"Insightful Encounters - Regional Development and Practice–Based Learning"
Conference on Regional Development and Innovation Processes
March 5th-7th, 2008, Porvoo - Borgå, Finland

[Theme 4.]

GOVERNANCE AND LEARNING IN INNOVATION NETWORKS

A tool for support and evaluation of innovation networks

Hofmaier, Bernd
Prof.
Halmstad University College
School of Business and Engineering
P.O. Box 823
SE-301 18 Halmstad
Sweden
E-Mail: Bernd.Hofmaier@set.hh.se

Eriksson, Helena
Halmstad University College
School of Business and Engineering
P.O. Box 823
SE-301 18 Halmstad
Sweden
E-Mail: Helena.Eriksson@set.hh.se

Biography of the author(s)

Bernd Hofmaier is a sociologist, working and teaching in the field of work science; since twenty years engaged in industrial and regional development projects. Interested in the creation and development of innovation networks and the actors (firms, organizations) capability to collaborate in such collaboration efforts. Helena Eriksson is a PhD student in sociology; her work is focusing on the transformation of a community from a rural/industrial setting to the knowledge society, including the establishment of a regional university college.

Abstract

Collaboration formations such as innovation networks and triple helix formations are becoming important instruments of economic policy and can be formulated as guiding visions. These guiding visions can be effective for turning the view towards specific goals and point out a direction, but they do not help us to understanding what it means to collaborate. With the specific characteristics of collaboration formations there is a need for ways to support the organization and management of the network. The "Support and Evaluation Tool for Innovation Network" (SEVIN) is here suggested as a method to support the collaboration processes through self-evaluation and empowerment.

Keywords

Innovation network, evaluation, learning, governance, collaboration formation

NEW CONCEPTS – NEW ACTION PROGRAMMES

The last decade, varieties of new concepts found their way into the academic discourse and are used by politicians and peoples in civil administrations. Concepts like innovation or innovation systems, cluster, development coalitions, and more unique concepts like triple helix are used as components of a common rhetoric. In the academic discourse, concepts are used and treated as scientific concepts with none or little normative blend. Innovation system, cluster or triple helix formations are used and interpreted as more or less coherent theories but can in addition result in useful recommendation to businesses indirectly. For politicians and practitioners those concepts are used much more as recommendations or part of political programs. In this occasion it is more a matter of political rhetoric. Politicians try to achieve economic growth or perhaps better, sustainable growth and uses particular tricks to persuade the citizens. It is not only rhetoric in the sense of influence and of convincing us about the blessing of economic growth, even in the discussion of the means for achieving such growth there is much rhetoric. But there is no one which has the right solution and can give clear advice how this could be achieved. Instead politicians and officials in departments and civil authorities are using certain concepts with the purpose to point in a certain direction and encourage the citizens to follow. The question is, if we are willing to do this. Obviously we are not entirely against these invitations and are attending our politicians and others when they encourage us to collaborate or coordinate innovation system or cluster. And we follow them even when they want us to organize strange figuration like triple helix, e.g. formations in which the business sector, universities and civil authorities develop relationships with each other (Etzkowitz and Leydesdorff 2000), (VINNOVA 2006)

It is however not our intention to make fun of using such concepts. Politicians have constantly used catchwords and rhetoric tricks in order to persuade us to follow them. A closer look show that concepts like innovation system, cluster, but also other concepts like learning regions, are a kind of *guiding visions* or what in the German language is known as *Leitbild* (Dierkes, Hoffmann et al. 1992). Such guiding visions fill an important function. They are pointing into a certain direction and are leading to a distinct goal. They gather peoples intentions and practical knowledge about what is feasible and desirable, e.g. a form of *collective projection*. Guiding visions are collecting different actors understanding and interpretations in a joint field of direction, something which can be called *synchronically pre-adaption*. We adapt and commit to an idea without openly questioning the applied concepts like innovation system, cluster, or triple helix formation. Finally such guiding visions replace not yet existing common systems of rules and logics for decision making between representatives of different knowledge cultures, something which one of the exponents for this idea calls *functional equivalent* (ibid. p 42). Simplified, this means that established knowledge cultures have developed a discursive system for rules and conventions which is used for deciding what is right and meaningful. If different knowledge cultures want to collaborate and producing something jointly, different meanings and logics for decision making meet and when they are missing a common meta-culture from which they can develop common systems of rules and logics for decision making, the risk is a "discursive collapse" (ibid. p. 49). Actors should instead create provisional opinions (evidence-, argumentation- and decision procedures). To illustrate this argument in a situation which everybody has met, we should only remind the reader about what happens when a newly graduated student comes to a firm and is expecting to discuss a joint project. The possibility for misunderstanding and the need for being really understood from both sides are apparent.

