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Relationships, networks and innovation

- squaring the circle?

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Introduction

An essential part of the debate on networks is the role of relationships and ties between the participating organisations. In his description of ties, Granovetter (1973) defines the strength of ties as a combination of the amount of time, the emotional intensity, the intimacy and the reciprocal services that characterise the tie. The remarkable result of Granovetter's analysis is that weak ties between individuals and between organisations are seen as indispensable to the actors' opportunities and to their integration into communities while strong ties between the actors lead to fragmentation of intergroup and interpersonal relations. From an inter-organisational network perspective, the work of Granovetter brings about a fundamental question: Should networks be built up by organisations that have already strong ties or relationships or should it be based on organisations with weak ties?

Granovetter focuses on positive, symmetric ties and, by this, excludes analyses of more pessimistic perspectives on ties and networks. The hopes of networks coexist with the fears of networks. While the networks, in some views, are the locus of positive things, such as innovation and learning (Jason & Powell 2004; Powell, Koput, & Smith-Doerr 1996; Tidd 1995), they potentially constitute loose, temporary and unreliable constructions, characterised by lack of long-term obligations (Waluszewski 2005). Thus, networks can be seen as a Janus head: The potential benefits of networking should be related to the potential costs and set-backs of engaging in networks. This balance of network considerations affects the perception of innovation in inter-organisational networks.

Intuitively, innovation in networks can be enhanced by two set-ups, which to a large extent are contradictory:

1. Networks created by organisations that do not know each other in advance and do not have insight into each others competences and resources are often breeding ground for innovativeness, complementary resources/competences and positive synergies. By bringing a variety of resources and competences together, one would expect the organisations to think 'out of the box'. Using Granovetter's terminology, these networks are built up by weak ties. Instead of focusing on the actors, with which an organisation has cooperated in the past and is currently cooperating, it should prepare a list of key parameters that are important in order to succeed in the future, identify organisations that possess these resources/competences and contact these organisations (Preiss, Goldman, & Nagel 1996).
2. Networks composed by organisations that know each other very well from previous interactions and relationships and, by this, have deep insight into each other's resources and competences are able to utilise the innovation potential of each other. Such business relationships represent a variety of intangible resources that exist in the interface between the organisations such as skills, information, experience etc. (Gressetvold & Torvatn 2006). The cornerstone of the network is trust between the partners and a willingness to reveal innovative ideas within the network (Larson 1992).

The first set-up emphasises the plus-sum game of cooperating and networking and excludes considerations on opportunistic behaviour by the participating organisations. These considerations

are immanent in the second set-up: The experiences of working together and the trust that results from these relationships reduce the (sense of) risk in innovating together.

This paper addresses some of the issues that arise when organisations innovate together in networks and attempt to balance the different considerations, which are outlined above. Thus, the research questions of the paper are:

- Is there a trade-off between the network innovativeness and the exploration of new possibilities, on one hand, and getting a specific outcome of the network at a given time frame, on the other?
- Do previous relationships between the network partners have an impact on this potential balance between innovativeness/exploration and outcome?

The two research questions address two different layers of inter-organisational networks. The first question is aimed at a discussion of the challenges of combining the two dimensions of networking: exploration and exploitation. The second question suggests a potential explanation of the difficulties in combining the two dimensions: Networking with organisations with which the focal organisation already has established relationships.

The paper is based on the KMD case in the NEWGIBM project. For a thorough description of the KMD case, please see elsewhere in this book.

The first part of the paper is a brief theoretical introduction to the key terms 'innovation' and 'networks'. The second part describes the overall methodological approach and operationalises the analytical framework. The third part is aimed at a discussion of the results of the case, which leads to the conclusion of the paper.

Innovation in Inter-Organisational Networks

The amount of literature on both innovation and inter-organisational networks is extensive. The connection between these two topics, innovation in inter-organisational settings, has also been analysed. The different perspectives from literature will be presented below and the paper will be related to the literature.

