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Clusters and exports

1. Introduction

“Clusters and internationalisation”. This was the theme for a Netmatch workshop for 50 cluster practitioners and, indeed, enthusiasts. It is a topic at the very heart of developing and maintaining dynamic and vibrant clusters.

The following workshop summary distills some of the key ideas and approaches outlined by Rodin Genoff, Managing Director, Rodin Genoff & Associates who addressed the workshop. And with the well honed facilitation skills of Bjarne Jensen, Director, REG LAB, these approaches were used to gain new insights into the clusters workshop participants are currently developing: from food and offshore oil and gas, to the fashion, creative industries and defence.

Normally at such a workshop one would expect a robust discussion of “how do we do it?” Of course, this discussion did take place. But preceding it was a rigorous exploration of industry structures and cluster typologies. “Well that’s a bit academic” you may think!

But let’s not forget that understanding “our” industry’s structure and cluster typology directly informs how we can develop responsive policy, governance and cluster programs that deliver business and investment opportunities for companies.

While our discussion and, indeed, analysis begins in a somewhat academic manner, our story nonetheless ends with practical strategies and approaches to support not only internationalization of clusters, but how to develop new global business opportunities for networks of companies working within the cluster itself. Opportunities that can spin off new products and services. So please, read on!



Photo: source Netmatch workshop participants

2. Where to begin?

When we set out to develop a cluster we often have to answer difficult, complex and often, time consuming questions. And all too often it may take a year before we actually start working “on the cluster” itself.

REG LAB’s *Toolkit for Cluster Inspired Regional Development* (2008) and in our book *Engineering the Future* (2010) published by Region Midjylland, we outline some of the key considerations that need to be taken into account when developing a cluster. And “putting its companies’ to work”. But we also need to “pause” to consider the cluster’s industrial and commercial dynamic. This dynamic relates to market reach, ownership structures and, in turn, the nature of commercial and collaborative relationships between the companies that go together to make up the cluster.

3. So what sort of cluster do you have?

In the OECD’s book *Competitive Regional Clusters, National Policy Approaches* (2007) it breaks these down into four cluster typologies:

- > Marshallian.
- > Hub and spoke.
- > Satellite platforms; and
- > State-anchored industry clusters.

These typologies are defined in greater detail in Exhibit One.

So a good starting point is to ask, “what is your cluster typology?” Once you have answered this question, you’re well on the way to developing responsive governance architectures that can be tailored to the needs of your cluster, and that reflect the commercial realities of companies doing business with each other.

Equally, the opposite is also true, failure to understand these commercial realities result in inappropriate governance structures, unrealistic expectations and, as the saying goes “ends in tears!”

4. Internationalisation and creating new business opportunities for your cluster and its companies

In the following section we provide some insights on how to maximise export opportunities for companies in your cluster. Our focus is on the SMEs themselves, and not on broader framework conditions (eg. relating to policy considerations).

We explore some of the challenges working with the four different types of clusters with a specific focus on:

- > Creating effective and responsive governance architectures; and
- > Internationalisation and export development opportunities.

In many respects each cluster has its own DNA. For example, a hub and spoke cluster may have multinational companies pushing at the very frontier of new technology and in the process lifting the performance of entire supply chains and their SMEs. This is the DNA of “best practice”.

But the reality is, that a cluster may be a mix of two or even three of the OECD’s cluster typologies we have discussed.

Our challenge is to understand this complexity and, in the process, develop responsive programs to marshal the energy and export capabilities of companies in the cluster we’re working with.

Marshallian Clusters

These clusters are spatially concentrated. Specialised SMEs exhibit

a high degree of collaboration and operate across multiple business networks. Their key to success is found in the complementary business activities they take part in such as engineering companies working with an industrial designer.

Creating effective and responsive governance architectures

A high level of local ownership and working directly with CEOs have lots of advantages for getting results both for the cluster and the individual company.

But Marshallian clusters also have an “Achilles’ heel”. Speed is their weakness!

These SMEs come together in small business networks and form tight groups of between 10 and 30 companies, or even form their own associations.

The key to success is formulating strict rules for bidding for new contracts, sharing sensitive industry intelligence, quality assurance, branding, and sharing the contracts around the companies in the group or cluster.

However, these groups or clusters usually fail because they:

- > Bring in members too quickly who want a piece of the action, but don’t fully appreciate the culture and values of the cluster organisation; and
- > As individual members win new contracts, they may spin off new collaborations at the expense of the existing cluster – this can lead to the cluster splintering.

Internationalisation and export development opportunities

Run by local CEOs who are networked locally and globally (either exporting directly or providing inputs into finished goods for export), these SMEs are primed to become part of internationally oriented business, investment and cluster programs.



One of the biggest challenges is keeping up with the energy, enthusiasm and sheer entrepreneurialism of these SMEs. Let business opportunities inform the organisational structure of the cluster!

