with a wide shareholder structure that comprises all important public institutions. Successful focusing of the cluster initiative at the current needs of the regional industry was secured through the support of a cluster advisory board, an expert committee with members of regional industry.

Country: Austria, Upper Austria

Indicators' last elevation: November 2005

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	150	4
Cumulative turnover of partner companies of cluster initiative	3,32 Mrd. €	4
Cumulative number of employees of partner companies in the cluster initiative	26.590	4
Number of organized events within cluster initiative	59	4
Number of participants in these events	1.911	4
Number of co-operation projects in the cluster initiative	15	4
Number of companies participating in these co-operation projects in the cluster initiative	50	4

Indicator	Number	Evaluation per year
Leverage of cluster initiative (grant compared to investment costs)	1:6	4
Rate of SME of cluster initiative	84%	4
Number of company visits per year within cluster initiative	236	1
Number of involved actors/institution in cluster initiative	10	1
Rate of public funding of cooperation projects in cluster initiative	~25%	4
Rate of public funding of cluster initiative	65%	1
Customer satisfaction analysis per year within cluster initiative	no data	-

Name of cluster initiative: **Plastics Cluster**

Type of financing: public and private Funding

Date of foundation: 01.04.1999

Short description: established through the TMG, a service-oriented non-profit organisation with a wide shareholder structure that comprises all important public institutions. Successful focusing of the cluster initiative at the current needs of the regional industry was secured through the support of a cluster advisory board, an expert committee with members of regional industry.

Country: Austria, Upper Austria

Indicators' last elevation: February 2006

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	373	4
Cumulative turnover of partner companies of cluster initiative	10,79 Mrd. €	4
Cumulative number of employees of partner companies in the cluster initiative	52.599	4
Number of organized events within cluster initiative	102	4
Number of participants in these events	5.893	4
Number of co-operation projects in the cluster initiative	68	4
Number of companies participating in these co-operation projects in the cluster initiative	304	4

Indicator	Number	Evaluation per year
Leverage of cluster initiative (grant compared to investment costs)	1:6	4
Rate of SME of cluster initiative	85%	4
Number of company visits per year within cluster initiative	130	4
Number of involved actors/institution in cluster initiative	65	4
Rate of public funding of cooperation projects in cluster initiative	~25%	4
Rate of public funding of cluster initiative	40%	4
Customer satisfaction analysis per year within cluster initiative	no data	-

Name of cluster initiative: **Mechatronics Cluster**

Type of financing: public and private Funding

Date of foundation: January 2003

Short description: established through the TMG, a service-oriented non-profit organisation with a wide shareholder structure that comprises all important public institutions. Successful focusing of the cluster initiative at the current needs of the regional industry was secured through the support of a cluster advisory board, an expert committee with members of regional industry.

Country: Austria, Upper Austria

Indicators' last elevation: November 2005

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	196	4
Cumulative turnover of partner companies of cluster initiative	4,20 Mrd. €	4
Cumulative number of employees of partner companies in the cluster initiative	22.094	4
Number of organized events within cluster initiative	44	4
Number of participants in these events	1.425	4
Number of co-operation projects in the cluster initiative	12	4
Number of companies participating in these co-operation projects in the cluster initiative	39	4

Indicator	Number	Evaluation per year
Leverage of cluster initiative (grant compared to investment costs)	1:6	4
Rate of SME of cluster initiative	84%	4
Number of company visits per year within cluster initiative	158	1
Number of involved actors/institution in cluster initiative	30	4
Rate of public funding of cooperation projects in cluster initiative	~ 25%	4
Rate of public funding of cluster initiative	60	4
Customer satisfaction analysis per year within cluster initiative	1	1

Name of cluster initiative: **Furniture and Wood Construction Cluster**

Type of financing: public and private Funding

Date of foundation: January 2003

Short description: established through the TMG, a service-oriented non-profit organisation with a wide shareholder structure that comprises all important public institutions. Successful focusing of the cluster initiative at the current needs of the regional industry was secured through the support of a cluster advisory board, an expert committee with members of regional industry.