Interactions, Relationships and Networks

The term 'network' is often very loosely used to describe any relation between individuals, groups, organisations etc. Thus, the broad understanding of networks covers everything from an executive's 'black box' of useful contacts to an integrated company organised on internal market lines (Child, Faulkner, & Tallman 2005). There are, however, three central components of a network: actors, activities and resources (Haakansson 1990; Haakansson & Snehota 1989). These three aspects influence and control each other in a complex interplay. The actors control resources, the actors perform activities, and the activities link the resources together.

The literature on inter-organisational networks differs in the view of the ties between the participating organisations. Ford et al. (1998) analyse the relations between organisations as consisting of different bricks. On the lowest level, one finds interactions between the organisations. Such interactions are the exchange of products, services, money or social 'chit-chat'. In other words, interaction includes both interpersonal communication and interaction through the delivery of physical products and services, information and payments (Ford & Haakansson 2005). These interactions are regarded as episodes in the total relationship between the organisations, which is

the next level of relation between organisations. Thus, the relationship between two organisations consists of the previous episodes and the effect of these episodes on the future ones. The relationships of one organisation are tied up in a complex, interdependent network with a larger number of organisations – the broadest level of relation between organisations (Ritter & Gemünden 2003a). Each of these organisations have their ‘own‘ network, which make the network structure even more complex.

Other researchers have contrasting views to this build-up approach to networks (Braha & Bar-Yam 2005; Powell, Koput, & Smith-Doerr 1996; Preiss, Goldman, & Nagel 1996; Sydow & Windeler 1998). They focus on more fluid, transitory and informal aspects of inter-organisational activities as the fundamentals of a network. Thus, they do not presuppose the existence of relationships between organisations and/or actors in their definition of network. Some researchers even speak of the spontaneous formation of a network, which is marked by a loose and changeable coupling of the participating organisations (Konsinsky & Amrit 2005).

Ford (1990) describe the development of buyer-seller relationships in terms of uncertainty, distance (socially, geographically-culturally, technologically and time) and commitment. The early stages are defined as the period where potential suppliers are in contact with the purchasers to negotiate or develop specifications for a given good. These stages are marked by high uncertainty, high distance and low commitment. In the long-term and final stages, both the uncertainty and distance are reduced while the commitment to the relationship is increased. Though Ford’s description is based on the buyer-seller relationship, the terminology can be applied to other sorts of networks, which will be demonstrated in the empirical part of the paper.

Innovation

One of the things for an organisation to consider when initiating an innovation process is the ambitions of the process. The organisation might want to set up a process that searches for new possibilities, risk taking, experimentation, flexibility in the process, discovery of new, potential business plans and innovation. Alternatively, the organisation might wish to set-up a process, that is aimed at getting the most out of the existing resources in the organisation and refining the current procedures. March (1991) has termed this distinction exploration versus exploitation. Exploration projects are generally marked by much higher uncertainty (in terms of financial returns, time-frame for obtaining a result etc.) than exploitation projects. This makes the exploration projects more vulnerable than the exploitation projects.

Literature on innovation has made similar observations as to the distinction exploration and exploitation. Dewar and Dutton (1986) describe the difference between radical and incremental innovation. Radical innovations are fundamental changes that represent revolutionary changes in technology and a clear departure from existing practices. In other words, radical innovations embody a new technology that results in new market infrastructure. They often do not address a recognised demand but, instead, create a demand previously unrecognised by the customer (Garcia & Calantone 2002). In contrast, incremental innovations are minor improvements or simple adjustments in current technology. These innovations provide new features, benefits, or improvements to the existing technology in the existing market. The distinction between radical and incremental innovations is by nature somewhat arbitrary (It is difficult to give a conclusive

definition of new/existing technology/markets) and literature reviews have identified discrepancies in making clear-cut definitions of the character of the innovation. However, if the radical/incremental variable is seen on a continuum scale instead of as on a dichotomous scale, the variable can be useful in understanding different kinds of innovation.

A third distinction in the literature applies to the goal of the innovation process. Trist (1983) distinguishes between the goal as a 'problématique' and the goal as a discrete problem. While the *problématique* is concerned with a rather overall problem (environmental, societal etc.), the discrete problem is aimed at a clearly defined problem, that needs a solution (and often within a short time frame).