What does this more or less abstract argument suggest? Actually it is quite simple. The idea to create and participate in an innovation system or triple helix formation means that there are aims which obviously have to be interpreted but which we experience as feasible to create and which we see as desirable. To be true, we do not know precisely how to achieve the goal but the ambiguity of the guiding vision is forcing us to reflect on aims and means of the joint enterprise. In discussions across professional borders and knowledge cultures, we present our different opinions and validate them. But the guiding vision in addition implies that we establish preliminary rules and ways of behavior between different knowledge cultures like universities (researchers, departments) and companies. One realizes very rapidly that guiding visions can be effective for turning the view towards specific goals and perhaps also to guide people in a desirable direction, but concepts in this sense are not very suitable for analyzing and understanding what it means to collaborate, to build up and maintain relationships as for example learning or development of joint knowledge in jointly work in innovation networks, innovation systems or clusters.

WHAT HAS INNOVATION SYSTEM, CLUSTER OR TRIPLE HELIX FORMATION IN COMMON?

The least common denominator is the one when a limited amount of individual or collective actors develop relationships between them. Such relations can be relationships used for information exchange, buy and sell relations, development relations, and others but they are always also learning relations. In such a perspective an obvious system view is used and such a perspective is emphasizing collaboration in which innovations are produced. Innovation systems are seen as systems, but also clusters or other collaboration efforts can be viewed in this perspective. At least in regard of innovation system and triple helix formations the aim is to produce innovations which are expected through collaboration. This can be product- or process innovations, even if those at present are more and more melting together. The demand of collaboration is sometimes also expressed in terms of being competitive, e.g. to have the capability to bring new or better products faster and more cost efficient to the market than other competitors. Without going into depth in different variations of such systems, we can notice some common characteristics, which even if they are created for innovation networks, most of them are also characteristics of other collaborative groups where different actors are coming together:

- Innovations are created through interaction between individual and collective actors, which means they are created by a social process. Actors are driven by interests, resources, power and strategies. They are following different logics of actions and the internal criteria for success are different. (A typical example is scientific research were qualifications and success are measured by published articles.)
- Actors are embedded in structures which make action possible but at the same time are structures restricting actions (Mayntz and Scharpf 1995). In an analysis one has to link structure and actor approaches.
- The structural factors include in addition socio-cultural aspects which often are approached in regional and national studies of innovation systems. Especially clear is this in the approaches which see innovation systems embedded in a regional context. An example is the concept of *regional innovation milieus* or *learning region* which is used by many researchers (Maillat 1998), (Asheim 2001).
- Innovation processes are recursive processes which imply that relationship between the actors should build on trust and therefore need continue over time. In other words, such relation has to be sustainable.

- Innovation processes are collective learning processes. Individual actors are participating in and are contributing to this learning process. They are carriers of knowledge and their knowledge should be made useful or in other words, their knowledge should contribute to the innovation process. Important questions are (1) who is participating, and one can ask what kind of knowledge is needed; (2) is there the "right" mix of knowledge or forms of knowledge, e.g. "scientific knowledge" vs. "practical knowledge". Even the combination of "implicit" and "explicit" knowledge is important. Implicit knowledge is for example tied to a certain person and needs a certain situation or context for making such knowledge explicit. It is therefore important to put relevant actors together and create the opportunity to make their implicit knowledge useful. Such a learning process is a collective process, and a communication process where the most important medium is language (Gustavsen and Shotter 1999).

Organization and management

One conclusion which can be drawn from collaboration formation with such specific qualities is that they can not be organized or managed traditionally. Such formations have to be organized and managed in concordance with their essential qualities and traits. This implies for example that there is no single actor which has the knowledge or legitimacy to lead an innovation network. It is even more or less unworkable to lead an innovation network as if were it a company, e.g. structured and with clear rules for leadership, rewards and sanction. Rather the management is a question of trust, negotiations and in exceptional cases agreements. How innovation networks should be organized and managed is left to the innovation networks themselves and both handbooks and more theoretical literature is being published (Huxham and Vangen 2005). To organize and manage such networks is also the more or less official policy of single countries or the EU. Therefore one can expect the same problems in all such attempts.

