

# Designing Strategic Networks

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## Introduction

The recent economic- and politico-economic driven, international and regional strategy for stimulating global business competitiveness has been to encourage the establishment of various forms of strategic joint ventures and partnerships between the “knowledge-creating world” (academic) and the “knowledge-using world” (business) by way of forming human networks among the academy, business and government (Waluszewski, 2005, p. 101). Entering “the network society” concepts and entities as clusters, innovation networks and regional strategic networks are regarded as facilitators and arenas for business and innovation, as well as for knowledge development and deployment. The establishment of networks is believed to contribute to governmental growth-related goals by deploying knowledge to economic resources, while the bonds and cohesion of the different network actors provides a new range of options. Consequently, the Swedish government, as part of a strategic and proactive effort, issued a national network development assignment to all county administrative boards, called the Regional Growth Programme (“Regionala tillväxtprogrammet”).

Significant sums are invested on an annual basis in various clusters and strategic networks. This means that much is expected by the programme’s financial backers and by

official institutions, regardless of the fact that the government has no real experience of promoting the development of clusters and strategic networks. Research also shows that there are divergent opinions as to whether governmentally initiated strategic joint ventures such as clusters and strategic networks truly are a “winning strategy” for regional growth or not. Various questions have been posed by marketing scientists (such as Håkansson & Ford, 2002, Waluszewski, 2005, Waluszewski, 2006, Stymne, 2005): Should these ventures be regarded as networks, offering multiple opportunities for actors to link resources and create additional value, or as organisations that create hierarchies? Is it possible to socially construct development and economic growth? And does the establishment of a market structure automatically lead to market exchange? An argument supporting the cluster network initiative may be the belief in the possibility of finding totally new business opportunities when combining public and private sector actors and perspectives in a network constellation (Burt, 1992).

In addition to this, organising and managing strategic networks has proven to be a highly qualified management assignment, as the mission is complex and demanding due to the lack of authority and the need for commitment, when compared to the management of a company. In order to be successful, the network hub needs to apply a governing style that creates trust, and inspires confidence, motivation and commitment amongst the actors. Research and experience from regional strategic networks also highlights the difficulties in organizing and managing strategic networks, which might be explained by the complexity of the task, and the hubs’ lack of theoretical and practically-obtained experience. Management becomes difficult when there is a lack of authorization and forcible means (Waluszewski, 2005, Thyberg et al, 2006).

In other words, it is highly complicated and extremely difficult to manage and organize strategic networks. In spite of this fact, many regional strategic networks have been established with the objective of increasing the competitive edge of the companies within the network and thereby increasing the growth of the region in question over time. This is why it is imperative to gather all the existing data as to the structure and organisation of

these networks. Thus, the theme of our research is how strategic networks are designed and defining which influencing factors are the most important.

Since no information has been systematically collected on this subject, we believe that there is a need for further studies, and therefore the purpose of this paper is to provide increased understanding for the organisation of strategic networks and a more in-depth knowledge of what makes them work.

## **Theoretical framework**

### **Studies pertaining to the designing, organization and management of strategic networks**

The key to the best organisation and management of strategic networks is to integrate a wide range of activities within the framework for the network. It is mainly the hub that organizes and manages strategic networks. The hub in a regional strategic network may consist of a single person or a small number of people working full- or part-time for the network, occasionally while also holding other jobs in the regional or local administration or the private sector (Andresen et al, 2003). Individuals in the hub are likely to be people who manage to operate and move between different perspectives as reflecting practitioners, initiators, storytellers, salesmen or catalysts (Thyberg et al, 2006).

There has been little research conducted that focuses entirely on network hubs, their characteristics and tasks. Most studies have dealt with the formation and structure of “organic” networks and network relationships. A great deal of literature portraying different points of view exists on these subjects. Some focus on business networks, i.e. the relationships between companies that do business with each other (see Axelsson & Agndal, 2005; Ford et al, 2003; Håkansson & Snehota, 1995; Håkansson & Johanson, 1992). Other works deal with strategic networks, i.e. the relationships between companies and organisations that have been designed and planned with the objective of developing companies, organisations and regions (see Hallén et al, 2006 and Jarillo, 1988). A

similar area is strategic alliances (see Harrigan, 2003; Hyder & Abraha; Lorange & Roos, 2000; Bengtsson et al, 1998). Within the sphere of economics, the focus is on clusters or industrial districts (see Sölvell et al, 1993; Porter, 1990). Many publications on this subject also deal with society at whole as a network (see Lundkvist, 2001; Brulin, 2002; Borell & Johansson, 1996), the learning process, information technology and as a method (see Björn et al, 2002; Svensson et al, 2001; Birchall & Lyons, 1996; Karlqvist, 1990).