Networks and Innovation

A network with many participants generally contains substantial innovation resources (by virtue of the resources of each individual participant). Inter-organisational networks are generally acknowledged as the locus for innovation and learning. Thus, when the knowledge base of an industry is both complex and expanding and the sources of expertise are widely dispersed, the innovation and learning can be derived from inter-organisational networks rather than within individual organisations (Powell, Koput, & Smith-Doerr 1996).

The coordination and cooperation of numerous actors, however, is a complex game, in which issues like power, distribution of benefits and costs, intellectual property rights, politics etc. are innate e.g. (Cook & Emerson 1978; Swan & Scarbrough 2005). These issues can hinder the ex-

exploitation of the resources within the network and the (willingness to carry out) exploration of new possibilities. A lesser network that does not have the same innovation resources can, on the other hand, be more manageable for a focal organisation, thus making it more easy to get a relatively rapid outcome from. Gulati & Gargiulo (1999) describe the importance of relational embeddedness. This term stresses that prior experience between two or more organisations has a major importance for future cooperation: The probability of a new alliance between two organisations increases with the number of prior direct or indirect alliances between those organisations.

This chapter regards the interface between innovation and networks. In order to understand the development of the analysed network, both innovation and network literature will be included, but the prime concern is the interface between the two traditions.

Methodology

This chapter is based on a single case network, that was chosen on the basis of the potential theoretical contribution of the findings in the case (Eisenhardt 1989). Thus, the KMD network was selected due to two interesting aspects of the network. Firstly, the network consists of both partners who are completely new to each other and partners between whom relationships were already established at the outset of the network. To some extent, two networks have coexisted within the same project (see the description of the core and peripheral group in the description of the KMD network elsewhere in the book). This opens up the possibility of making comparisons of the dynamics of the two networks. Secondly, throughout the entire process, the focal organisation has been very committed to developing their platform in the network and letting the researchers be an integrated part of this process. Thus, the likelihood of finding interesting perspectives in relation to the two research questions seemed considerable.

Four network meetings have been selected to describe the case. There have been other meetings within the network: The research group met with the focal organisation numerous times and the focal organisation has had bilateral meetings with the core group members (as a part of their general business relationship – see description below). All of these meetings could potentially have had an impact on the development of the network. Four particular meetings have been selected because they represent crucial episodes in the network development. Furthermore, the four meetings illustrate the research questions addressed in this paper: The character of the innovation within the network and the (potential) impact of previous relationships in the innovation process.

Data

The author of this chapter and four other researchers involved in the project have been actively involved in the Intelligent Utility Network as participants at network meetings and as sparring partners in the network formation and development. At the network meetings, several researchers participated and the observations were triangulated after the meetings.

In addition to accumulating observations, the author, together with a research colleague, carried out numerous interviews with the different organisations involved in the network. These in-depth interviews were recorded and transcribed and the interpretation of the interviews were triangulated in the researcher group as well.

Operationalisation

As mentioned above, the four meetings can be regarded as critical events in the network development and as an indication of how the network has been working. With the view to systemise the presentation of the network development and to focus on the theoretical aspects in question, four parameters are introduced:

Output: the number of ideas which have been generated at the meetings. This is merely a quantitative measure and does not look at the character or quality of the generated ideas.

Exploration rate: the degree to which the generated ideas are explorative. In recognition of the arbitrary character of this variable, the original vision paper of the director of the focal organisa-

tion is used as a benchmark: If the ideas generated at the meeting are beyond the visions of the paper, the exploration rate is high. If the idea generation is more limited than the initial paper, the score is low.