But remember—you’re dealing with SME CEO’s “on the run”. On a day to day basis they often manage everything in their company from sales to production. As the saying goes “a good game is a fast game”. So to get results—you will need to step up the pace, and keep up with them.

Hub and Spoke Clusters

These clusters are wholly dominated by several large (often multinational firms) with little if no collaboration between them. However, their suppliers and other SMEs may have strong collaborations and supply chain relationships. In fact they directly benefit from these large companies creating sophisticated demand for local “smart” suppliers/SMEs. And this provides a direct boost to regional productivity and innovation.

Creating effective and responsive governance architectures

From a broad cluster and industry governance perspective all companies (multinationals and SMEs) can come

Exhibit One: OECD Cluster Typologies

While the OECD characterises clusters in the following four typologies, in reality, clusters can have elements or traces of a number of typologies within the one cluster. However, in general, there is a dominant typology which forms the cluster.

> **Marshallian clusters** are comprised primarily of locally-owned, small and medium-sized businesses concentrated in craft-based, high technology, or producer services industries. Substantial trade is transacted between firms. Specialised services, labour markets, and institutions develop to serve firms in the cluster. Firms consciously network to solve problems, and government policy evolves to improve cluster competitiveness.

> **Hub and spoke clusters** are dominated by one or several large firms surrounded by smaller suppliers and related activities. Smaller firms may evolve in the cluster to buy from or sell to an anchor firm or to take advantage of activities attributed

to the anchor firm’s presence. Cooperation exists between small and large firms (generally on the terms of the hub firm), but noticeably absent is much cooperation among competitor firms to spread risks, stabilize markets and share innovations.

> **Satellite platforms** are industry clusters dominated by the branch facilities of externally-based multi-plant firms. These branch plants are large and relatively independent. Minimal trade or networking takes place among the clusters’ branch plants, and the incidence of spin-off activities (entrepreneurship and suppliers) is relatively small.

> **State-anchored industry clusters** are regions where the local business structure is dominated by a public or non-profit entity (eg. Military base, university, government offices). Supplier and service sectors develop around these public facilities, but these local firms are relatively unimportant to the development of these clusters.

Source: *Competitive Regional Clusters, National Policy Approaches* (2007)



(Photo source: Danfoss.com, online)

together around the table to progress high order issues such as:

- > Labour market and infrastructure constraints.
- > Skills retention and attraction.
- > Meeting the challenges of climate change and the like.

However, the cluster organisation needs to create responsive governance architectures that can make room for the SMEs to work together “without” the “big” companies in the room. This bottom up process creates an environment conducive for collaborations and trust to develop between SMEs. In other words, without the threat of “big brother” looking over their shoulder.

But remember, “big” companies can both “drive” and “undermine” cluster agendas not specifically linked to their own needs. Equally large progressive companies can be invaluable to overall cluster development.

Internationalisation and export development opportunities

The real advantage SMEs receive from working with these large companies is that they have to perform at world best practice standards. They often participate in delivering projects that are at the cutting edge of new technology.

In order for these SMEs to maintain these contracts, they therefore have to invest in their systems, technology and skills.

So focus your strategy on clustering these SMEs into “nodes of opportunity” both to:

- > Win new contracts; and
- > Diversify their market base i.e. reduce risk and, indeed, reliance on these large companies.

As most of these SMEs have high levels of accreditation and quality assurance to meet the production demands of their large customers, they have the underlying capacities and capabilities to break into global markets.

Satellite Platforms

Branch facilities dominate these clusters. These companies really do keep to themselves.

So it is a real challenge to develop the cluster.

Creating effective and responsive policy architectures

These large branch facilities are usually foreign owned and have a commercial interest in keeping local sub suppliers “under the thumb!” through threat of getting cheaper off shore suppliers.

Therefore, from a longer term regional investment and employment perspective it is important to develop cluster programs that develop the capacities and capabilities of local SMEs that can diversify both their customer and product base.

Internationalisation and export development opportunities

SME relationships with these branch facilities are often driven by price and indeed, the threat of being outsourced or outbid by lower cost rivals. This transactional culture and way of doing business forms the DNA of these companies and business culture.

Big tip – spend a lot of time with these SMEs educating them on the benefits of collaboration. Eventually some of these SMEs will start working together.

State Anchored Industry Platforms

From a cluster development perspective – this is as hard as it gets!

Creating effective and responsive architectures

Chances are that companies are “inward” looking.

But remember, these SMEs face the constant threat of privatisation and outsourcing, and with this comes significant loss of income. This is great incentive to get them to work with you!

So work on their strengths and try and get them to diversify.

Working from the bottom up with individual companies and their business networks is a good place to start. Use these results to inform the governance architecture of your cluster.

Internationalisation and export development opportunities

Driven by risk management and top down business planning—business development opportunities are limited.

Hence a long term diversification is required to get local companies into new markets.

If you’re the cluster facilitator - lots of patience and good coffee is required!