A substantial number of reports and evaluations have been published concerning networks and clusters as well (see Boye & Sandberg, 2005; Danilda & Olsson, 2005; Christensen, 2005a-b, Power & Gustafsson; IM-gruppen, 2003; Andersson & Paulsson). The various publications deal with different structural factors as well as the results and effects of networks.

Boye and Sandberg (2005) deal with the role and characteristics of enterprise with regard to clusters. They have located four basic roles: the implementer, the visionary, the cross-pollinator, and the enthusiast. The implementer is a driving force, a coordinator who has the ability to speak different “languages” (academy, business and society). The visionary sees the big picture: a highly visible person who inspires, communicates and develops ideas and who infuses energy into the network; creates visions and writes history. The cross-pollinator comes from outside the unit and makes use of their own previous experience (generally a person with practical and academic talents), sees new avenues, is fluent in many languages, is attracted to a challenge and enjoys finding their way in new surroundings. The enthusiast is a person with a life-long interest in a certain field or subject, possessing a solid background based in experience, full of dedication and is capable of infusing others with their energy. A blend of these various roles is required to generate development. In addition to this, cluster management requires the ability to see the big picture and the talent to discover and combine resources and coordinate activities. A similar line of reasoning has been taken by network researchers in terms of player relationships, resource combinations and activity links (see Axelsson & Agndal, 2005; Ford et al, 2003; Håkansson & Snehota, 1995; Håkansson & Johanson, 1992).

Nutek (2002) infers that it is important that the cluster motor has the ability to interact with different actors, making credibility an important issue. The cluster motor must not be perceived as having vested interests, and they must be perceived by the other network members as being highly competent and knowledgeable about their field of business. The tasks of the cluster motor cannot be standardised. There are many reasons for this. One important reason is that they need to possess several abilities and characteristics at the same time. One such characteristic is to be a thinker and a visionary, always pondering on how to develop the network and its members. Another characteristic would be that the cluster motor must be a designer or a strategist, possessing the ability to visualise the network and make it comprehensible to actors both inside and outside the network. A third characteristic is being an entrepreneur, a mover and a shaker. The fourth characteristic is the ability to solve problems—in other words, the motor must be able to understand the circumstances and starting points of both its network members and the actors they interact without outside the network (Nutek, 2002).

Christensen (2005b) states that the capability of process leaders centres on their ability to allocate resources and ensure that the best possible environment is created, one that will enable network members to work together in complex networks. Additionally, he infers that these complex environments place unique demands on process leaders, since it is not possible to govern autonomous network members using traditional leadership styles. An important trait that a process leader must possess is the ability to open up the network process and highlight objective facts as well as any existing preconceptions about the situation at hand in order for the members of the network to create a picture of the actual conditions. Another important characteristic is to support the cooperative processes within the network by promoting the methods, values and norms established for their joint venture. This integration support means that process leaders must have the ability to see possible player ties, resource connections and activity links (compare Håkansson & Snehota, 1995 et al.). Additionally, they must have the ability to move freely between a researching and a creative stance in order to allow new ideas to arise, while possessing the courage to trust in the process itself as a means of solving problems and/or generating

opportunities, and a traditional project management mindset that produces concrete results (without limiting dynamic, creative and innovative development processes).

In conclusion, there are few scientific studies that deal with the characteristics and tasks of hubs. However, the account above shows that several of the evaluations and reports made by Nutek deal with these issues in a concrete fashion. While the tasks of the hub are not directly expressed, other closely related functions such as the cluster motor and the process leader are explored in detail. With the assistance of these studies it can be concluded that the capabilities of the hub are basically centred on the ability to discover and combine resources, the integration and coordination of the various actors and the activities within the framework of the network. A suitable and feasible model for studies on this subject appears to be the “ARA model”, which would be useful in order to analyse how hubs organise and manage their regional strategic networks.

### **Actors, activities and resources**

Individuals, groups of individuals, parts of companies or groups of companies are defined as being the ones who control resources. In a business network, you may find actors at different levels: Executing control of activities, interacting with other actors and forging new relationships and creating new resources, and finally exercising direct or indirect control over resources. These actors are regarded as being purposefully orientated towards network control, denoting control over resources and/or activities incorporating knowledge development through activity-related network experiences (Håkansson & Johanson, 1992). Actors and relationships in business networks are loosely connected with no clearly delineated dominating force. The greater the influence exercised by one company is on its relationships, the more restricted the responses from the network will be, which eventually hampers innovation and dynamics (Wilkinson & Young, 2002, in Gadde et al. 2003, pp. 361 - 362). Actors may be defined in terms of the resources they have been able to mobilize, and the activities in which they are involved (Gadde et al., 2003, p. 362). The actors in regional strategic networks are participating in this venture for a number of reasons, such as networking, social aspects; and to seek new relationships

for their individual development and well-being. Yet another reason, and one that is fairly prevalent, is related to marketing strategy, as companies are constantly devoted to the increase of sales and profit. A third reason is tied to the individual's need to contribute to regional development, in order to secure increased social welfare and living conditions.

