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8th - 11th May 2008
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"Innovation Decision-Making in Small and Medium-Sized Firms: The Case of the Portuguese Firm", Alexandra Braga, Carla Marques, Vitor Braga, UTAD, ESTGF - IPP, PORTUGAL

"Internet Entrepreneurship in Electronic Business", Piotr Brudo, Gdansk University of Technology, POLAND

"Student Entrepreneurial Behavior: Personal Attributes And The Wish To Create Their Own Business", Chris Gerry, Carla Susana Marques, Fernanda Nogueira, DESG-UTAD, PORTUGAL

“Corporate Responsibility, an Innovation in Travel Agencies’ Activity: Successful Models Implemented in Romania and Turkey by Foreigner Tour Operators”, Ruxandra Dinu-Cristea, Dilek Donmez, New York College, Istanbul University, GREECE, TURKEY

“Overview of the Outcomes of the Business Start-Up Center at the University of Tuzla”, Boris Ćurković, Alan Topicć, Sanja Hajdukov, BSC Tuzla, BOSNIA AND HERZEGOVINA

“Business process model reconfiguration on basis Kaplan-Norton’s strategy maps”, Svetoslav Dimkow, Technical University- Sofia, BULGARIA

“A dynamic model of measuring agility of manufacturing enterprises”, Svetoslav Dimkow, Peter Ivanov, TU Sofia, BULGARIA

“Supply Chain Management - the Key for Improving Macedonian SME’s Competitiveness”, Elena Dimova, Tashko Rizov, Faculty of Philosophy, ICL Group, MACEDONIA

“Regional and Global Networking of Business Incubators: The case of ECAbit (Eastern European and Central Asian Business Incubators Network)”, Rositsa Djambazova, Todor Yalamov, Stefan Schandera, Gotse Delchev Business Incubator, ARC Foundation, infoDev, BULGARIA, GERMANY

“Strategic Management of Small Businesses – Analysis and Exploitation of Entrepreneurial Opportunities”, Ljubomir Drakulevski, Elena Pipileva, Faculty of Economics, MACEDONIA

“Governmental Policies for Development of Small and Medium Enterprises (SMEs) in Bosnia and Herzegovina and Other Countries in Transition”, Zijad Džafić, Adnan Rovčanin, Jozo Bejić, Faculty of economics, BOSNIA AND HERZEGOVINA

“Needs analysis and setting up measures at Western Balkan Higher Education Institutions for enabling them to fulfill their central role in the national R&D systems”, Franciika Egar, Almir Kovačević, Herbert Pock, WUS Austria, Austin Pock & Partners, AUSTRIA

“Innovation Capacity and Needs in South East Europe focusing on the Western Balkan Countries”, Irini Eftimiadou, Nikos Sidiropoulos, I4G-Euroconsultants Group, GSRT, GREECE

“Clustering and Innovation Policy: A Regional Approach 1” João Ferreira, Susana Azevedo, Mário Raposo, University of Beira Interior, PORTUGAL

“Development Question for Competitive Regional Advantages”, Franci Ćuš, University of Maribor, SLOVENIA
“Research on the Role of Marketing in Strengthening the Entrepreneurship”, Aida Franjić, Sarajevo Insurance, BOSNIA AND HERZEGOVINA

“Analysis of the Status and Opportunities for Further Development of Bulgarian Entrepreneurial Education in Universities”, Lidia Galabova, Petko Ruskov, Technical University Sofia, Sofia University, BULGARIA

“Web Based Environment in Engineering and Entrepreneurship Education”, Valentina Gecevska, Franco Lombardi, Franci Cuš, Marjan Guisev, Faculty of Mechanical Engineering - Skopje, Politecnico di Torino, University of Maribor, Faculty of Natural Sciences, MACEDONIA, ITALY, SLOVENIA

“Industrial Complex As Factor Of Success Of Sustainable Development Of The State: Ukraine And World”, Vasyl H. Gerasymchuk, National Technical University, UKRAINE

“Key Success Factors of Organizational Change and Their Impact: A Case Study”, Dusica Janevska, Gligor Stojkov, Macedonian Telecommunications, FaSTO Consulting, MACEDONIA

“Regional Economic Development of Eastern Macedonia - From a Pilot, to an All-Inclusive effort”, Aleksandar Karaev, Joachim Goeske, Hari Shutoski, Gligor Stojkov, GTZ RED, GTZ, FaSTO, MACEDONIA

“The Importance of Entrepreneurial Leadership and Vision for Successful Entrepreneurship and Entrepreneurial Management: An Empirical Study”, Kay Hooi Alan Keoy, Mohamed Zairi, Sultanul Chowdhury, University of Bradford, UNITED KINGDOM

“Improvement and Stimulation of Effectiveness of Innovation Activities in Latvia”, Karlis Ketners, Solvita Zvidrina, Technical University of Riga, LATVIA

“Planning in Small and Medium Enterprises in the Herzegovina Region”, Zdenko Klepić, Branimir Skoko, Nikola Papac, University of Mostar, BOSNIA AND HERZEGOVINA