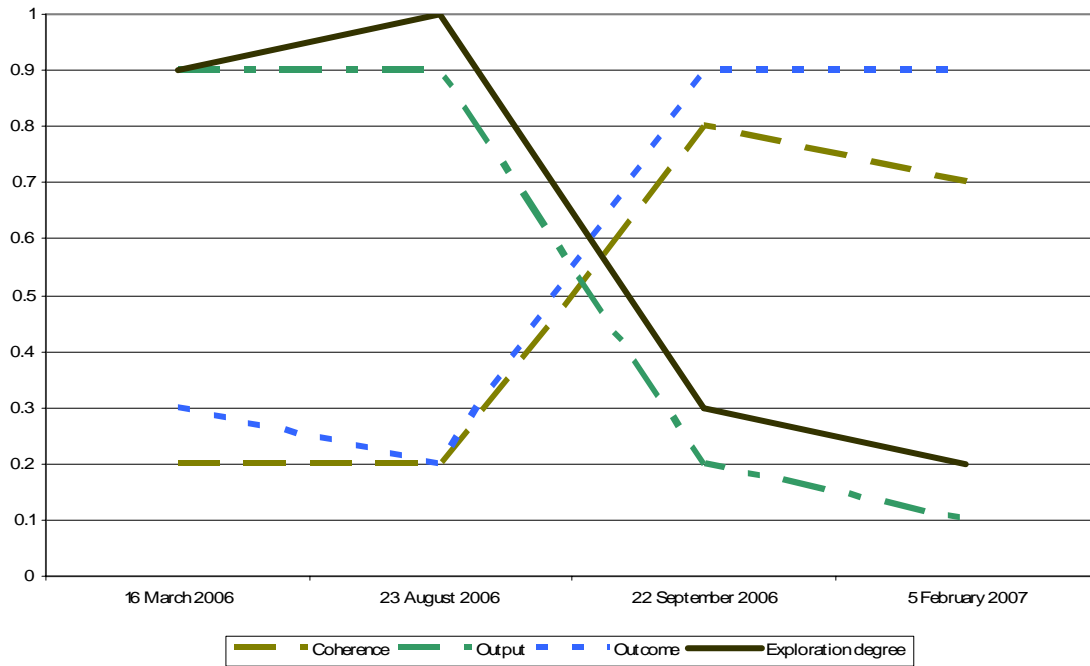
Outcome: the level of commitment from the participants in terms of progressing with the generated ideas. This variable indicates the ability of the participating organisations to provide the network with resources to pilot the developed solution (end-users, technology, manpower, direct funding etc.). In addition, it encompasses the commitment of the partners in terms of applying for external (EU or national) funding. The term outcome is by in large equivalent to Ford's (1990) term 'commitment'. However, the variable is not merely aimed at the level of commitment to the other partners but also to the innovations (services, goods, concepts, etc.) of the network.

Coherence: the level of coherence between the participating organisations in terms of previous relationships. If the network meeting is based on participants, who all know each other from previous relationships, the coherence is estimated as high. If the network meeting participants are all new to each other in terms of previous episodes or relationships, the coherence is estimated as low. The number of participants has an impact on the coherence as well. The coherence of a network consisting of a relatively limited number of participants tends to be higher than networks with a larger number of participants. The term coherence has similarities to Ford's (1990) term distance. The coherence variable, however, is beyond the dyadic relationships and is aimed at the entire network and its density – not merely the social, geographical/cultural, technology and time distance between two partners.

All the four variables are indexed in a continuum between 0 (low) and 1 (high). The scoring is subjective because of the nature of the four variables. If 1 is the maximum score on output, the equivalent number of ideas for scoring 1 on that scale is difficult to determine. It could be 10, 20 or even 200 ideas at a meeting. The scoring has been carried out, however, partly on the basis of the interviewees' assessment of the output, outcome, exploration and coherence of the particular meetings and partly on the basis of the researchers' experiences from similar inter-organisational networks. For instance: Which exploration of new concepts, services and products have we seen in other networks, and what is the degree of exploration at this meeting?

Figure 1 illustrates the network development in terms of the four variables throughout the network development from the initial meeting in March 2006, to the last meeting in February 2007. The next chapter will discuss the implications of the network development.

Figure 1: Overview of Network Development from March 2006 – February 2007



Analysis

The analysis of the Intelligent Utility Network is divided into a discussion of the overall development of the network, a description of the content of the network innovation, a discussion of the impact of previous relationships in the network, and concluding remarks on the success of the network.

Discussion of the Overall Development of the Network

Figure 1 illustrates the development of the network based on experiences from the network meetings and interviews with the participating organisations.

The March 2006 meeting was characterised by a large number of participants, who to a large extent were brought together without knowing each other beforehand. While the coherence of the participants was limited, the output in terms of ideas for the Intelligent Utility Network was very high. The content of the ideas was explorative compared to the original vision paper of the focal organisation, bringing new and innovative dimensions to the platform (services within social care for elderly people).