Activities take place when actors—through collaboration, development, cooperation or the production of resources—effect the mobilization of other resources. Actors participating in occasional activities learn how to perform these due to their design, the way in which they are connected, and their context and coherence. This learning process could be regarded as experimental. It creates routines and informal rules, which eventually give the activity a specific institutionalized shape and foundation. These activities are generally linked in some way, either directly, or in some cases by way of their key actors, even though the link does not actually depend on any particular actors (ibid). Gadde et al. (2003) argue that a company, by relating its own activities to those of their counterparts, might be able to utilize existing interdependencies among the activities of the different actors (p. 360).

Activities in regional strategic networks frequently centre on communication, formal and/or informal meetings between the various participants. Their aim is to establish relationships and promote interaction leading to new business ventures. The activities differ in character from the initiation phase of the network and throughout the project period or operating phase. This is due to the fact that network formation calls for actors to get to know each other and establish relationships, and while doing so the need is to locate suitable and advantageous areas for cooperation and development (ibid). The regional strategic network is often organized as a project including an activity plan signifying the network design and conceptual development involving conscious, purposeful planning activities bound to govern other activities.

Resources are financial or personal: Knowledge- and experience-related means; heterogeneously controlled and used by actors when performing activities. By combining

heterogeneous resources, new knowledge is generated, which creates conditions for novel and developed resource combinations, as well as development and change within industrial networks. The reinforcement of the competitive edge involves internal and external resources or relations. The staff's education, attitudes, financial clout and the actual production results are all internal resources, while a company's market situation, the overarching demand, the intensity of competition and the sense of locality are regarded as external resources. Resources can be looked upon as the results of economic processes and not only just as conditions for them. They may be multi-faceted and have their foundations both within a certain company as well as within other organisations. A company's network might be regarded as an inimitable resource and as means to access the resources and capabilities of others. Learning is also regarded as a resource, such as in the case of a business relationship that can be utilized in order to change the usage of, and thereby the value of, other resources (Gadde et al. 2003, pp.359-360). Resources in a strategic network context include designated and project-related means from the public sector or the government, as well as the monetary and manpower contributions of the network actors, and the various aspects made accessible through their business relationships outside the network. The resource situation in a regional strategic network is often created prior to the formation of the network, and it thus operates as a rather invisible, but important, governing instrument.

Strategic network development is dependant on an ongoing chain of action and interaction, the network members' expectations of future joint ventures, and the activities taking place in parts of the network that are less inclined to exercise influence. Resources and activities within a relationship are either negatively or positively connected, and anything that occurs in one relationship may have a marginal or a substantial effect on all the relationships involved (Håkansson & Ford, 2002, p. 134). Network development is set in motion through the interaction in relationships and the successive recombining of activities (Gadde et al., 2003, p. 361). Mutual trust and commitment are important characteristics, to which interaction and exchange are crucial. Social and structural bonds between the actors condition the way companies engage in activity coordination and resource exchange (Håkansson & Snehota, 1989, in Gadde et al., 2003, p.362).

Starting with the organisation of a regional strategic network, one can assume that the government's regional development application forms, and the European Union forms and their linked financial resources, governs the design of the network, as these documents contribute to the allocation of resources to certain activities, actors or clusters. A feature common to all these documents is that they reveal the different obtainable resources, in terms of money, specific support, knowledge and skilled management. The knowledge or gap of knowledge, concerning networks and network management, is another important element that indirectly or directly might affect the design, organising and operating process.

## **Method**

A case study of two strategic networks, in different fields, located in the Mid-Sweden area is conducted. This selection was made due to a unique access to these networks through continuous research proximity throughout the network development processes. The study is process-orientated and qualitative, as it comprises group interviews, the duration of which were about four hours, with two or three persons from the network hub in a semi-structured inquiry of specific measurable data that enabled conclusions from a general point of view (Holme & Solvang 1986, pp.154-155). The interview was comprised of a range of questions devised to assess the development and effects of networks in the county of Västernorrland, but also included questions about network organisation, as well as the mapping of aims, strategies, committed resources, actors, relations, activities (designed and emergent) and how these are linked. In addition to this, ongoing observations have been conducted in connection with various activities.