This was the starting point for a project within the EUs Strata program (COVOSECO) where researchers from five countries co-operated in developing a tool for Public-Private-Partnerships (PPP) (Deitmer, Davoine et al. 2003). The organizational form of PPP includes different aims, even when in Sweden the term PPP only denotes a form of financing public projects when public means are missing, e.g. infrastructure projects. Originally this tool was used as part of an evaluation approach of the Bremen program "Arbeit und Technik, Landesprogramm Bremen" (Deitmer 2004). In this case the tool was developed for evaluation purposes and was constructed in a kind of reaction against conventional evaluation methods. These approaches were conceived as not appropriable because of their focus on effects and not processes (Fetterman, Kaftarian et al. 1996). Empowerment evaluation, which was the customary term applied, was defined as: "…the use of evaluation concepts, techniques, and findings to foster improvement and self-determination" (ibid p 3).

The approach was conceived as appropriate for such collaborative formations where self-determination and learning was seen as central. In the project COVOSECO, the term *empowerment tool* was used and the tool was developed and tested in five countries. The consideration for the development of the evaluation tool was that its usefulness for PPPs or networks should start from the following principles (Deitmer, Endres et al. 1997):

- *Participation* – by sharing the evaluation work in all phases of the evaluation, legitimacy and identification with the results is guaranteed. Differences between individual participants and the network as a whole can be used for steering.

- *Discursivity* – the evaluation process is based on dialogue principles which permits to counteract misunderstandings but can also be used for mirror effects, e.g. reflecting different positions and arguments.
- *Reflexivity* – through the discursive design of the workshop, the emphasis is also on reflexive learning. Participants are interpreting and make reflections about strengths and weaknesses of their own process. The results of the learning process can contribute to a kind of new orientation or reframing of the strengths and weaknesses and in the direction of joint and individual project goals. It also contributes to the raising of the internal capability for managing their work.
- *Multiple perspectives* – viewing and analyzing central elements of the evaluation subject from a plurality of perspectives is a way of reducing the risk of erroneous interpretations.
- *Sustainability* – the aim of the evaluation lies in to create and support sustainable structures for innovation activities, e.g. to support the networks own dynamic over the limited project time, improve the innovation competence and improve the milieu for innovations.

When working with the improvement of the method we observed that the tool also can be used as *support function* and we also noticed that the term "empowerment" at least in Scandinavian countries can cause misunderstanding. We therefore decided to use the term "Support and Evaluation Tool for Innovation Network" (SEVIN) which coincidently also can be used as the Swedish acronym for the method. The SEVIN method has since then being used in different innovation- and development networks in Sweden.

EVALUATION PROCESS IN THREE STEPS

There are some assumptions that are of importance for the SEVIN method. Evaluation is looked upon as based on experiences and a formative activity witch offers the participants a chance to reflect on there own work and collaboration in the network. The result of such an evaluation process is expected to be of great importance for their future work. The SEVIN method further implies that the participants have a greater opportunity to develop the common work through reflection and by that also self-evaluate the collaboration process and the results of the work in the network.

The evaluation process is lead by a team which is independent from the network. Ideally the team should consist of a facilitator or moderator, a secretary and one observer. The whole process is composed of tree steps:

1. *Evaluation workshop* which is lead by the external team and where the participants in the network, are weighting, assessing, discussing and reflecting their work starting from a number of criteria.
2. *Analysis* of the results in which the workshop is evaluated by the team and the result is written in a minor report.
3. *Feedback meeting* where results of the analysis are presented by the team with the aim that the network will use the results for development of the network and improvement of their future work.

These tree parts will in the following be discussed further. The description of the method is general, in practical use the SEVIN approach is depending on the networks aim, composition, participants own interests etcetera. The participants are making a self-evaluation – under the leadership of a moderator – of their own work. One of the characteristics of collaboration in forms of networks is the continuous negotiation process which is necessary for inclusion and balancing the different actor's motives and interests. The tool is designed for stimulating the

search for solutions of problems in the activities of the network. It stimulates the discussion between different actors about for example goals and how they can be achieved in the best way. The process is organized in order to make – at first hand – unspoken clash of opinions and differences visible, but also to make similarities visible. To bring up such differences and similarities regarding goals and expectations etcetera can help the network to improve their work. The participants are in other words making a kind of self-evaluation.

Evaluation workshop
The aim of the workshop is first of all to stimulate the participants to discuss central elements of the activities in their network. The workshop lasts at least for five hours but should preferably be for a whole day if that is possible. The session can start in different ways: a discussion can start about which criteria's the participants see as relevant and would like to discuss during the workshop or the meeting can start out from pre-defined criteria's which mirror more general aspects of collaborative work in networks. There is also the possibility to start in a third way with the pre-defined criteria and discuss instead which kind of sub-criteria the participants will use.