Principally, the August 2006 meeting can be described as similar to the March 2006 meeting. Some of the generated ideas, however, were even more explorative than the ideas at the previous meetings (visions on the functionalities within the social service area and purchasing organic energy were prepared and included in the envisaged future platform). On the other hand, the outcome was limited. None of the participating organisations expressed their interest in actually committing themselves to taking part in the funding of developing the platform.

As described above, the set-up of the September 2006 meeting differed from the previous two meetings. Three utility providers, with which the focal organisation already had established relationships, were invited. The degree of outcome and exploration degree had declined compared to the first two meetings: The utility providers were, to a large extent, 'thinking in the box' of the current need of the customers. Due to the fact that the focal organisation had existing relationships with the utility providers (and that the utility providers knew each other from professional networks in the utility industry), the coherence of the narrow network was high. The outcome of the meeting was high as well: The focal organisation and the utility providers decided on a time schedule for setting up the platform and agreed on a market introduction deadline.

The February 2007 meeting was arranged as a workshop, which would clarify the exact functionalities and modules of the Intelligent Utility platform. The participants were the same as in September 2006. However, two additional utility providers were invited to the meeting. The focal organisation had already established a relationship with one of these 'new' utility providers but the other utility providers did not know the representatives of the organisation. The other 'new' utility provider had no previous relationship with the focal organisation. Thus, the coherence of the participating organisations was lower as compared to the previous meeting. The outcome of the meeting was not different from the September 2006 meeting: The same three utility providers were still holding on to the former time schedule and market introduction deadline. The two 'new' participating organisations were not invited to participate in implementing the platform. The degree of output and exploration was decreasing as in relation to the September

2006: The smart home functionalities were ruled out by both the focal organisation and some of the core partners as being too premature for the platform.

Innovation in the Intelligent Utility Network

As described in the previous section on the case, the focal organisation, at an early stage, recognised that they had to involve other organisations in order to realise the visions of the Intelligent Utility project. However, the different actors in the focal organisations did not seem to agree fully about the intentions behind and implications of setting up the network. The area director, who was preparing the vision paper behind Intelligent Utility, perceived the network as a way to collect new ideas and visions for the final service platform. Thus, the explicit commission of the network was to generate new and visionary ideas. The perception of the project leader in the focal organisation differed from this 'idea factory' understanding of the network. He primarily referred to the network as a way to implement the visions of Intelligent Utility, which is condensed in the following statement:

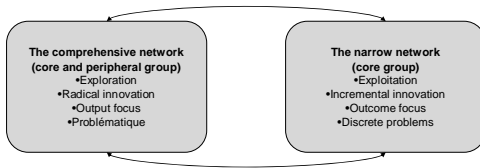
“We knew that all the technical aspects of our vision [as stated in the vision paper] already existed. We just needed to find partners that would provide us with the technology and the end-users for the product..... The project was merely an implementation and not a development project”.

The discrepancy of perception of the function of the network influenced the work-flow and development between and during the network meetings. While the director constantly tried to open up the network to encompass organisations that could add new angles and visions to the service platform, the project leader was keen on ensuring outcome and moving to prototyping. As a con-

sequence of the internal discrepancy in the focal organisation, the Intelligent Utility project turned out to be based on, not one, but two separate and dissimilar networks.

Figure 2 illustrates the two networks and the dissimilarities.

Figure 2: Overview of Characteristics for the Comprehensive and the Narrow Network



The meetings of the comprehensive network, which consists of the core and peripheral groups in the network, were marked by a focus on idea generation, exploration of new possibilities and radical innovations. There were two meetings in the comprehensive network: one in March 2006 and the other in August 2006. The August 2006 meeting generated a long list of potential (and currently technically feasible) solutions on the Intelligent Utility platform: Self-sufficiency in energy consumption (the private home as a micro energy plant); purchasing of organic energy; and social services for certain customer segments (care for elderly citizens and disabled people). In general, the meetings in the comprehensive network were marked by a focus on societal ‘problématiques’ and general sustainability, such as lowering the release of carbon dioxide, handling future challenges of elderly people and maximising the sense of security in society.