The case-study method was chosen as it facilitates, opens up and reveals new insights and possible interpretations as it deals with real-life situations comprising a thorough report of the phenomenon as well as a focus on production of theory. As the studied networks may be considered to be complex systems, the case study makes it possible to compare the result with results from other cases (Merriam 1994, pp. 43-66, Yin 1984, p.10).

Another argument is that the case-study analysis applies interpretation in context, which illustrates the interplay between important and recognized elements in events where it is difficult to separate the phenomenon from the context—always a problem when looking into strategic networks (Merriam 1994, pp.24-25, Yin 1984).

## **Empirical findings**

### **The BIP network**

The network was established in 2003 as a result of a locally and governmentally initiated operation promoting local and regional development and growth. An inventory of the various municipalities' trade, industry and labour markets indicated the presence of three different clusters, of which the BIP network is one, rendering a decision of assigning it priority. Local and governmental grants were issued, and actors enlisted as paying members in a community of interest linked to a company acting as the coordinator, who in turn recruited a “programme council” functioning as a managing and coordinating network hub, incorporating individuals from the public sector, the university and industry.

The BIP network is comprised of fifteen locally, nationally and internationally established companies within the fields of banking, insurance and pension plans. The main offices of these companies are often located in other regions. The network's mission was to stimulate cooperation between the participating companies and organisations, with reference to the fact that they were competitors. The anticipation and plan of the network's initiators was that interaction between these companies should generate the development of new products, the establishment of new companies and an increased number of employees within their trade.

The network possesses a clearly defined vision: To create an environment that will make the Sundsvall region one of Scandinavia's most important centres for knowledge in this

field. In order to realise this vision, the network has dealt with several important issues within three target areas, projected for the time span leading up to the end of 2005:

- The development of university education, as a first step in the form of courses which are specially tailored for the field, and in the future in other ways.
- To establish Sundsvall as the No. 1 banking, insurance, and pension plan region in Sweden, both at home and abroad.
- To promote the establishment of new companies and the expansion of existing companies by encouraging businesses to choose Sundsvall as their base.

### *Actors*

The network members, or actors, were all from similar and familiar areas of trade. Consequently, a substantial portion of the personnel involved had moved between the entities and were acquainted with each other, since they had worked together previously or had met at different trade meetings. The fact that the network actors were competitors in a local market was something they were all acutely aware of. Their commitment to the network was very much in evidence during the network launch, as almost every local company was represented at the different meetings and working teams. Over time, the network expanded, going from the original twelve actors to fifteen, where ten of these actors have been active and fully involved in the operation of the network. Some of these actors had recently relocated to Sundsvall and were interested in generating new contacts. Many of the network members were competitors, a fact that made an open dialogue difficult. Due to this, the actors had a hard time developing services, both of a shared and in-house nature. Practically all of the companies involved in the network were governed and controlled by management not located in the Sundsvall region. This generated a common incentive: Pulling together to promote growth and change on the local home market. In spite of this aim, the competitive situation occasionally affected the actors' involvement in the network, as it was difficult for them to see the short-term benefits of this network venture. This problem was addressed early on, and it was dealt with in this fashion: The network hub and the programme council explored and followed up the expectations of the actors on a continuous basis. The study showed that there were three levels of expectations: the individual's own expectations, those of the

company/organisation, and those of the network. Making this fact visible during group sessions, paved the way for a measure of “tolerance” that in turn was important for the dialogue between the actors and the confidence they felt. This systematic method facilitated the planning and the implementation of network activities.

### *Activities*

The network actors met and initiated their joint venture by centering on three assignments, or activities. The first task was to develop new university courses and programmes and the second was to market the network nationwide. The third assignment was to attract the establishment of new businesses, and/or to persuade existing businesses to expand their present work force locally. The actors selected their preferred constellation and started working. This method created favourable conditions for project-orientated interaction of a highly tangible nature between the actors from the university and the public and private sectors. In addition to the previously mentioned assignments, different activities were launched in order to build up confidence between the network members and thus foster commitment. The three different groups met their objectives during the first year, resulting in the initiation of a business management programme (KraAft) aimed at developing their own businesses together. The BIP network has received a great deal of coverage by both the local and national press as well as by trade magazines and internal newsletters. The network venture has led to new, specifically tailored university study programmes—during 2005, two new courses of study were introduced – Customer Relationship Management, 5 units, and Business Relationships, 10 units. In addition to this, a marketing campaign for these fields was initiated and the actors in the network forged a dependable line of communication. In collaboration with the Mid Sweden University, the network has also begun planning a new research institute within their field that will be located in Sundsvall. The companies in the networks continuously conduct extensive and costly internal enrichment programmes for their personnel. The development of university-level courses that cater to the needs of the network is a matter of great importance when taking such factors as costs, competitive edge and knowledge enrichment into account.