The pre-defined criteria's are based and defined upon factors that in the COVOSECO project were found to be of great importance for processes in networks in general, the main criteria's are:

1. Goals
2. Resources
3. Project management
4. Partnership development
5. Communication and learning

During this session a questionnaire forms the basis for the following evaluation and contains criteria's and sub-criteria's and a possibility for the participants to weight and asses the criteria's. The structure of the pre-defined questionnaire is the following:

FIGURE 1
Questionnaire form for the participants to weigh and asses the criteria's.

Weighting of main criteria (%)	Main criteria	Sub-criteria	Weighting of sub-criteria (%)	Assessment of sub-criteria on a scale ranging from 1 (poor) to 10 (excellent)
	1. Goals			
		1.1. Project Goals are clearly defined		
		1.2. Project Goals are achieved		
		1.3. Goals for individual partners are transparent		
		1.4. Goals for individual partners are achieved		
			∑ 100 %	
	2. Resources			
		2.1. Enough financial resources are available		
		2.2. Enough physical resources are available		
		2.3. Enough professional capacity is available		
			∑ 100 %	
	3. Project management			
		3.1. Clear allocation of tasks		
		3.2. Fair distribution of work and yield		
		3.3. Clear rules and procedures		
			∑ 100 %	
	4. Partnership development			
		4.1. Development of trust		
		4.2. Social competencies		
		4.3. Organisational or decision making competencies		
			∑ 100 %	
	5. Communication and Learning			
		5.1. Good internal communication		
		5.2. Good external communication		
		5.3. Learning is encouraged		
		5.4. Innovation competencies are improved		
			∑ 100 %	
∑100 %				

Irrespective of which criteria's are used, if the group has made their own criteria's or if criteria developed as part of research projects are applied, the important part of the introduction of the workshop is to reach consensus about what the criteria's stands for.

In the next part of the meeting the participants then rate the main and than the sub-criteria. They are weighting the criteria, e.g. how important they are in the collaboration right now. Initially

each participant does this alone, and then the individual results are presented graphically and discussed. Here differences and similarities of the weighting can be highlighted and discussed. Important is how the participants, coming from different organizations and cultures, are assessing the importance of the different elements in the network collaboration. Consensus is possible but not necessary, more important is that participants can present arguments which could lead to a consensus as a base for the future work. In this way a learning environment is created in which individuals try to understand each others motives and attitudes and at the same time create a base for joint action.

After weighting and discussions, the participants evaluate the main and various sub-criteria in a similar way. In other words, they assess how well the criteria's have been achieved in the project. To give an example: to what extent has sub-criterion "Innovation competencies are improved" been achieved? Marks similar to school grades are awarded, i.e. on a scale from 1 to 10 with 1 being the poorest mark and 10 very good. As in the fist stage of the workshop, each participant first awards marks on her/his own. Then the individual results are presented and discussed. The result is either consensus on the evaluation or an agreement on non-consensus. It should here be emphasized that the numbers used are only indicators of differences and similarities and are used as a base for further discussions. The following figures are examples from one of the workshops.

FIGURE 2
Project management weighing, deviations are marked

	Discussion consensus	Mean	Standarddevaition	Highest	Lowest	*Name 1*	*Name 2*	*Name 3*	*Name 4*	*Name 5*	*Name 6*	*Name 7*
3.Project management	**10%**											
3.1.Clear allocation of tasks	**25,0%**	**25,0%**	13,4%	**40%**	**0%**	40%	20%	20%	35%	0%	20%	40%
3.2. Fair distribution of work and yield	**45,7%**	**45,7%**	17,6%	**70%**	**20%**	40%	70%	40%	30%	50%	70%	20%
3.3. clear rules and procedures	**29,3%**	**29,3%**	14,7%	**50%**	**10%**	20%	10%	40%	35%	50%	10%	40%
	100,0%	100,0%										

The overall weighting of the criteria "Project management" is relatively low. As easily can be seen, do the participants in the workshop have different opinions regarding sub-criteria of "Project management". The differences are especially great concerning "Fair distribution of work and yield" which resulted in a longer discussion without reaching consensus.

