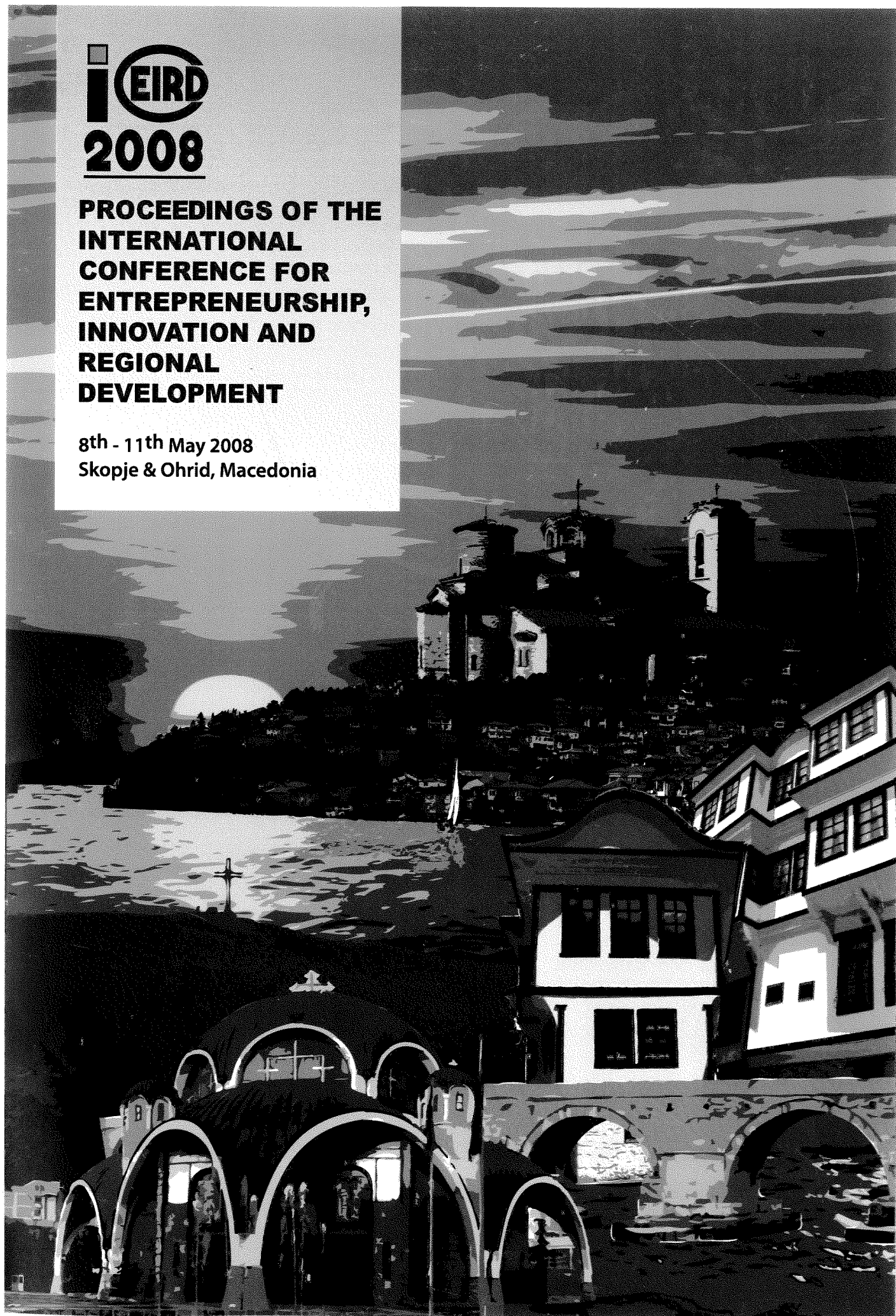




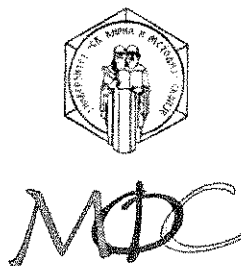
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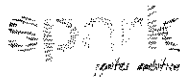
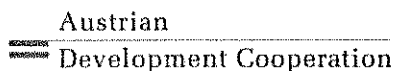