One important objective materialized: To develop activities that inspired mutual trust and to instate a good relationship between the various actors within the network. Another important objective was that the network actors would only collaborate on growth potential issues, and products that were neutral with regard to the competitive situation; the reasoning behind this being that it would encourage a more widespread involvement in the network.

Some 100 new job opportunities have been created in Sundsvall due to the efforts of the network. The network has also encouraged management groups to relocate business operations to the Sundsvall region. And in addition to this, the network has pursued issues dealing with engaging the interest of the network actors' associates. The number of network activities more than tripled, four product development processes have been initiated, and seven service products have been developed. The network venture has had a positive effect on the field. Articles have been written in national publications that have generated positive attention for the actors of the network and their activities. The management groups of the various actors have become aware that a far-reaching and quality-enhancing growth process has been initiated in the Sundsvall region, a process they are eager to be a part of.

### *Resources*

The network hub was a council consisting of individuals from the university, the business world and the public sector, in which the latter was the operating hub in terms of coordinating and communicating information to the network participants, taking charge of administration and representing the network at different meetings. This hub was a kind of "motor", driving the process forward while the programme group worked as an idea generator and dialogue partner. As the individual representing the university was also engaged in strategic network research, current experiences and results concerning actor expectations and commitment were referred to the operating hub and the programme council. This rendered an expanded consciousness regarding qualifications crucial for managing development processes in strategic networks. The network hub was highly skilled with regard to administration, legal matters and at providing written information to the participants. Characteristics that network members emphasized time and time again

as particularly positive and as necessary for smooth network operations. In addition to this, the network hub was a driving force, a trait that expressed itself initially as “taking charge of” processes—a situation research has shown to have certain inherent hazards, since it may deprive other participants of the opportunity to display drive and initiative, and cause them to experience a lesser degree of accountability as well. However, the hub displayed good social skills in spite of this initial move towards control.

The network is comprised mainly of large public and private actors, where many of these are corporation groups participating on the national and international markets, and possessing substantial resources for personnel enrichment as well as having extensive knowledge and experience of how to best pursue the markets and development.

Many of the network actors are paying members of Åkroken Science Park AB, and have in this manner contributed to the development of the network in a purely financial way as well. Additional, and significant, resources have been provided by the Municipality of Sundsvall, the County Administrative Board of Västernorrland and the European Union.

### **The Fibre Network**

The Fibre network has a double source of origin: The proximity of the network to substantial cellulose fibre resources for processing, and the proximity to companies and individuals involved in the development of products and services within this field. Taking this into account, the Åkroken network sees it as their mission “to strengthen the bonds between various actors, in order to achieve productive networks with the capacity to enrich people and businesses” in a manner that will increase their competitive edge and enhance regional growth.

This network was founded in January 2004, when some eighty representatives from businesses related to the forest industry in the Sundsvall region were gathered at the Mid Sweden University in Sundsvall. Many of the participants were sub-contractors to forest product giants SCA and Metso. The CEO of SCA Forest Products AB, Kenneth Eriksson, opened the session by posing a question: Would it be possible to implement a joint venture of some kind that would strengthen the entire field within the region? This

became the network theme. This initial meeting was followed up by a questionnaire where companies were requested to state their point of view, and as it turned out, the companies were interested in pursuing such a venture. The overall objectives of the network were discussed and determined. They are as follows:

- To attract the most knowledgeable and skilled personnel in the region, and to promote the deployment of knowledge between the actors in the region.
- To enhance value by promoting the deployment of knowledge between the region's actors within the fields of cellulose and fibre technology.
- To find forms for resource sharing, with regard to knowledge, education and enrichment, and to create ways to make this exchange of know-how readily available to all networks actors.
- To create new products, services, businesses, relationships between actors and markets.

Twelve network meetings were held, where the primary objectives were to get acquainted and to explore various routes of collaboration, as well as to plan a small-scale trade fair and enrichment programmes, and to find a name for the network. High-priority areas during the period 2005 to 2007 were: Business development, company development, network construction and the FoU research and development unit (Åkroken Science Park AB, 2005)

Today, the network is comprised of 58 actors that work together, developing new services, products and markets for the forest industry. This network is similar to the BIP network with regard to its construction, since it consists of a council made up of representatives from the various network actor organisations. The hub consists of three individuals, where one person has a more prominent role as an operative coordinator.