FIGURE 3
Project management rating, deviations are marked

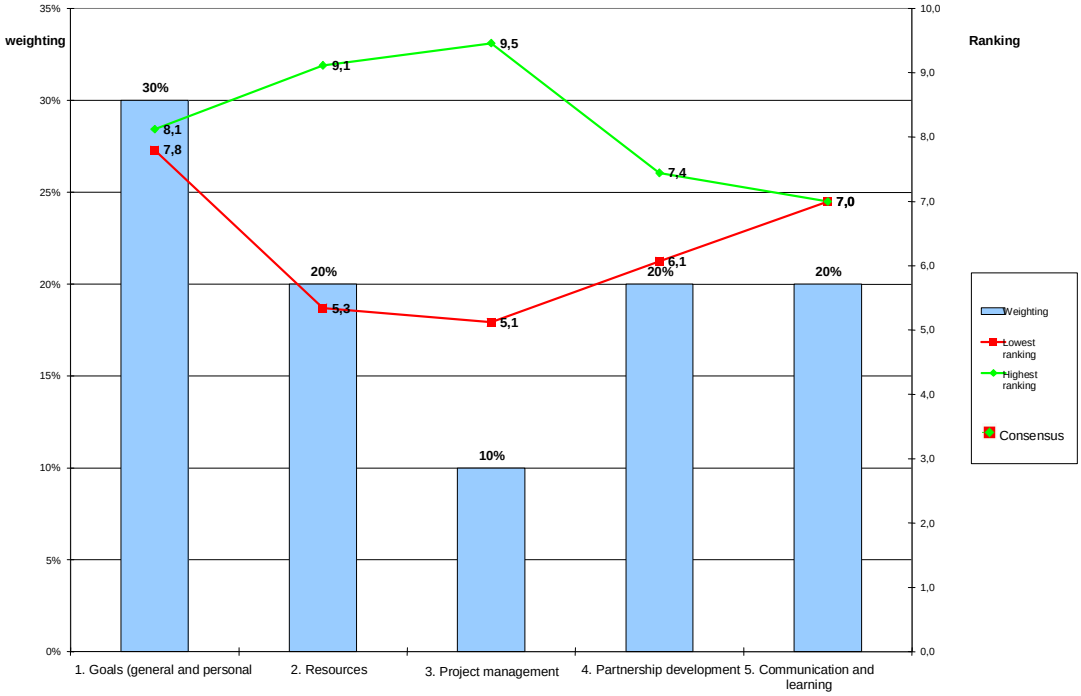
	Weighting	Discussion consensus or highest value	Discussion consensus or lowest value)	Mean	Highest	Lowest	*Namn 1*	*Namn 2*	*Namn 3*	*Namn 4*	*Namn 5*	*Namn 6*	*Namn 7*
3. Project management	**10%**												
3.1.Clear allocation of tasks	**25%**	**9**	**9**	**8,4**	**10**	**7**	8	8	8	9	9	10	7
3.2. Fair distribution of work and yield	**46%**	**10**	**5**	**7,7**	**10**	**5**	8	5	10	9	9	7	6
3.3. Clear rules and procedures	**29%**	**9**	**2**	**5,4**	**9**	**2**	5	2	6	9	6	6	4
	Resultat:	**9,5**	**5,1**										

Even in the rating phase, different opinions are made regarding the sub-criteria and in the following discussion, arguments and opinions were exhibited and explained but consensus was not reached. The reason for disagreement was different experiences about how to organise and manage projects which resulted in further discussions about project management.

Analysis
After the evaluation workshop, the team assesses the results of the discussions with the aim of identifying the strengths and weaknesses of the network in a critical and positive sense. A short report on the workshop comprising visualisation of project status, documentation of the workshop discussions, results of strengths and weakness analysis and recommendations are produced. Diagram's are here used for visualisation (not for exhibitions of statistical results) and can be used in additional discussions. If the workshop is repeated the diagram's can also be used for comparisons and the participants can for example go back to earlier phases and discuss the arguments.

The following figure is used for visualisation purposes and used for reflections about the different moments of the process. Depending on when the workshop is arranged, the figure can be quite different and the discussion can therefore focus on different elements.

FIGURE 4
Visualisation of the discussions in a workshop.



The figure shows that the most important item at this time is "Goals, general and personal". Goals are at this time relatively important and are assessed unanimous. It has got the highest weighing and there are some differences regarding the rating and the group is nearly reaching consensus. The question of resources is not very important to focus on. Probably has this with the start-up phase of the network activities to do. There are also big differences in the ranking and the following discussion was dominated by different opinions how to manage different activities, but also how the innovation network as a whole should be managed. The criteria "Partnership development" and "Communication and learning" are at this time not in focus. The diagram is here a tool for help in discussion and can in following sessions be used for further development and improvement of the networks own activities.

In the end of the report the evaluation team writes and analysis of strengthens and weaknesses that the team observe. The report is written for the participants and should not be given to someone else, e.g. to a program manager without considering consequences. It can be used of the networks to make further analysis and continue to work with the processes and development of the networks.