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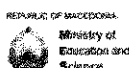
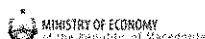
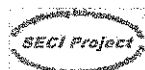
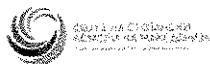
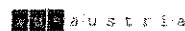
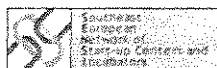
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## Regionally Focused Economic Development: The Cluster Approach

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Industrial clusters are geographic concentrations of tightly co-operating, legally independent organisations, which often develop dependant on the existence of a certain production factor or circumstantial on their own. Institutionalised industrial cluster try to imitate the natural phenomenon and are intended for regional economic development. In contrast to the natural phenomenon, institutionalised industrial cluster have a coordinated management and develop in more or less defined phases. This paper presents a phase-oriented model for the development of institutionalised industrial clusters.

### Keywords

Institutionalised Industrial Cluster, Regional Development, Management of Clusters

### 1. Introduction

With the development of a modern traffic and information infrastructure and increased mobility of capital and technology, common economic theory predicted the demise of *location* as a success factor. However, the flexible and mobile *new economy*, which supposedly does not need a specific location and where the exchange of money and information is possible anywhere and anytime, did not live up to the over-extended expectations. The growing number of industrial clusters shows that competitive advantage rests not only in companies, but is also dependant on the location of the enterprise. One could even constitute a "location paradoxon"; in other word, although there is an increasing tendency towards globalisation, the importance of "place" is also on the rise.

The term *cluster* is translated as a "close group of things" and is synonymous to *bushel, bale, heap, swarm and agglomeration*. In this paper the idiom cluster related to an *industrial cluster*. Industrial clusters are regional agglomerations of companies and other institutions, such as the Silicon Valley, the furniture in the Italian Emilia Romagna or the automotive industry in Styria/Austria. A common definition for cluster is on by Michael Porter:

"A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities. The geographic scope of a cluster can range from a single city or state to a country or even a network of neighbouring countries." [1]

Within such a cluster, horizontal and vertical co-operations between institutions with a geographical proximity develop. The OECD [2] defines *cluster* as "...networks of production of strongly interdependent firms (including specialised suppliers), knowledge producing agents (universities, research institutes, engineering companies), bridging institutions (brokers, consultants) and customers, linked to each other in a value added production chain."

## 2. Institutionalised Clusters

Basically, the formation of a cluster is dependent on the existence of an aggregation of companies and organisations of a certain area or sector of the economy. Such a basic agglomeration is commonly dependent upon the availability of specialised production factors, such as the existence of certain commodities, a certain infrastructure, specialised labour or other unique features. Sometimes agglomerations develop under other circumstances including geographical location, historic developments or a unique market situation, i.e., very demanding customers. Sometimes regional agglomerations develop by pure happenstance. Based upon such an agglomeration an industrial cluster can develop by itself.

In the late 80s and early 90s of the last millennium, the concept of *institutionalised industrial cluster* found a widespread application. In German-speaking countries institutionalised industrial cluster are commonly initiated through regional economic policy makers. The goal is to connect existing private enterprises with public institutions and attract new companies and utilise the synergies created by regional concentration [3]. In doing so, the intention is to institutionalise the "natural phenomenon" industrial cluster to transform local competitive advantages into a regional array of strength. The process of developing an institutionalised industrial cluster often needs additional assistance from private and public partners.

During the process of institutionalisation of a cluster an organisation is built. The characteristic traits of such an institutionalized cluster are:

- a legal body,
- an institutionalised management and
- an organisational infrastructure for co-operation.

In a cluster that developed autonomous, such an organisation can emerge by chance or might be provided by the marketplace. In a institutionalised cluster the such an organisation is actively built.

## 3. Institutionalised Clusters as a Means for Regional Development

Due to their limited size, small and medium sized enterprises (SME) often use the co-operation within a industrial cluster as a strategy to improve their standing domestically, and often, internationally. SME with a regional focus often do not possess the abilities and resources that are necessary to survive in a globalized environment. By means of co-operations and industrial clusters, SME are able to reap some of the advantages of their multinational competitors without renouncing their autonomy.

"The success of an enterprise will not only be dependant on its inner strength, but increasingly upon its relationships with other enterprises and organisations" [4]

This is done by focussing on their core-competency, while other specialised companies supply supplementary products or services. Furthermore, healthy competition between regional competitors and knowledge spillovers which are highly dependant on geographic proximity are leading to cheaper and qualitatively superior production. [5]

As mentioned above, regional authorities often have to the role of an initiator and fulfil a key function in the process of institutionalisation of such a cluster. This encompasses the engagement of experts to perform studies, the identification of possible proponents and partners and the orchestration of regionally aligned economic policy programs. The institutionalisation process needs an active management, which is often dependant on individuals and is seldom done in a systematic fashion.