### *Actors*

Some 30 individuals are actively engaged in network operations. The network is comprised of both global and smaller actors, and many network members feel that there are great benefits to collaborating in this manner. The network includes a significant portion of the basic “flagship” industry of the Västernorrland region. Several of the actors are successful on the international markets, and many conduct cutting-edge research

within fields such as fibre technology and mechanical pulp at the Mid-Sweden University in Sundsvall and the FSCN (Fibre Science and Communication Network). Since the network's initial base for recruitment was two larger companies within the same field, several of the actors already knew each other when the network was founded. The presence of large companies—known as “draws”—which provide new business opportunities, has effectively attracted new recruits to the network.

The network has focused on promoting good relationships and collaboration within the network. The starting point was to instil the actors with a sense that the network was beneficial to them, that they made a contribution to it, and that network objectives were easy to understand. The network hub considers these factors to be crucial to the development of collaboration within the network.

### *Activities*

During network meetings, various issues and themes have been dealt with. Some examples of these are forming the mission, getting to know the other members, creating presentation sheets and a small-scale informative exhibition, arranging and participating in study visits and team-building exercises. Certain network meetings have also been arranged where the actors have made brief presentations of themselves. During the first year, twelve meetings were arranged and all 58 actors were present on at least one of those occasions. Ten concrete activities were conducted by the network, involving 31 actors and 240 individuals. The number of meetings decreased during the following years, when the focus shifted to training and enrichment with the objective of creating a framework for future concrete collaborative ventures. Lately, however, the number of participants has increased, suggesting that more individuals from each network actor have been involved. Some educational activities that were initiated during this period were two new business development programmes such as KrAft, which involved eleven network actors and 20 individuals that have met on six occasions in all. The purpose of the programme was that the actors should, signally or together, develop new products, services and ideas. A less extensive business development programme that was adapted

to accommodate actors with lesser resources, called SPETS, was started at the same time and involved some 30 actors.

Through the years, some seventy or so new associates have been employed by the network actor's organisations. Another result of the network collaboration efforts is that a research training programme with twelve doctoral students has been opened. It has been funded (approximately SEK 34 million) by the Mid Sweden University, KK-stifelsen (the Knowledge Foundation) and the forest industry represented by SCA, Metso, EK, M-Real and Holmen. One purpose of this training programme is to obtain new forest-related products through collaboration between researchers and the forest industry. During this period, a new company has been created, due to one of the network actor's existing operations hiving off.

This network venture is the subject of a follow-up initiated by Vinnova that aims to study the network's collaboration with FSCN (the Mid Sweden University Institute: Fibre Science and Communication Network) and how it leads to business development. This follow-up is conducted by researchers at the Mid Sweden University.

### *Resources*

Within the network there are actors that possess substantial resources with regard to knowledge, know-how, and financial muscle. Several of the companies are also known for initiating and financing developmental projects which several smaller actors, as well as the public sector and the university, are invited to take part in. In addition to this, the hub members possessed different skills: One member had special coaching skills, while another had extensive experience of commercial business. The third member of the hub was a source of inspiration, a storyteller who also created systems and worked on obtaining resources for the network. The person in the hub who acted as a coordinator was also a highly competent administrator with regard to maintaining order and being conscientious with regard to communications with network members both in face-to-face situations and by continuously following up ongoing business. The person in question consistently displayed humility and sensitivity with regard to the actors in the network.

The financial resources for the network were supplied in part by the two business development programmes to which the KK foundation, the County Administrative Board and the network actors contributed resources; and in part directly to the network by the Åkroken Science Park AB, which is funded by way of membership fees and grants from the Municipality of Sundsvall and the County Administrative Board of Västernorrland.

## **Summary, discussion and conclusions**

Both networks have had access to ample resources with which to develop processes and collaboration activities. One such manner of financial support is generally regulated in the respect that it works on the assumption that there is a project manager, an action plan for the activities, and clearly delineated objectives and descriptions of how the network collaboration is to be conducted. The most probable result of this is that such networks will be more highly structured and will, in turn, provide better opportunities for success. Thus, the following hypothesis may be formulated:

*H1: The more public resources that are involved, the more well-structured and well-designed a network will be.*

Networks that are, to a great extent, run with the aid of official funding also appear to have express strategies for how the actors should take part in the network. In one case (the Fibre Network), a major actor was the attraction, and in the other case (BIP), the benefits of networking were emphasized. In the event that a network has a sizable actor—a draw such as SCA and Metso in the Fibre network—they will act as a magnet, pulling in other smaller actors. In part, this is because the large actor legitimizes the network concept and its operations, and because the smaller, recently recruited, actors expect to supply the big actor with products and services. It is often the case that the large actor shoulders a lot of responsibility and acts like a motor in the development process of the network.