Feedback meeting
The third part of the SEVIN method is the feedback meeting. This is an opportunity for the evaluation team to give feedback to the participants. The team presents there picture of the discussions from the workshop and the analysis they have made and there is also an opportunity for the participants to change and add things to the report and analysis.

After this step, the external evaluation team has finished there part of the process, and the participants are expected to continue the discussion and continue with issues they find important to work with.

CONCLUSION – SOME THOUGHTS ABOUT THE SEVIN METHOD

After this description of how the SEVIN-method is used, some questions may arise about specific aspects of the methods. Taking a start in the description above and the application of the SEVIN method we will here discuss some of these central aspects that we find relevant to reflect on. SEVIN was, as has been written above, developed in an EU-project and in this project the method was tested ten times in different kinds of networks and in networks with different purposes. Five of these cases are discussed in detail in the final report (Deitmer, Davoine et al. 2003). After this we have in Sweden used the method for a total of eight times, in different kinds of networks. In one of the networks the method has been used twice. These eight times of using the method should be looked upon as a way of testing the method and use it in different ways and not as a systematic investigation.

TABLE 1
An overview of evaluation processes where SEVIN has been used. (Because of secrecy reasons, we areusing names or places; information is available).

Type of network	Number of participants	Note that:
Education network	8	Discussed which criteria's to use.
Development network 1	10	
Development network 2	8	
Development network 3	7	
Development network 4	10	
Innovation network 1	7	Evaluation made twice.
Innovation network 2	8	
Business network	6	Filled in the criteria's in advance.

The SEVIN-method has demonstrated its value and seems to be a proper method for the development of innovation networks and other development formations where collaborative processes are at work. Formations, which are based on voluntariness, individual and collective interests, contribution of resources and formations which need and develop trust. The SEVIN-method is focusing on these traits and can be used as a support and evaluation tool. Generally one can say that the advantage of the method lies in:

- The process is visible for all participants
- Strength and weaknesses of the collaborative process are communicable and by that are possibilities for distributing efforts and improvement of weaknesses created.
- By this consensus oriented and participation method of working, the participants will be better motivated to continue the process.
- By repetition of the workshop, the project members can become an overview over the dynamic of the process.

- Discussions and arguments are written down and collected in a minor report in that way, the network gets a base for future evaluation.
- For a program administrator who is organizing many projects within a program, an overview over the dynamics in the different projects can be created and appropriate measures be taken to enhance the program steering.

Despite the overall positive experiences, the use of the approach posed several questions and contributed to more improvement activities but also showed some limits. The basic focus of SEVIN is on self-assessment, and the objectives and contributions to the discussions can only be clarified and assessed when the participants accept the ground rules for the evaluation, e.g. transparency and collaboration. Our experiences with different innovation and development networks made it clear that this is not a problem in networks that are functioning well and where the participants have a cooperative attitude. An example is an innovation network where the participants from the beginning were positive and constructive in organizing their own development work and saw the tool as a means for improving their project. This positive attitude was also enforced through support of the program administrator in which portfolio the project was part of. The use of the tool can be problematic when there are tensions between individual participants or actors which they are representing. Such tensions can be the result of unclear objectives, lack of resources which participants put into the process, or other reasons. The SEVIN-tool could here be an important means for uncover conflicts or contradictory aims, but to do this, one has first to convince the participants. This can not be done in a workshop, but need time and effort, and perhaps some diplomatic skills before a network can embark on such activities. Here the support of a program coordinator can be important.

There can also be workshops were participants with a specific function are dominating. One example of this is when the operative project management dominated in numbers and also in the discussion. This resulted in that the discussion became closed rather than open and the arguments were more of self-defence kind. But this problem can also be solved later, through discussions in other meetings when the participants have changed the composition. Another solution is to arrange a mirror session were the arguments can be discussed with the board and project management as a whole. This makes the role of the moderator important.

The moderator or facilitator has a central role in the way that s/he organises and led the workshop. Together with the team members who take notes and take part in the analysis of the discussions, the moderator has a great opportunity to run the discussions in the workshop. The question is however, how much governing is needed? As shown above, the goal is to reach consensus in the discussions but also to show the differences in opinions. What is central here is that it is not the moderator's job to push the participants to reach consensus or differences; it is the participants themselves that are spouses to show these. The problem lies however here in the short amount of time and the need to end each discussion to continue to the next.