The meetings in the core network were by all means different from the ones in the comprehensive network. These meetings, in September 2006 and in February 2007, were marked by strict agendas, focus on concrete outcomes from the meetings ('What do we do now to accomplish what we've decided?') and handling of discrete problems ('Which customer need do we want to accommodate and is the customer willing to pay for it?').

One could expect some degree of spillover from the comprehensive network to the core network: Some of the ideas generated in the explorative processes in the comprehensive network could potentially inspire the processes of the core group. Thus, representatives of the core group organisations participated in both of the comprehensive network meetings. Apparently, the effect has been the opposite. The ideas and visions about the integration of smart home solutions into the platform were neglected and, to some extent, labelled as 'a pie in the sky'. At the September 2006 and the February 2007 meetings, the project leader of the focal organisation agreed with the other participants to disregard the smart home solutions because of the 'current irrelevance'.

Previous Relationships in the Network

The Intelligent Utility Network has been marked by openness throughout all of the phases. At an early stage, the focal organisation decided that all interested persons and organisations could attend the network meetings if they could state the case for their interest and potential contribution to the network.

The peripheral organisations in the network were involved in various ways. The focal organisation had previous relationships with two of the peripheral organisations and contacted them in order to involve them in the Intelligent Utility Network. Two peripheral organisations were a part of the network of the moderator/organiser of the August 2006 meeting and were involved in the network through this connection. The last three organisations were involved through the initial contact via mails and letters from the focal organisation and the researchers in January 2006.

The narrow network (the core group) was marked by strong relationships and coherence between the focal organisations and the other organisations involved. Though the focal organisation had previous relationships with a few of the peripheral organisations, the comprehensive network was a much looser network composition in terms of relationships.

The meetings in the core group illustrated how previous and ongoing relationships, to a certain extent, can be an impediment to explorative, innovative processes. The utility providers were constantly relating the new platform to the existing services of the focal organisation. The following debate of the September 2006 meeting demonstrates this point. The project leader of the focal organisation made a thorough presentation of the overall perspectives of the envisaged platform. The presentation was aimed at the problématique, that the solution was trying to address (the societal benefit from lowering the energy consumption of the private end-users). As mentioned above, the utility providers in the core group were already using the data processing system of the focal organisation to invoice the private customers and were focusing on the potential overlap between the new solution and the existing service, for which they were already paying the focal organisation:

‘Does this mean that we are going to pay twice? [...] We are already receiving this service from you’..

In addition, the meetings in the core group tended to be rather operational. The utility providers constantly asked about the data structure and system architecture. The specialists of the focal organisation with thorough insight into the technical side of the platform tended to be predominant compared to the project leader, who was a generalist. This meant that the overall, strategic perspectives, to some extent, were excluded from the agenda, while the discrete, operational problems of the existing services and the future platform took over.

In spite of the fact that the participants in the core group were keen on focusing on the details and the discrete problems of the solution, the group worked very efficiently and outcome oriented. It was not an issue of *whether* to cooperate but rather *how* to cooperate.

Has the Network Been a Success?

The pending issue is whether or not the Intelligent Utility Network has been a success. Since the primary aim of the network (at least in the area director’s opinion) was to utilise the network to innovate, one angle could be to assess the innovation success of the network. However, the discussion of network success is just as complex as the discussion of the different aspects of innovation (radical/incremental, exploration/exploitation etc.). Some analyses have operationalised innovation success as rating the performance of the firm compared to the competitors and the ‘state

of the art' (Ritter & Gemünden 2003b; Ritter, Wilkinson, & Johnston 2002). In these analyses, the rating is based on the self-assessments of the firms.

The Intelligent Utility Network is a success in terms of getting an outcome from the network.

The focal organisation and the restricted network are in the process of developing a prototype of the platform and they are trying to collect external funding for the project. All the participating organisations are trying to make the most of their individual assets through new ways of combining these assets: The focal organisation has a large amount of data on potential customers and methods of processing this data. The utility providers have direct contact to a large number of customers. In other words, by combining their individual assets, the network partners are seeking (and apparently succeeding) to exploit their existing competences and resources. The impression given from the meetings and the interviews with the partners is that the organisations assess themselves and the Intelligent Utility Network as being very innovative as compared to the 'state of the art' and other competitors.