*H2: The more public resources that are involved, the more explicit strategies will be with regard to how to motivate and activate actors in a network.*

The size of the network actors is likely to affect the results of a network. Large and well-resourced actors generally have the financial backing to take part in various network activities, but since they generally have developed relationships and collaborations with other actors, it may be difficult to get them to get involved in new networks. A smaller actor with fewer resources at their disposal will have less financial “elbow room”, but they will be more highly motivated to actively participate in regional networks.

The BIP network fundamentally consisted of fifteen actors that were present to a varying degree at the network meetings due to their busy schedules and since they did not have the option of being fully in charge of setting their own priorities: “When the big boss calls, you get moving.” The Fibre network, however, had more actors of various sizes. They generally had more autonomy and a greater need for collaboration, which meant that they were able to take part in more network activities.

The hubs worked in different ways to facilitate the collaboration process within a network. Both networks mentioned in this paper have focused on inspiring confidence and promoting good relationships between network actors.

The composition of actors and their resources differs between the two networks. The design of the BIP network is characterised by the similarity of its actors. They all work in the financial sector, and they belong to large corporation groups with main offices located in Stockholm, or some other large city not in the same vicinity as the network. In addition to this, the representatives of the actors are very similar as well. Most of them are business economists or economists specialising in financial dealings. In the Fibre network, the actors are much more unlike. They work in different fields and employ different technologies. The actors have a wider range of size, and most of the companies have main offices in the same area as the network’s home base. However, the characteristics of its representatives are similar, since most of them are technicians and

engineers. Expressed differently, one could say that the BIP network is a less heterogeneous network, while the Fibre network is a more heterogeneous network. What is the significance of these design differences?

Another important observation is namely that the number of individuals involved in the network and their commitment is different in the two networks. The BIP network possesses a small number of extremely dedicated individuals. Their focus is that the network itself is to be developed and become successful, not the individual actors themselves. In other words, the commitment is focused on a common objective, a “greater good”. While the Fibre network is comprised of many committed individuals. Their dedication is based on the objective that their own company, either on its own or along with other actors, is to be developed. In other words, their efforts are not really characterised by sharing or communal benefits. Consequently, there appears to be a connection between network design in terms of the degree of its heterogeneity and the number of dedicated actors and the commitment focus. Naturally, it makes sense that a less heterogeneous network must, say, for competitive reasons, have objectives that are more neutral with regard to the competitive situation than otherwise. And it makes just as much sense that a more heterogeneous network, where less competition exists between the actors, attracts a large number of committed individuals who are more focused on developing their own businesses than the network in its entirety. Thus, the following hypotheses may be formulated:

*H3: The less heterogeneous a network is in design, the lesser the number of individuals who will be attracted to it, and they will be more committed towards developing the entire network.*

*H4: The more heterogeneous a network is in design, the greater the number of individuals who will be attracted to it, and they will be more committed towards developing their own businesses.*

In more heterogeneous networks, there is generally a great deal of elbow room, and the actors are able to be very open in their dealings. They quickly gain confidence in each

other and thus are able to develop targeted products and services together much more quickly than in a less heterogeneous network (such as the Fibre network). The less heterogeneously designed networks are not as open-minded, and it takes more time to establish a productive climate for collaboration.

Accordingly, the networks in this study are designed differently and the actors display different degrees of commitment. Some are extremely keen, while others are more passive. Regardless of their level of commitment, most actors conceivably play an important part in the network. Each individual actor has a certain function, and makes a contribution to the entire function of the network. Some actors have a more important role, and the network would be unable to function without them. A network requires actors that have a kind of “life-sustaining” function, alongside other actors that do not have a role that is quite as prominent. When all the different functions are in place, and are running smoothly, the network is in balance. If a certain function is removed, the entire network, or parts of it, will be affected and change. Research conducted on strategic networks has found that actors have different important functions, tasks or roles.

At least three different roles exist. The IM Group (2003) calls them the “three D’s”: the Designer, the Driver and the Delegate. The designer is a very important actor who designs and creates the network. The importance of the designer gradually decreases as the network becomes more self-propelled or when the Driver emerges as a key actor. The main task of the Designer is to prove how excellent the network is to financial backers and the other members of the network. In addition to this, the Designer brings the actors together, makes a clear declaration of the values involved and devises collaboration schemes.

The second role is the Driver. Generally speaking, the Driver takes over after the Designer, and occasionally these two roles are played by the same individual. The Driver may also be a consultant who occasionally, but not always, is a project manager. The Driver is truly a driving force, an individual who is passionate about the concepts governing the network, and who might even put in the work without really being paid.