Another question concerning the role of the moderator is if the moderator should be neutral. SEVIN is seen as an instrument for self-evaluation and the moderator therefore does not need to know more than elementary facts about the network and its goals, organisation and so on. Experiences from using SEVIN in other context also show that the moderator should have a clear distance to actors, participants and the activity (Deitmer, Davoine et al. 2003). The moderator should not come to the point that s/he identifies her/himself with specific interests or actors and thereby value what is going on. What the moderator should do is to point out and specify arguments and opinions that the participants have. The moderator thereby becomes more of a "facilitator" for a learning process. The role of the moderator when analysing and writing the

report is on the other hand more of an "evaluator" in the way that the report includes both referent and specific values for example because the moderator select some of the discussions to focus on.

Another point worth mentioning is our assumption of the culture specificity of the SEVIN-tool and other similar tools. This can be viewed in several ways. The focus on transparency and cooperation are the fundament of the method and is therefore perhaps better suited to more dialogue-oriented cultures like the Scandinavian countries. Such countries work culture is characterized by small hierarchical distances, cooperation between the parties on the labor market and constructive collaboration on the workplace (Hofstede 2005). On the other hand, the French work culture for example is much more hierarchical, e.g. with greater distance between hierarchical levels which can limit discussions in the workshop (Deitmer, Davoine et al. 2003), (Davoine and Bonnet 2002). Culture-specificity can also be applied at the organizational culture level, where some business sectors or companies are more inclined to dialogue then others. Altogether, this put great demands on the facilitators' skills but these issues are also interesting from a research perspective and should be more investigated.

Participants in SEVIN-workshops are engaged in a joint learning process where they are contributing to the process with their knowledge and experience and sharing other participant's knowledge. In such a way not only knew knowledge about the development work with innovations are created, also knowledge on a more aggregated level or system knowledge is formed. A typical expression for this is from one of our examples. In the first workshop a problem came up how to involve other companies in the network. There were severe difficulties and the solution according to the participants was to inform the companies. This was a conventional solution – more information – which was more or less expected. The discussion in the workshop, which also continued long time after, resulted in that the answer at the next workshop, when the same problem came up, was to engage other actors which had the capacity and skills to talk to these companies. Reflection about what other actors could contribute and not only limit their thinking around themselves is an expression of network learning. Such learning is important for the efficiency of innovation networks but is contextualised; the proposed term local collective process learning is perhaps an appropriate concept (Huxham and Hibbert 2005).

The conditions for such learning are a series of workshops with reflections and discussions and were results and proposed measures and improvements can be discussed. A single evaluation workshop, especially near the end of a project time, leads participants to focus more on effectiveness to reach the goals than efficiency to the rational use of resources. In this case the learning effect is probably not very significant.

One of the weaknesses of the tool, which was discussed already in the COVOSECO-study, was the need of additional tools or methodologies after the evaluation workshop and feedback session (Deitmer, Davoine et al. 2003), (Davoine and Bonnet 2002). The idea to raise consciousness and improve learning trough discussions and reflections was not enough; more directive approaches for identifying and solving problems were needed. In the COVOSECO-case, the research team tried to avoid engaging more in individual cases, mostly because of limited time and resources, even if approaches like the ISEOR tool were discussed (Davoine and Bonnet 2002). Even when applying SEVIN in Sweden, we met the same demand. It seems not be sufficient to rely only on the power of discussions and reflections. Innovation networks seem to have the need of more direct support. Who should offer such support activities? The starting point for SEVIN is the idea of a tool offered to the disposal of the network. It is in a sense, their tool and the team are only acting as a facilitator. We have therefore been very restrictive in giving advice or prescriptions for further actions. The solution was instead in several projects or networks a support function

organised by the program manager. This was done in courses and seminars and participants from networks could take with them problems or questions concerning the management of processes. By participating in SEVIN, their consciousness and ability to formulate problems and solutions, was much higher than other participants.

The question if the team in addition should offer direct support to innovation networks raised also the issue of secrecy and privacy. The SEVIN-method is a method for self-evaluation and empowerment and not a method for gathering and presenting data for external evaluation purposes. Therefore we recommended the networks to make their own decisions if and when they would like to give program committee's or program managers admission to the data. But there are also other considerations about the use of data from workshops of different networks. Every network is embedded in its own context and even when there are similarities in the processes, the outcomes are certainly different. It would therefore not be appropriate to compare different network processes. But the project managers have a legitimate motive to collect such data and to analyze their portfolio of networks and the variety of development processes. One solution of this problem was to organize specific workshops with project managers, and participants from networks, were specific data where presented and discussed. Here it was up to the members from the networks to decide which information was conformable.