“Clusters and Business Networking in the Cross Border Regions: One Example From the Region of Petrich, Bulgaria, and Serres, Greece”, Diana Kopeva, Milen Baltov, Lalka Borisova, University of National and World Economy, Burgas Free University, Internationa Business School, BULGARIA

“Competitiveness Performance of Macedonian Automotive and Food Processing Clusters”, Aleksandar Kostadinov, MACEDONIA

“Small and medium-sized enterprises in the field of agriculture in the Republic of Macedonia between competitiveness-based strategies and the Blue Ocean Strategy”, Kostadinov Toshо, Cilev Goce, Nikolova Nedeljka, Macedonia PSI Institute of Animal Science, MACEDONIA

“The Impact of the Entrepreneurial Profile Upon the Export of Agricultural SMEs in the Republic of Macedonia”, Toshо Kostadinov, Nedeljka Nikolova, Goce Cilev, Macedonia PSI Institute of Animal Science, MACEDONIA
“Marketing Strategy of Innovative Activity of Small Enterprises”, Nadia S. Kubyshyna, National Technical University of Ukraine, “Kyiv Polytechnik Institute, UKRAINE

“International Trade and Entrepreneurship – The two Drivers of Western Balkan Countries”, Arto Lahti, Helsinki School of Economics, Helsinki, FINLAND

“Linking Local Actors – Clusters in Western Balkan Countries”, Jana Machačová, Centrum for Social Innovation, AUSTRIA

“Usage of Modern Decision Making Techniques in Business Strategies”, Martin Maksimovski, Login systems, MACEDONIA

“Small Enterprises as a chance for development- Case of Serbia”, Slobodan Maric, Bozidar Lekovic, The Faculty of Economics Subotica, SERBIA

“Innovative Capacity of SME to Competitive Advantage and its Influence on Performance: a Regional Perspective”, Carla Susana Marques, João Ferreira, DESG-UTAD, DGE-UBI, PORTUGAL

“Regionally Focused Economic Development”, Walter Mayrhofer, Delčo Jovanoski, Fraunhofer PPL, Faulty of Mechanical Engineering - Skopjé, AUSTRIA, MACEDONIA

“Development of Entrepreneurial Infrastructure - EU project PHARE 2005 Croatia”, Igor Medic, Jean Pierre Marićić, Business Incubator BIOS Osijek, CROATIA

“Optimal Innovation Networks and Policy Implications”, Avi Messica, Holon Institute of Technology, ISRAEL

“The Center for Innovation in Mechatronics (CIMEC)”, Constantin Anton Micu, Nicolae Alexandrescu, Laura Trifan, Polytechnic University Bucharest, ROMANIA

“Clusters development based on business networking”, Slobodan Morača, Jelena Ćirić, Danijela Gračanin, Faculty of Technical Sciences, SERBIA

“Clusters- the way to rise company’s competitiveness”, Slobodan Morača, Jelena Ćirić, Danijela Gračanin, Faculty of Technical Sciences, SERBIA

“Innovation process as a tool for improvement of competitive position”, Borislav Nestorovski, Macedonian Telecommunications, MACEDONIA

“National promotion of entrepreneurship and innovation of SMEs of the Republic of Macedonia”, Ljubisa Nikolovski, Marijan Stojcev, APPRM, MACEDONIA

“Managing Innovation in Small medium enterprises in Romania”, Andra Onofrei, Alexandros Psychogios, City College, SEERC, GREECE

“Romanian Business Incubators Stimulating the Entrepreneurial Spirit”, Ana Maria Onu, EmiliaStanescu, Ioan Pitrescu, National Intitute for SMEs, Technology and Business Incubator Centre, ROMANIA
"Review and Analysis of Clusters in Croatia", Masa Orlovic, Zagreb Chamber of Economy, CROATIA 476

"Governmental contracts – the form of relationship between big and small business", Loretta Parashkevova, Varna Free University, BULGARIA 483

"Entrepreneurship, Local Authorities and Regional Economic Development", Jovan Pejkovski, Faculty of Philosophy, MACEDONIA 492

"Innovation and New-Product Development: Best Practices for Higher Performance", Boro Petkoski, Vladimir Dukovski, Faculty of Mechanical Engineering - Skopje, MACEDONIA 498

"Process Oriented Economic Development - Case Study Zenica Region", Darko Petkovic, Nino Serdarevic, University of Zenica, Spark BIH, BOSNIA AND HERZEGOVINA 505

"Networking as Key Element in Strengthening South-East European SME Sector; Best practices in Regional Transfer of Knowledge and Existing Gaps", Nino Serdarevic, Darko Petkovic, Spark, BOSNIA AND HERZEGOVINA 510

"Entrepreneurship in Educational system – Needs and Opportunities in Republic of Macedonia", Konstantin Petkovski, Rozita Talevska-Hristovska, Faculty of Technical Sciences - Bitola, Government of the Republic of Macedonia, MACEDONIA 516