5. And remember, your companies do business with more than one company and, indeed, more than one cluster!

Clusters are messy things. As soon as we put structures around them, they start breaking out all over the place!

So go with the flow and ride the cluster wave of creativity and prosperity.

Lets therefore, begin at the “very bottom” with the individual company itself, and its CEO. Before your first meeting with the CEO, especially SMEs, please remember they’re individuals with “unique” personalities, ways of doing business and, indeed, aspirations.

These initial meetings are all about relationship building and understanding what drives the company; from its values to its financial and market strategies.



(Photo source: Medicon Valley Alliance, online)

Understand these personal, as well as company drivers, and you're well on the way to making lasting connections between your SME and the companies it does business with. So be prepared to deal with personalities – and for those SMEs who “don't get it” – “turn up the heat” and be prepared to walk away. Remember – you only have limited resources, and there are lots of other CEOs who would gladly take their place, and put your efforts, energy and collaborations to work!

We know from experience that a SME will have several key account customers and preferred suppliers.

In fact, it is not unusual, depending on the industry and the type of business it is, for a company to generate 80 percent of sales from 20 percent of its customers.

Nor is it unusual for companies to have customers spanning several industries?

For example, while a company may be a member of say CenSec, Denmark's defence cluster, we also know they have major customers in the robotics, wind and oil and gas clusters. In fact, some of these companies may be members of more than one cluster, and even more than one industry association.

Now multiply that by the 100 or so companies that are members of an industry cluster “and yes, this can become very messy”. But equally, in the right hands, this messiness is a major source of new opportunities and, indeed inspiration!

So let's think: -

- > “Customer's customer”.
- > Business networks that go beyond traditional supply chains; and
- > Cross cluster, cross border opportunities.

This is all about lifting our “gaze” and looking “upward” and “outward” because far too often we look “inward”.

Equally, we have high expectations that the individual members of the cluster will work effectively together. And when given the right projects they will.

But let's not forget, these companies also compete against each other: this is a normal dynamic—one we find in “all” clusters.

Exhibit Two: Cross Cluster Dynamics of Growth



(Photo source: CenSec)

Very big tip! Don't forget to work from the bottom up with the individual company; one on one in a confidential environment to explore collaborative and business networking opportunities.

One of the most important lessons we have learned from over a decade of developing clusters on the ground

is to be clear about what the cluster “group” needs. For example:

- > Clear articulation of the tangibles to be delivered, benefits they can all share in collectively and activities that will support their own growth and business prospects.
- > Maximising the individual business opportunities for companies in your cluster—this will inevitably mean working on business opportunities with other companies outside of the cluster itself.

It is vitally important that we recognise just how important it is to release the energy of an individual company to realise its full commercial and collaborative potential—be it local or global or both.

Individual successes grow the capacities and capabilities of the cluster, while top down “framework” activities to strengthen the broader activities of the cluster, ultimately support innovation and new investment opportunities. For example, in Exhibit Two, we can see how an individual cluster interfaces with other clusters: both enablers and customers.

From an SME perspective, the cluster organisation can open doors to new enablers, customers, and ultimately, new collaboration and business opportunities. Achieving such individual collaborative opportunities strengthens the cluster and, most importantly, builds ownership and commitment.

So—”cluster on”.



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Innovation Networks in Denmark

For many years, Danish businesses have achieved high rankings on international innovation lists. Compared to other countries, we have many companies developing new products, services and business concepts. It is the aim of the Danish government to ensure that Danish companies are among the most innovative in the world.

Every year we invest billions of Danish kroner in developing new knowledge at our research and educational institutions. It is our objective that Denmark will be one of the countries in which businesses have the best opportunities to tap into this knowledge. Innovation networks are vital to the realising this objective.

The Innovation Network Programme under The Danish Agency for Technology, Science and Innovation was created to break down a number of the barriers that hinder bridge building between research institutions and businesses. One of the most important tasks for the innovation networks is to ensure that national innovation policy is not simply a matter for large research-heavy companies; but by ensuring that smaller companies participate in network projects, and by ensuring that the networks help this target group to make use of other innovation policy initiatives e.g. innovation consortia, innovation vouchers and the Industrial PhD scheme.

The most important function of the innovation networks is to create the framework for companies, universities and educational institutions to exchange knowledge and enter into partnership projects. They are acting as match makers and knowledge brokers – resulting in faster and better innovation.

Annual Performance Reports indicate that such networks generate significant results in terms of knowledge dissemination, innovation and growth among participating companies.

Netmatch

Netmatch is the unifying platform and a support function for the innovation networks in Denmark, assisting the innovation networks on operational and administrative tasks.

This document was drafted on the basis of a workshop for the innovation networks in Kolding April 7th 2011. The workshop focused on the perspectives and challenges of exports and internationalisation. On the day, a number of innovation networks presented their experiences, results and pitfalls. And Rodin Genoff presented the networks with his input on how to approach the international agenda.

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