Country: Austria, Upper Austria

Indicators' last elevation: February 2006

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	196	3
Cumulative turnover of partner companies of cluster initiative	2,2 Mrd. €	3
Cumulative number of employees of partner companies in the cluster initiative	17.800	3
Number of organized events within cluster initiative	111	12
Number of participants in these events	4.915	12
Number of co-operation projects in the cluster initiative	57	12
Number of companies participating in these co-operation projects in the cluster initiative	254	12

Indicator	Number	Evaluation per year
Leverage of cluster initiative (grant compared to investment costs)	1:6	1
Rate of SME of cluster initiative	92%	1
Number of company visits per year within cluster initiative	160	12
Number of involved actors/institution in cluster initiative	8	1
Rate of public funding of cooperation projects in cluster initiative	~25%	12
Rate of public funding of cluster initiative	~46%	12
Customer satisfaction analysis per year within cluster initiative	1	1

Name of cluster initiative: **Foodcluster**

Type of financing: Public and privat funding

Date of foundation: September 2000

Short description: The Upper Austrian Food Cluster (UA FC) is a cross-sector network of food-producing companies, their direct and indirect suppliers and R&D and qualification facilities. Using synergies to enhance the innovatory strenght improves the regional and supra-regional competitiveness.

The Upper Austrian Chamber of Commerce is the body responsible for the Upper Austrian Food Cluster. All measures within the framework of the Upper Austrian Food Cluster are financed by the Province of Upper Austria from the Upper Austrian Future Fund, Provincial Agrarian Funds, the Upper Austrian Chamber of Commerce and contributions from network partners, and implemented in co-operation with the Provincial Chamber of Agriculture, the Federation of Austrian Industrialists and the Upper Austrian Chamber of Labour.

Country: Austria, Upper Austria

Indicators' last elevation: May 2006

Indicator	Number	How often this indicator is evaluated per year?
Number of partner companies in the cluster initiative	171	permanent
Cumulative turnover of partner companies of cluster initiative	~ 1,9 Mrd. €	permanent
Cumulative number of employees of partner companies in the cluster initiative	17.324	permanent

Number of organized events within cluster initiative	153	permanent
Number of participants in these events	2.878	permanent
Number of co-operation projects in the cluster initiative	37	permanent

Name of cluster initiative: **BioKneX: the East Midlands Bioscience Knowledge Exchange**

Type of financing: Higher Education HEIF-2 funding and Regional Development EU funding

Date of foundation: August 2004

Short description: BioKneX was formed through collaboration between three East Midlands Universities: Nottingham Trent University, the University of Nottingham and the University of Leicester. It is part of the UK Knowledge Exchange initiative funded by Hefce and is the only bioscience specialist Knowledge exchange. The organisation works as interface between Academia and Industry to raise the profile of bioscience research between East Midlands organisations and to promote the East Midlands internationally as a region of bioscience excellence and growth potential.

Country: UK

Indicators' last elevation: no data

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	132	1
Cumulative turnover of partner companies of cluster initiative	no data	1
Cumulative number of employees of partner companies in the cluster initiative	no data	1
Number of organized events within cluster initiative	25	1
Number of participants in these events	10-200	1

Indicator	Number	Evaluation per year
Number of co-operation projects in the cluster initiative	20	1
Number of companies participating in these co-operation projects in the cluster initiative	3-30	1
Leverage of cluster initiative (grant compared to investment costs)	no data	1
Rate of SME of cluster initiative	274	1
Number of company visits within cluster initiative	100	1
Number of involved actors/institution in cluster initiative	3	1
Rate of public funding of cooperation projects in cluster initiative	100%	1
Rate of public funding of cluster initiative	100%	1
Customer satisfaction analysis per year within cluster initiative	no data	-

Name of cluster initiative: **eminate**

Type of financing: Industry + National + Regional

Date of foundation: July 2005

Short description: eminate is a cluster of nanotechnology research centres established to meet industry needs for advanced materials, processing and characterisation requirements, particularly in the healthcare and engineering sectors. The University of Nottingham leads the initiative and is currently undertaking the complete refurbishment of a building in the City of Nottingham utilising funding from the local RDA. Further funding for staff and specialist equipment has been secured from the UK National Government.

e.g. establishment process (company driven, driven by regional authority); leader of cluster initiative; successes

Country: UK

Indicators' last elevation: no data

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	10 companies	continuously
Cumulative turnover of partner companies of cluster initiative	0.25 billion euro	-
Cumulative number of employees of partner companies in the cluster initiative	10,000	-
Number of organized events within cluster initiative	0 to date	4
Number of participants in these events	0 to date	-

Indicator	Number	Evaluation per year
Number of co-operation projects in the cluster initiative	2	-
Number of companies participating in these co-operation projects in the cluster initiative	20	4
Leverage of cluster initiative (grant compared to investment costs)	75%	-
Rate of SME of cluster initiative	currently 25%	4
Number of company visits within cluster initiative	will start in summer 2006	4
Number of involved actors/institution in cluster initiative	5 Universities	-
Rate of public funding of cooperation projects in cluster initiative	0	-
Rate of public funding of cluster initiative	50%	-
Customer satisfaction analysis per year within cluster initiative	no data	-

Name of cluster initiative: **Compare**

Type of financing: no data

Date of foundation: January 2000

Short description: A world-class industry cluster that provides a shared platform for IT businesses in Karlstad and the County of Wermland. Compare Karlstad is the result of an initiative undertaken by some of the largest IT companies in the Karlstad region some years ago.