Our experience when establishing collaboration formations is that there are some weaknesses or problems at least in three areas and on three levels, which also are reported in other contexts (Davoine and Bonnet 2002). The *goals* and *aims* when participating in a network can on the individual level be described differently and one can identify both individual and organisational goals. On the collective level the goals are often diffuse and difficult to operationalise, even if suggestions and attempts how to handle this have been proposed (Huxham and Vangen 2005). And as the authors write "Therein lies the dilemma [framework for managing aims in practice] – clarity of purpose provides much needed direction, yet open discussion can unearth irreconcilable differences!" (p. 62) *Communication* in all network attempts can be problematic, for example can some information be seen by some actors as confidential. The striving for transparency when it comes to decision making is often missing on the collective level. But even development of the *organization for collaboration,* e.g. often networks can show weakness. When it comes to the individual participant, the support from there home organisation can be lacking. On the collective level decision making is at the risk to be concentrated to a few people. There can also be problems in using project results and transfer them to their home organisations. And, even if learning processes always are part of collaboration in networks, knowledge transfer between participants are at the risk to be insufficient.

SUMMARY

Innovation networks, clusters and other collaboration formations are rapidly becoming important instruments of economic policy. But there are neither individuals nor institutions who can give order or advice people how to organize and manage such formations. Instead politicians and public authorities are using *Leitbilder* or *guiding visions*. Such concepts are intentionally ambiguous and assume that actors who are embarking on such visions are organizing and managing themselves such formations. The here described support and evaluation tool for innovation networks (SEVIN) is a method which can be used here. The discussions and reflections organized and structured by the tool and the moderator, help participating actors to articulate and interpret their ideas, goals, and aims. Through the discussions and reflections their understanding of the processes and how to manage them is raised and action can be taken to improve the efficiency of the develop process. Because of the lack of existing rules and

regulations for organizing those processes, the method gives the individual actors, which represent different knowledge cultures an opportunity to meet different logics and meanings and open a possibility for creating a provisional platform for further joint action. The SEVIN method encourages learning not only on the individual level but also on the collective level and last not least should also contribute to vertical learning in the sense that program managers – and in the Nordic countries – public authorities also could learn from the field in order to improve the efficiency of public steering mechanism

REFERENCES

Asheim, B. (2001). "Learning regions as development coalitions." *Concepts and Transformations* 6(1): p. 73-101.
Davoine, E. and M. Bonnet (2002). *Building effective innovation networks.* Academy of Management Conference, Denver, Col.
Deitmer, L. (2004). *Management regionaler Innovationsnetzwerke*. ITB. Bremen: Universität Bremen.
Deitmer, L., E. Davoine, et al. (2003). *FINAL REPORT for the COVOSECO thematic network project within the STRATA programme.* Bremen: ITB.
Deitmer, L., E. Endres, et al. (1997). *Management und Steuerung von regionalen Verbundprojekten: Verfahren und Instrumente.* Bremen: ITB.
Dierkes, M., U. Hoffmann, et al. (1992). *Leitbild und Technik. Zur Enstehung und Steuerung technischer Innovationen.* Berlin: Sigma.
Etzkowitz, H. and L. Leydesdorff (2000). "The dynamics of innovation: from National Systems and " Mode 2" to a Triple Helix of university -industry-government relations." *Research Policy* 29(2), p.109-123.
Fetterman, D., S. Kaftarian, et al., Eds. (1996). *Empowerment Evaluation. Knowledge and Tools for Self-Assesment & Accountability*. London: SAGE.
Gustavsen, B. and J. Shotter (1999). *The role of "dialogue conferences" in the development of "learning regions":doing "from within" our lives together what we cannot do apart.* Stockholm, Centre for Advanced Studies in Leadership. Stockholms School of Economics.
Hofstede, G. (2005). *Culture and organizations: Software of the mind*. New York, McGraw-Hill.
Huxham, C. and P. Hibbert (2005). *A little about the Mystery: Understanding tailored collaborative process learning.* Glasgow: Graduate School of Business, University of Strathclyde.
Huxham, C. and S. Vangen (2005). *Managing to Collaborate. The theory and practice of collaborative advantage.* Abingdon: Routledge.
Maillat, D. (1998). "Innovative Milieux and New Generations of Regional Policy." *Entrepreneurship and Regional Development* 10, p. 1-16.
Mayntz, R. and F. W. Scharpf (1995). "Der Ansatz des akteurzentrierten Institutionalism" in *Gesellschaftliche Selbstregelung und politische Steuerung*. R. Mayntz and F. W. Scharpf. Frankfurt/Main: Campus.
VINNOVA (2006). Swedish Agency for Innovation Systems. http://www.vinnova.set.