The innovation success of the network, however, can be questioned if one includes parameters beyond exploitation of the resources and self-assessment of the participating organisations. As becomes clear in the prior discussion of the network development, only a limited number of companies out of the comprehensive network are actually involved in prototyping the platform. Compared to the original vision paper of the area director of the focal organisation and the idea generation of the comprehensive network, the explorative innovation in the final prototype is limited. The prototype cannot be regarded as a radical innovation since the solution does not include new technology that results in new market infrastructure. As mentioned above, the incre-

mental/radical dimension should not be seen as a dichotomous variable but rather a continuum.

However, concerning the novelty of the prototype for the market and in terms of technology, the platform seems to be closer to the incremental than the radical end of the continuum.

An assessment of the network success should, thus, clarify on which parameters the assessment is based. If an optimal exploitation of the existing competences and resources in the core network is the parameter, the network is a success. Alternatively, the assessment the network success can be based on the counterfactual question: 'What could have been achieved if the focal organisation managed to include the comprehensive network and utilise all or some of the ideas generated in the March 2006 and August 2006 meetings?' From this perspective, which emphasises the aspects of exploration and radical innovations, the network success is more dubious.

Conclusion

The chapter attempts to make two contributions. The first is an illustration of the challenges from a network perspective to balance the exploration of new possibilities, on one side, and actually getting a concrete outcome of the network within a given time frame. The second is to enhance the understanding of the effects of basing the inter-organisational network on partners that already have established relationships.

In relation to the first contribution, the Intelligent Utility case illuminates considerable challenges in combining innovation and exploration with being able to move forward and getting a concrete outcome from the networking. The high ambitions of the focal organisation, in terms of exploring new possibilities, together with the network partners contrast with the actual result of the network. Though the ‘scaling down’ of the explorative side of the platform could be seen as a deliberate decision of the project leader, the case seems to indicate that network partners find it challenging to explore new possibilities. To some extent, the project leader makes a virtue of necessity when lowering the explorative ambitions. The comprehensive network cannot combine exploration with actually getting an outcome of the network. The exploration of the core group is impeded by the perception that the provided services should be feasible, tangible and demanded by the customers.

The Intelligent Utility case demonstrates a parallel network structure in the comprehensive network and the core group. Though the organisations of the core group participate in the comprehensive network as well, there is no spillover from the exploration and idea generation of the

comprehensive network to the core group. Actually, the ideas of the comprehensive network are labelled as a 'pie in the sky' and are not considered as relevant to the platform.

The second contribution is an indication of how previous and ongoing relationships between partners influence the inter-organisational network. The case suggests that the efficiency of a network consisting of organisations that know each other from established relationships is considerably higher than networks which are based on 'new' organisations. The core group of the Intelligent Utility Network is marked by a high degree of outcome in terms of commitment from the organisations to finance the platform development and trying to get external funding. The previous and ongoing relationships in the core group, however, tend to hamper idea generation and the exploration of new possibilities within the provided service.

It is clear that the two contributions of the paper are by no means isolated from each other. The Intelligent Utility Network illustrates that in order to ensure the progress of the network in terms of getting a specific outcome, the focal organisation has a tendency of choosing the 'easy', incremental innovation. Thus, through the already established relationships in the core group, the focal organisation develops tangible and specific services, and the focal organisation neglects the possibility of making explorative, radical innovation in the comprehensive network.

It should be stressed that this paper is not an attempt to grade 'innovation quality'. Incremental innovation and exploitation is not ranked as inferior to radical innovation and exploration. The platform developed by the core group is most likely to be innovative and add new value to the customers. However, compared to the initial visions of the Intelligent Utility platform, the solu-

tion developed will not be fulfilling the expectations. In other words, inter-organisational networks *can be* the locus of innovation. *But* the nature of the innovation of the network depends on a long list of aspects, such as characteristics of the participating organisations, the project leadership and the time frame for the final outcome of the network process.

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