Country: Sweden

Indicators' last elevation: no data

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	85	about once a year
Cumulative turnover of partner companies of cluster initiative	200 million Euro	as above
Cumulative number of employees of partner companies in the cluster initiative	5000	as above
Number of organized events within cluster initiative	6	as above
Number of participants in these events	100	as above
Number of co-operation projects in the cluster initiative	no data	-
Number of companies participating in these co-operation projects in the cluster initiative	no data	-
Leverage of cluster initiative (grant compared to investment costs)	no data	-

Indicator	Number	Evaluation per year
Rate of SME of cluster initiative	no data	-
Number of company visits per year within cluster initiative	no data	-
Number of involved actors/institution in cluster initiative	no data	-
Rate of public funding of cooperation projects in cluster initiative	no data	-
Rate of public funding of cluster initiative	no data	-
Customer satisfaction analysis per year within cluster initiative	no data	-

Name of cluster initiative: **IUC Wermland**

Type of financing: Driven by regional authority

Date of foundation: In the late -90th when 17 IUC started in Sweden

Short description: Limited company owned by 42 independent companies with the role as driving force for linking ideas, capital, new products and new SME in the region. IUC is responsible for educational and competence activities among the members.

Country: Sweden

Indicators' last elevation: no data

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	42	about once a year
Cumulative turnover of partner companies of cluster initiative	no data	-
Cumulative number of employees of partner companies in the cluster initiative	500	as above
Number of organized events within cluster initiative	4	as above
Number of participants in these events	50	as above
Number of co-operation projects in the cluster initiative	no data	-
Number of companies participating in these co-operation projects in the cluster initiative	no data	-
Leverage of cluster initiative (grant compared to investment costs)	no data	-
Rate of SME of cluster initiative	no data	-

Indicator	Number	Evaluation per year
Number of company visits per year within cluster initiative	no data	-
Number of company visits per year within cluster initiative	no data	-
Number of involved actors/institution in cluster initiative	no data	-
Rate of public funding of cooperation projects in cluster initiative	no data	-
Rate of public funding of cluster initiative	no data	-
Customer satisfaction analysis per year within cluster initiative	no data	-

Name of cluster initiative: **The Paper Province**

Type of financing: Economic association

Date of foundation: 1999

Short description: The Paper Province is an economic association that co-ordinates and develops co-operation between participants in the pulp and paper technology business in Wermland, northern Dalsland and Närke in central Sweden. The main focus is on Packaging technology.

Country: Sweden

Indicators' last evaluation: no data

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	54	about once a year
Cumulative turnover of partner companies of cluster initiative	about 800 million Euro	about once a year
Cumulative number of employees of partner companies in the cluster initiative	about 10000	about once a year
Number of organized events within cluster initiative	2	as above
Number of participants in these events	about 300	as above
Number of co-operation projects in the cluster initiative	no data	-
Number of companies participating in these co-operation projects in the cluster initiative	40	as above
Leverage of cluster initiative (grant compared to investment costs)	no data	-

Indicator	Number	Evaluation per year
Rate of SME of cluster initiative	no data	-
Number of company visits per year within cluster initiative	no data	-
Number of involved actors/institution in cluster initiative	no data	-
Rate of public funding of cooperation projects in cluster initiative	no data	-
Rate of public funding of cluster initiative	no data	-
Customer satisfaction analysis per year within cluster initiative	no data	-

Name of cluster initiative: **TDI Tool and Die Innovation in Sweden**

Type of financing: Partly national and regional public money and incomes from sold services to individual companies