The third role is that of the Delegate. This is the most common and prevalent role within a network. It is the composition of these delegates, or participants, that characterise networks as tools for growth compared to other constructs. Delegates can be individuals or organisations. Some Delegates are more important than others. Certain Delegates carry more weight and have more authority than others. It is also fairly common that a small number of Delegates form sub-groups within the network. They interact to a greater degree with each other than with the other Delegates, they are simply more active. The active Delegates play an important part in the development process, since they are highly committed and often partaker in a lot of give and take, while the more passive Delegates may not contribute as much to the group. Some take on the role of being “free-riders” as well. They rarely contribute anything at all; they prefer to take what appeals to them without giving anything in return. In spite of their fairly self-absorbed attitude, it is possible that their presence also contributes to the balance of the network.

The Åkroken Science Park can be regarded as the organisation that designed both networks in this study. Individuals from this organisation started the networks, but the responsibility for running them has gradually shifted to the most passionately dedicated individuals within the networks. They are Drivers. In other words, actors who are not Drivers, are Delegates. They span the entire range of being passive to active. That’s when it becomes interesting to connect these roles with the previous discussion on network design type. A previously mentioned assumption is that less heterogeneous networks attract a lesser number, but more highly committed individuals. In other words, this would mean that a network of this type would contain few Drivers and a larger proportion of Delegates. And, likewise, a more heterogeneous network would consist of several Drivers and a lesser proportion of Delegates. Thus, the following hypotheses may be formulated:

*H5: The less heterogeneous a network is in design, the less it will consist of Drivers, while the proportion of Delegates will increase.*

*H6: The more heterogeneous a network is in design, the more it will consist of Drivers, while the proportion of Delegates will decrease.*

Both networks have worked in a highly systematic fashion to inspire confidence and promote good relationships between the network actors. While the Fibre Network initially focused on frequent meetings so that its members could get to know each other, the BIP network started dealing with concrete activities as early on as their third meeting. Some of the Fibre network meetings were arranged in order to organise and recruit new actors, while there the BIP network had fewer opportunities to expand the number of its actors, since the number of actors within this field is not very high. They have focused on mobilising the internal resources of the network. This has also resulted in a kind of marketing campaign which has legitimized the members' network efforts.

In the cases where there are resources available to fund activities, the opportunities for collaboration between the various actors increase. This observation corresponds well with the research conducted in this area that maintains that if the actors interact with each other during a longer periods of time, it will increase the possibility that they will gain confidence in each other—a prerequisite for successful collaboration (see Morgan & Hunt, 1994 and Håkansson et al, 1982)

The specific business development programmes have speeded up the process of inspiring confidence and fostering good relationships between the various network actors. In turn, it has been possible to start up projects more early on. Networks show that allocated resources and clearly defined strategies, solidified as shared business development programmes or projects geared to specific needs, render the development process more efficient and allow actors to get to know one another more quickly. They also have tools and support with regard to the developmental process, something that is particularly important when the actors involved have not worked together previously.

The strategies of the network actors and the amount of resources they are able to sink into the enrichment of their own personnel will affect the results of the network. This is due to

the fact that actors that create a culture of learning will have an easier time assimilating new information, thereby increasing their reception capacity, and with it, the ability to adapt to new situations (Cohen & Levinthal, 1990).

The BIP network and the Fibre network have both contributed to an increase in employment. The BIP network has generated nationwide interest in the activities they have conducted and in their projected activities as well. By shooting for a vision that involves becoming Scandinavia's leading centre for knowledge, the BIP network has caused quite a stir. A vision such as this indicates that the network already has access to unique knowledge, and that much effort will be put into making the Sundsvall region into a centre for comprehensive knowledge in this field. Centres of this type usually make it easier to recruit skilled personnel.

In conclusion it can be said that networks have very different appearances. Networks have their own stories, histories, objectives, sizes, technologies, organisations, working routines and cultures, etc, Networks consist of a number of network actors which in turn have their own stories, histories, objectives, sizes, technologies, organisations, working routines and cultures. In addition to this, each actor is comprised of individuals who come from different backgrounds and have different experiences and objectives, and so on. In other words, there are several dimensions that are different, and which create extremely complex environments. Networks are highly specific and complex environments. No network is alike. The networks in this study are no exception. However, it has been established that the actors and the resources of the BIP network are fairly uniform, while the actors and the resources of the Fibre network are considerable more unlike. The composition of the networks results in substantial differences in the active and passive actors, and it will affect the direction the committed members choose, whether it is for the common good or for the good of individuals.

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