

BENCHMARKING CLUSTER PERFORMANCE – A TOOL FOR POLICY

Background Document

prepared for the Workshop on

The Use of Statistical Cluster Data for Policymaking

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Welcome to the Workshop

First of all welcome to the workshop on *The Use of Statistical Cluster Data for Policymaking*. We hope that you will learn some new things, meet new people, and enjoy your stay in Copenhagen.

The *objective* of the workshop is to *discuss and increase our understanding on the importance of cluster analysis for policymaking*.

To do this, a number of questions will be addressed throughout the day:

- What are policymakers' demands for cluster analysis?
- Is cluster analysis used to guide policy formulation elsewhere? How have they done it? And with what impact?
- What is going on in Europe? What kind of cluster analysis is being done on a European level? And on a Baltic Sea Regional level (within the BSR InnoNet)?
- What is the European Cluster Memorandum? What will it propose?
- How will this topic move forward? What are the plans? What are the demands?

From the analysts' working group (WP4) within the BSR InnoNet, our hope is to gain a broader perspective on questions above and get feedback on our ongoing work. To ensure that the analytical work we are undertaking is useful in the policymaking process, it is important for us to understand the demands (e.g. what questions need to be answered) as well as 'good practice' examples and alternative approaches to answering these questions.

This paper is a short introduction to the ideas and mindset behind the analytical work in the BSR InnoNet. The paper is not a full description of the concepts of clusters but is intended as a background document and an initial presentation of the concepts connected to our continued work on conducting cluster analysis for policymaking.

I hope that this paper and the discussions of the day will provide you with some "food for thought" and that we all are able to increase our knowledge on this topic.

On behalf of the analysts' working group of the BSR InnoNet and FORA,



Jørgen Rosted, Director FORA

Introduction - Clusters as a Driver of Innovation

The global map of businesses is increasingly dominated by geographically concentrated groups of related companies and other related economic actors and institutions – so-called clusters. Studies show that companies inside these clusters are remarkably good at creating jobs, high wages and surplus – this is due to cluster companies being relatively more innovative and competitive.

These results indicate that something interesting is going on inside the clusters. The actors draw on some advantages from their mutual proximity and connections. And the advantages seem to increase in line with the rise of the innovative society. As the key competitive factor is no longer the price/quality ratio but the ability to use competencies and knowledge to launch new innovations, the dynamics in clusters are changing, and the need for a competitive environment for innovation is even more important. Today, it is widely accepted that clusters and clustering processes have a positive impact on innovation and economic growth.

In light of this knowledge, a large number of countries and regions have embraced the concept of clusters. All over the world, people and institutions work on developing and supporting clusters through individual programmes and cluster initiatives. And it is widely understood that the most successful regions/countries understand how to develop competencies and knowledge inside clusters.

This understanding has raised a lot of work on identifying the cluster mechanisms and on evaluating cluster initiatives and cluster programmes. The crucial question is: what is the impact of all these different cluster initiatives and policies?

As mentioned above, this paper is a background document and is intended as a preliminary introduction to the ideas behind the analytical work within the BSR InnoNet project. The first section provides a short introduction on the need for a fact-based basis for making cluster policy. Section two and three set the base for understanding the perspective from which we are speaking – first on the top down/bottom up perspectives and second on the whole idea of *The Cluster Environment for Innovation* and the matching cluster initiatives. The last section is a short description of the analytical work within the BSR InnoNet.

The need for a Fact-based Ground

It is important to stress that clusters are not a new phenomenon. Clusters have existed since the rise of civilized activity and are natural entities in which companies develop. This also means that creating clusters is not an easy or even a desirable thing to engage in – all too often attempts to form new strongholds from the ground have failed.

But even though cluster creation is not a plausible way of enhancing competitiveness and economic growth, it is generally understood that the positive dynamics in *existing* clusters can be supported – and that initiatives aimed at improving the cluster environment for innovation therefore catalyzes performance in existing clusters.

Over the last decade, the public sector in many countries has understood the similarities/links between clustering processes and innovation processes. This has led to increasing public investment in cluster development through different types of innovation programs or support mechanisms.