"Entrepreneurial Aspirations of Students in Republic of Macedonia", Konstantin Petkovski, Rozita Talevska-Hristovska, Faculty of Technical Sciences – Bitola, Business Start-up Centre - Bitola, MACEDONIA 522

"Irritating the Organisation: Knowledge-Based Methods for Shaping the Future", Katja Pook, , Campbell Warden, Independent consultant, Instituto de Astrofisica de Canarias, GERMANY, SPAIN 530

"Postmodern Entrepreneurship – Possibilities for Networks of Small and Medium Enterprises (SMEs)", Daniela Popova, Varna Free University, BULGARIA 538

"Regional Development of Rural Areas Through the Larger Res Integration", Sanja Popovska Vasiljevska, Kiri Popovski, Macedonian Geothermal Association, Ss. Kliment Ohridsk University – Bitola, MACEDONIA 542

"The Interchangeable Lessons Learned Between Curricula and Extra Curricular Courses in The Field of Entrepreneurship Education", Elena Rodriguez-Falcon, Liz Giffott, University of Sheffield, WRECETLE, UNITED KINGDOM 549

"Modeling of the Research and Education Strategy in Faculty of Mathematics and Informatics, Sofia University", Petko Ruskov, Yanka Todorova, Rumen Nikolov, Sofia University FMI, BULGARIA 556

"Technological Innovations’ Development: Peculiarities of Forecasting of Information and Communication Technology, and Allied Industries", Taras V. Sakalosh, Kyiv Polytechnic Institute, UKRAINE 566
“Development of the Students’ Entrepreneurship Skills at the University “Ss Cyril and Methodius””, Katerina Sapundzieva, Faculty of philosophy, MACEDONIA

“The University- Industry Collaboration: A Key Challenge for the Integration of the Regional Innovation Systems in Bulgaria”, Kostadinka Simeonova, Bulgarian Academy of Sciences, BULGARIA

“Capacity Building for Regional Development in Macedonia”, Gligor Stojkov, FaSTO Consulting, MACEDONIA

“Entrepreneurship Education in Engineering and Scientific Faculties”, Milena Stoycheva, Petko Ruskov, Junior Achievement, Sofia University, BULGARIA

“Business Intelligence as Creator of Knowledge that is needed for Organizational Changes”, Dragan Sutevski, Radmil Polenakovik, Macedonian Customs, Faculty of Mechanical Engineering - Skopje, MACEDONIA

“The Bulgarian Small and Medium-sized Enterprises and Innovations Priorities”, Neviana Taneva, Dimcho Dimov, Technical University - Sofia, BULGARIA

“Networked Incubation Services the Case of Greece”, Michael Printzos, Constantin Thiopoulos, iNi-CUBATOR S.A. Athens, GREECE

“Finite-stage Markov Decision Processes in Inventory Management “, Katerina Mitkovska-Trendova, Robert Minovski, Delco Jovanoski, Military Academy, Faculty of Mechanical Engineering - Skopje, MACEDONIA

“Business Process Management and Business Process Rules - Examples of Use of These Techniques and Perceived Benefits”, Kalina Trenesvka Blagoeva, Saso Josimovski, Faculty of Economy - Skopje, MACEDONIA

“Introducing European Charter for Small Enterprises at the Cantonal Level Supports Small and Medium Enterprises (SME) Policy Creation in BiH and Western Balkan Region”, Bahrija Umihanić, Admir Nuković, Sladjana Simić, The Faculty of Economics, Agenore Ltd, BOSNIA AND HERZEGOVINA

“Voucher System of Counseling Transferred From Slovenia to Republic of Macedonia”, Jaka Vadinjal, GEA College, Ljubljana, Slovenia

“Social Entrepreneurship: a Modern and Innovative Contribution for Regeneration and Sustainable Development of Regions”, Asta Valackienė, Diana Micevičienė, Kaunas University of Technology, LITHUANIA

“National Culture and Entrepreneurial Orientation - Focus on Bulgaria”, Georgi Vangelov, Universiteit van Amsterdam Alumnus, BULGARIA

“The role of the Macedonian Universities in Raising the Awareness of Development of Entrepreneurial Spirit, Culture and Support the Cooperation with Industry and Economy”, Marija Zarezankova-Potevska, First Private FON University, MACEDONIA

“Incubator”, Ildiko Zedi, Koraljka Obradovic, Business Incubator Subotica, SERBIA
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 also dependant on the location of the enterprise. One could even constitute a ‘location paradox’; 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 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.”

81 Op. Cit. Ref.34.
83 Op. Cit. Ref.34.
91 Op. Cit. Ref.64.
92 Op. Cit. Ref.34.
101 Op. Cit. Ref.84.
104 Op. Cit. Ref.34.
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, historical 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 cooperation 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 globalised environment. By means of cooperations 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 fulful 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.

![Developmental phases of institutionalised industrial clusters](image)

**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.

![Phase-oriented model for the development of an institutionalised industrial cluster](image)

**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 strategic 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 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.

Singualr Concepts: By implementing the tasks and projects illustrated in the programs, 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 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, the 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.

References

List of Abbreviations
SME Small and Medium Sized Enterprises