## 4. Managing the Making of a Cluster

The relevance of clusters for competitiveness and regional development is fairly well documented [6],[7],[2],[8]. However, most of the existing work concerning start-up and management of clusters is on a very general level and does not assist the practical implementation process. Some existing models try to translate the experiences from successful co-operation projects into an ideal, step by step procedure in the sense of a checklist.

This paper will present a theory based phase-oriented model for the start-up of institutionalised industrial clusters.

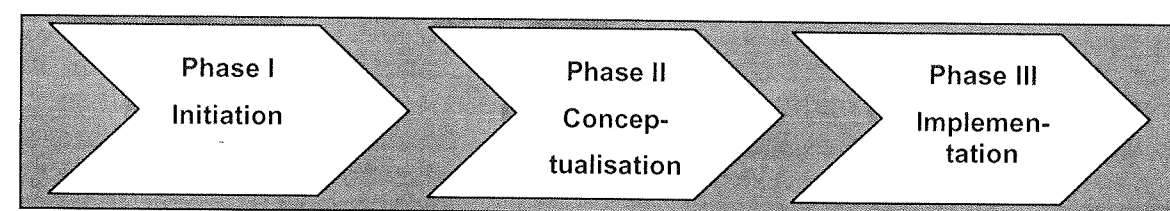


Figure 1 Developmental phases of institutionalised industrial clusters

The model distinguishes the three phases, initiation, conceptualisation and implementation and deviates from linear models by employing an iterative-recursive procedural strategy.

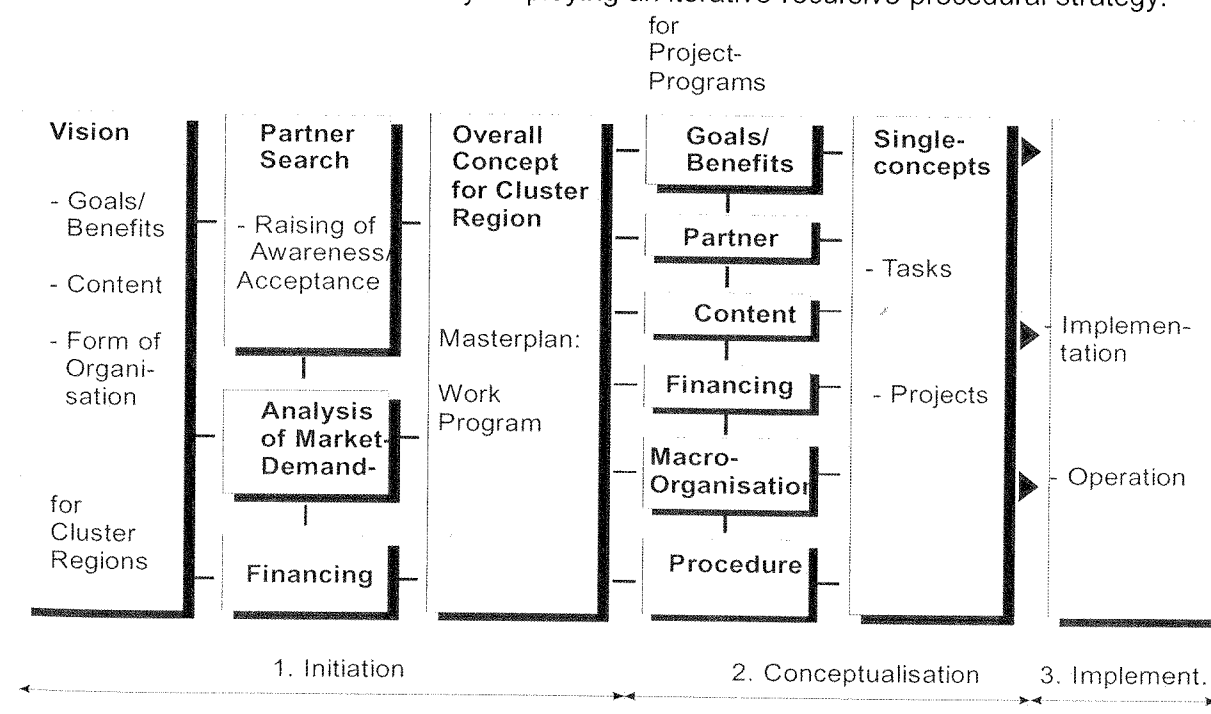


Figure 2 Phase-oriented model for the development of an institutionalised industrial cluster

### 2.1 Phase I: Initiation-phase

**Vision:** In the beginning, the idea for an industrial cluster is conceived by single individuals or a small group of people and is further developed into a sustainable plan.