Date of foundation: 2003

Short description: Driven by regional authority

Country: Sweden

Indicators' last elevation: no data

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	15	about once a year
Cumulative turnover of partner companies of cluster initiative	about 140 million Euro	as above
Cumulative number of employees of partner companies in the cluster initiative	700	as above
Number of organized events within cluster initiative	2	as above
Number of participants in these events	100	as above
Number of co-operation projects in the cluster initiative	no data	-
Number of companies participating in these co-operation projects in the cluster initiative	no data	-
Leverage of cluster initiative (grant compared to investment costs)	no data	-
Rate of SME of cluster initiative	no data	-

Indicator	Number	Evaluation per year
Number of company visits per year within cluster initiative	no data	-
Number of involved actors/institution in cluster initiative	no data	-
Rate of public funding of cooperation projects in cluster initiative	no data	-
Rate of public funding of cluster initiative	no data	-
Customer satisfaction analysis per year within cluster initiative	no data	-

Name of cluster initiative: **The Packaging Arena**

Type of financing: no data

Date of foundation: no data

Short description: The purpose of The Packaging Arena is to share knowledge. The vision is to "gather the best packaging competence in the world" and market it in the global arena. Behind this vision are the unique features of the region, a clear focus on the consumer and an open climate of collaboration.

Country: Sweden

Indicators' last elevation: no data

Indicator	Number	Evaluation per year
Number of partner companies in the cluster initiative	13	about once a year
Cumulative turnover of partner companies of cluster initiative	250 million Euro	as above
Cumulative number of employees of partner companies in the cluster initiative	no data	-
Number of organized events within cluster initiative	2	as above
Number of participants in these events	about 100	as above
Number of co-operation projects in the cluster initiative	no data	-
Number of companies participating in these co-operation projects in the cluster initiative	no data	-
Leverage of cluster initiative (grant compared to investment costs)	no data	-

Indicator	Number	Evaluation per year
Rate of SME of cluster initiative	no data	-
Number of company visits per year within cluster initiative	no data	-
Number of involved actors/institution in cluster initiative	no data	-
Rate of public funding of cooperation projects in cluster initiative	no data	-
Rate of public funding of cluster initiative	no data	-
Customer satisfaction analysis per year within cluster initiative	no data	-

Acknowledgements

Grateful acknowledgement is made for the generous giving of time and experience by the partner regions without them this publication could not have come into being:

- City of Karlsruhe
- TMG – Technologie- und Marketinggesellschaft m.b.H. of Upper Austria
- Tartu Science Park
- Lyon CCI
- Region of Wermland
- City Hall of Timisoara
- City of Nottingham
- Kaliningrad Regional Development Agency

Imprint

TMG – Technologie- und Marketinggesellschaft m.b.H. of Upper Austria
Hafenstraße 47-51
A-4020 Linz
www.tmg.at

inno GmbH
Auhofstraße 171/1
A-1130 Wien
www.inno-group.com

www.clusterforum.org



North East South West
INTERREG III C

PROJECT PART-FINANCED
BY THE EUROPEAN UNION



Contacts:

Karlsruhe

**The Economic Development
Department of Karlsruhe**
Mr Steffen Buhl
Tel +49 721 133 7343
steffen.buhl@wifo.karlsruhe.de
www.karlsruhe.de/Wirtschaft

Linz

**Oberösterreichische Technologie- und
Marketinggesellschaft m.b.H (TMG)**
Mrs. Beatrice Negeli-Ganz
Tel +43 732 79810 5065
beatrice.negeli-ganz@tmg.at
www.tmg.at or www.clusterland.at

Lyon

**Chambre de Commerce d'Industrie de Lyon
(Rhône-Alpes Region)**
Mr Franck Gautheron
Tel +33 472 40 59 46
gautheron@lyon.cci.fr
www.lyon.cci.fr

Tartu

Tartu Science Park
Mr Rene Tonnisson
Tel +372 50 29 873
rene@ibs.ee
www.park.tartu.ee

Värmland

Handelskammaren Värmland
Mr Ingar Jensen
Tel +46 54 22 1480
ingar.jensen@tyfonmail.se
www.vermland.cci.se

Timisoara

Primaria Minicipiului Timisoara
Ms Aurelia Junie
Tel +40 256 29 3605
ajunie@primariatm.ro
www.primariatm.ro

Kaliningrad

Kaliningrad Regional Development Agency
Mr Grigory Bunatian
Tel/fax +007 095 927-0678
rdamoscow@aha.ru
www.kaliningrad-rda.org

Nottingham

**Nottingham City Council
Economic Development Department**
Ms Zoe Jepson
Tel: +44 115 915 5170
zoe.jepson@nottinghamcity.gov.uk
www.nottinghamcity.gov.uk