As a result of the increasing levels of investment in this type of support, there is an increasing demand from policymakers to understand the resulting impact. How does public support – through what can be called ‘cluster policy’ – have an impact on cluster performance? How has cluster performance impacted regional/national economic growth over time? Are there certain framework conditions that have a bigger influence on performance – where the public sector should focus their support?

One way of answering these questions is through systematical international benchmarking. In short, this means to test the correlation between cluster performance and what can be called cluster framework conditions or the cluster environment for innovation. If it is possible to find a pattern between the regions/countries with the most successful cluster and the existence of specific framework conditions in these regions/countries, it gives a unique possibility to learn from the best performing regions/countries.

To develop a model based on systematical international benchmarking, it is crucial to discuss the primary assumptions. First, it is important to clarify which perspective on clusters we are taking, and second, the broad range of initiatives must be acknowledged. The next two sections address these topics.

Perspectives on Clusters

There are a number of ways to describe the economic and innovative landscape of a nation. Over the past fifteen years, *clusters* have become an increasingly popular way not only of describing the landscape, but also of structuring the action agenda.

There are many different views on the definition of a cluster. It is perhaps not so important to agree on the definition of a cluster, but rather to understand the perspective from which one is speaking. In very broad terms, clusters can be viewed from the “top-down” perspective, or from the “bottom-up” perspective. Both perspectives are equally important, but for distinctly different reasons – and the preferable perspective is hugely dependent on the scope of analysis.

A “top-down” perspective of clusters provides a view of specialization patterns within the business environment of a given geography. This perspective can be used to:

- understand the overall composition of the business environment (e.g. which clusters account for what levels of employment and productivity)
- understand the general trends (e.g. what clusters are growing or shrinking)
- have an overall view of how one geography compares to another (e.g. what drives the economy of one country compared to another, and how has this changed over time)

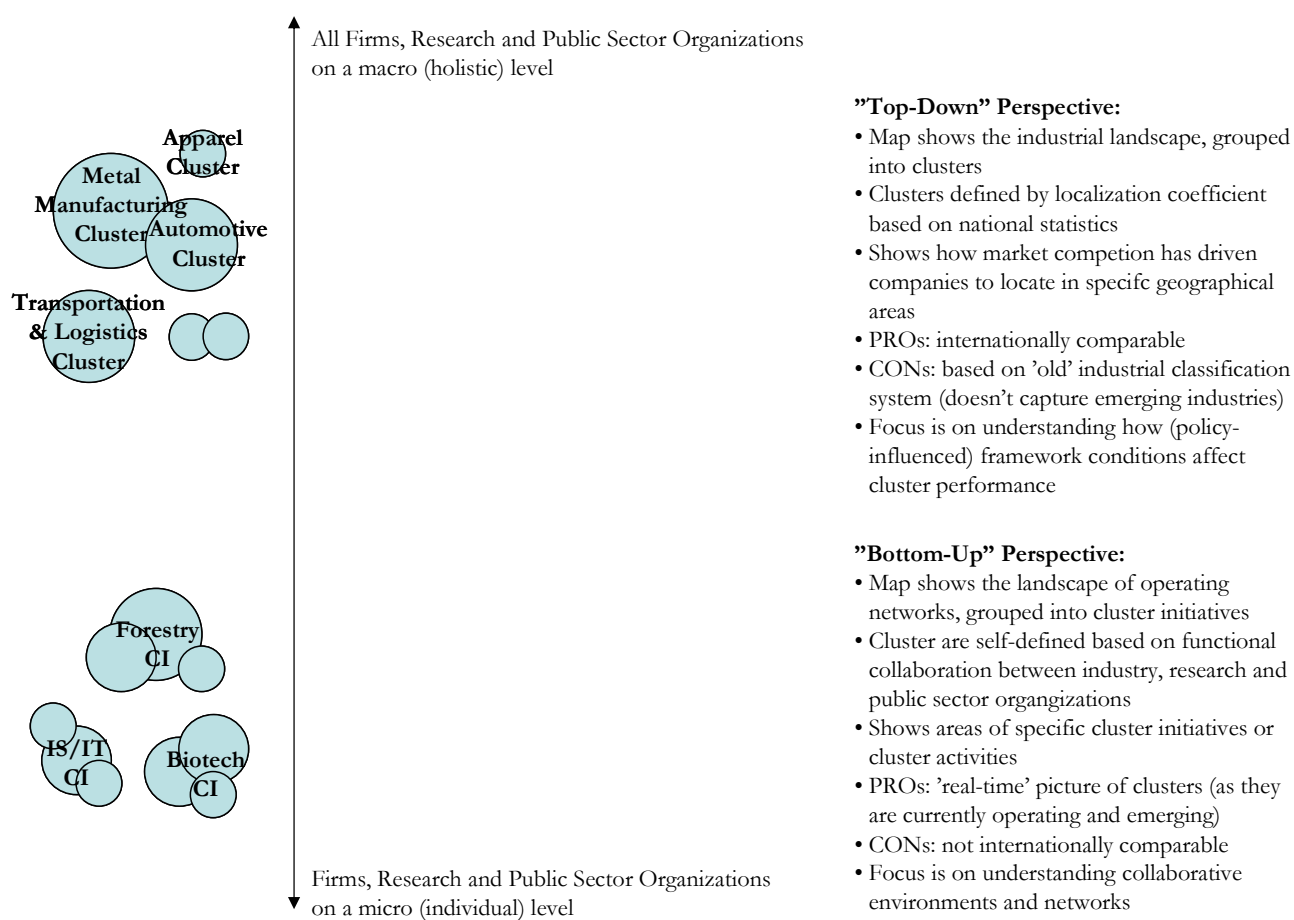
A “bottom-up” perspective of clusters provides a view of collaboration patterns within the business environment of a given geography. This perspective can be used to:

- better understand a geography’s social capital (e.g. labor mobility, the evolution of business networks, etc.)

- provide clues to the future specialization patterns within the business environment (e.g. which types of industries will work together)
- provide input to regional investments in cluster initiatives (e.g. what areas could benefit from cluster facilitating)

The illustration below attempts to describe these two perspectives.

Illustration – Perspectives on Clusters



Both perspectives provide useful and important input to policymakers and in theory a combination of the two perspectives should be persuaded. However, only by assessing a somewhat identical perspective internationally comparable information for benchmarking can be provided. And that is a crucial acknowledgement in the analytical work in the BSR InnoNet: we need to identify a somewhat identical platform of clusters if we want the possibility to make international benchmark.

The Cluster Environment for Innovation

The range of initiatives for improving the cluster environment for innovation is broad - from the establishment of a cluster organization that promotes networking, common branding etc. to

national strategic cluster policy on shaping innovation policy. It is important to acknowledge that each type of initiative has its own purpose, and that different initiatives are complementary - not contradictory.¹

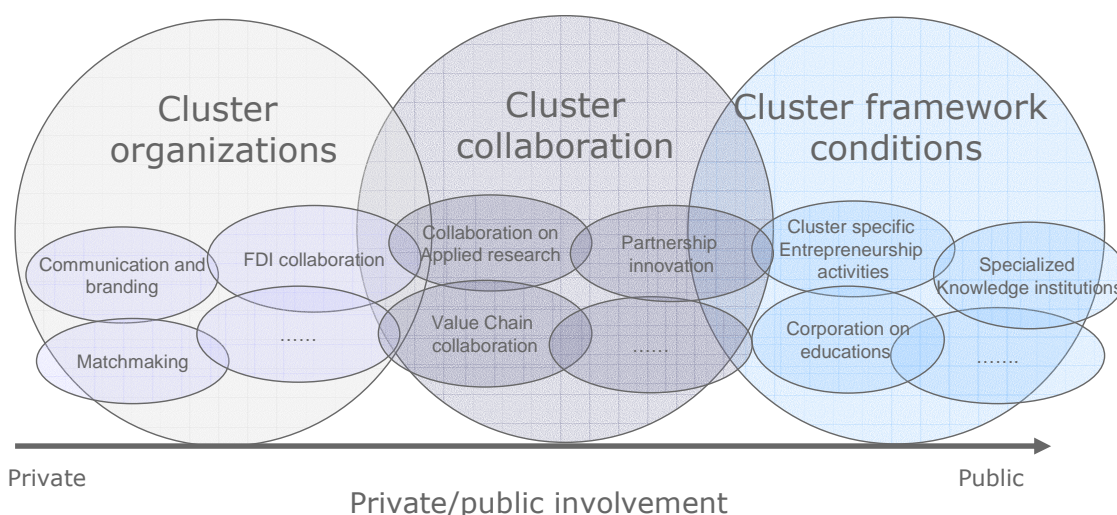
The illustration below gives an idea about different types of cluster initiatives aimed at improving *The Cluster Environment for Innovation*.