**Partner Search:** Simultaneously to the development of the vision, the strategical positioning of goals, benefits and content of the proposed cluster, the search process for the appropriate partners and partner institutions is started.

**Analysis of Market Demand:** With respect to the partner search a thorough analysis of market demand and the performing of a preliminary study is advisable. Institutionalised industrial cluster are almost always based upon existing regional strengths in certain sectors and industries.

**Financing:** Furthermore, the financing of the initiation and conceptualisation phase has to be secured and the financial plan for the implementation phase has to be made.

**Overall Concept for the Cluster-Region:** At the end of the initiation phase an overall concept for the cluster region should be made, which should contain the strategic and conceptual design as well as a masterplan with a precise work program for setting up the cluster.

## 2.2 Phase II – Conceptualisation

**Goals/Benefits:** Together with the "lead-partners", the goals and the expected benefits of the different project- programs are defined. The clear definition of the benefits of the cluster to the different partners and partner institutions is decisive for their involvement into the cooperative projects later on.

**Partner:** It is very important to find adequate partners for the various project programs and projects. The early involvement of the appropriate partners is a key element for the success of the cluster initiative.

**Content:** Together with the partners, the content of the project programs is defined. Starting from the goals set earlier on and the expected benefits the project, programs are formulated in more detail and the content and scope of the project programs are defined.

**Procedure:** In order to carry out the project programs, adapted procedures should be developed. As a basic rule, there should be a similar procedure where possible but a situational change of procedure where necessary.

**Macro Organisation:** The development of a macro organisation for the project management ensures the efficient execution of the project programs.

**Financing:** It is important to safeguard the financing of the project programs not only for the build-up phase but also for the first few years of operation.

**Singular Concepts:** By implementing the tasks and projects illustrated in the programs, the cluster becomes tangible and generates benefits to the members. This includes the enhancement of already existing cooperatives as well as the implementation of new projects.

## 2.3 Phase III – Implementation

**Implementation:** The beginning of the implementation phase is characterised by the realisation of the projects and tasks from the project programs. One of the main project programs is the buildup of the institutionalised cluster organisation, which often starts with the appointment of a cluster manager. The cluster manager should be the human face of the cluster and is intended to personify the institutionalised cluster organisation. Furthermore, executive boards and steering committees have to be filled with representatives of different members and stakeholders.

Within the pilot activities it is important to initialise and realise the first cooperative projects, which should serve as a reference to gain wider support and new members. Simultaneously, the build-up of an office and IT-infrastructure should be started.

The acquisition of additional members is essential for the success of the cluster. In order to make the existence of the cluster publicly known and to win additional partners, public events and social gatherings can be organised. Furthermore, the offering of special services or specialised infrastructure can help raise the profile of the new cluster. It is very important to produce a visible benefit for the members and foster the exchange of knowledge.

At the end of this phase the cluster should at least partially be financed by its members. If the cluster is finally established on a broad level, the cluster organisation should be developed into a service oriented organisation.

## 5. Conclusions

"In the future, success will come to those companies, large and small, that can meet global standards and tap into global networks. And it will come to those cities, states, and regions that do the best job of linking the businesses that operate within them to the global economy." [9]

The cluster approach to regional economic development and its use as a means to foster SME created quite a number of cluster initiatives in Europe. However, of all the different initiatives a relatively small number achieved institutionalisation and even less self sufficiency. One reason for this is, that a great number of singular initiatives exist side by side viewing themselves more as competitors than partners.

Another reason seems to be, that often there is not enough management capacity and little appreciation for the manifold problems of starting-up and management of such a complex undertaking. The model presented in this paper will give insights overcoming those problems.

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## List of Abbreviations

SME Small and Medium Sized Enterprises