The initiatives to the left concern facilitating, communicating, networking and mutual marketing. These initiatives are often undertaken by a cluster facilitator or a cluster organization.

The initiatives in the middle are areas of cluster collaboration – initiatives based on more binding collaboration between individual companies and knowledge institutions focused on specific business areas.

The initiatives to the right are different areas of public policy – i.e. what can be called cluster policy or cluster framework conditions. These initiatives are formulated by policy makers, but often the cluster facilitator helps as a catalyst.

Illustration – The Cluster Environment for Innovation



It is important to stress that all initiatives serve as a base for development of clusters. And the initiatives can be seen as an iterative process over time to improve the cluster environment. Often the initial contact between companies and related actors goes through cluster organizations, and this can pave the way to further and more binding cluster collaboration. And over time, the cluster organization can function as a catalyst for pinpointing the needs for cluster-specific framework conditions.

¹ In this paper we equate cluster initiatives and cluster activities i.e. initiatives taken to support and develop clusters.

The degree of private/public involvement is often quite different in the different initiatives, but since the public is often either a co-financier or a policymaker, it is fruitful from a public perspective to evaluate the effect of initiatives in all three areas – to give ground for prioritizing.

The scope of the analytical work (WP4) within the BSR InnoNet project is to develop such a tool for prioritizing. A tool to give a fact-based basis for policymakers that can help answer questions such as: how do different cluster initiatives affect the cluster environment for innovation? And what is the effect on the overall innovation capacity in clusters?

The Analytical Work within the BSR InnoNet

The main objective of the analytical work in the BSR InnoNet is to find effective cluster policies – that is to analyse which policies make a difference for the growth and competitiveness in clusters. In line with this objective the analysis give insight into the BSR clusters on performance and framework conditions. This serves as one bit of information to the overall BSR InnoNet goal of finding areas for trans-national collaboration.

In order to target the objective in WP4 five analytical steps are taken (described in detail in *The Cluster Benchmarking Project – Pilot Project Report*², FORA, November 2006):

1. Identifying clusters for benchmarking
2. Assessing key economic indicators in a common standardized database
3. Measuring cluster performance and cluster-specific framework conditions
4. Testing the correlation of cluster performance and cluster-specific framework conditions
5. Learning from best practice through peer reviews

First, the analytical work provides a picture of the clusters in the BSR region. The mapping is based on a European translation of the Porter cluster code carried out by Sölvell and Ketels at Stockholm School of Economics, adjusted to the BSR context³.

Second and third, the analytical framework and database on cluster employment and productivity will serve as a tool for detecting interesting areas for collaboration in the BSR, and (over time) for monitoring the development of clusters in the region.

Fourth, the standardised database will enable us to gain valuable insight into the geographical location of top-performing clusters – and to identify the framework conditions conducive to the creation of top-performing clusters.

Last, peer reviews – the identification and analysis of the conditions used in the areas with the best performing clusters – can provide a unique basis for evaluation and changes to domestic

² available for download at http://www.nordicinnovation.net/img/cluster_benchmarking_project_final_report.pdf

³ Documentation of the adjustments are presented in a technical paper, to be discussed at the WP4 meeting on the 24th of May.

framework conditions. The methods and conditions used in the best regions may work as useful inspiration.

To sum up, the benchmark analysis allows countries inside the BSR to draw inspiration from each other and to detect areas for further collaboration. At the same time, the identification of best practise will be a very powerful tool in the political debate. The continued monitoring and comparison of cluster performance using indicators such as growth, employment and productivity will ensure political attention and commitment. This will facilitate improvements in cluster framework conditions over time.

The initial scope is limited to the Baltic Sea Region. Yet (if interest and financing is available), the idea is to broaden the scope of the model to the rest of Europe and the US. This will give the BSR and other countries an even better base for making fact-based cluster policy.

Your Input

It is important for the continued work in WP4 to get as many inputs and comments as possible. Therefore we request you to write down your comments and ideas on this page, rip it off and turn it in to any of the workshop administrators.