Competitive paper submitted to the 24th IMP Conference,
September, 4-6, 2008, Uppsala, Sweden
Special track on Non-business actors, Chair: Catherine Welch

Actor mobilization and institutional change around a common issue:
the case of fighting heart disease in Finland

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Abstract

The aim of this paper is to investigate mobilization of actors around a common issue and the ensuing institutional and network changes. The issue and problem (in our case, a disease) is chosen so that it can only be resolved by collective action of different types of actors at different levels. We examine how actors may be mobilized, how institutional rules for behaviour change and how this influences different networks. Empirically, we focus on collective action needed to tackle heart disease, which is a largely overlooked global health problem. Our empirical case depicts how institutional change resulted in an emergence of a new issue-based network and furthermore, in new interaction rules and relationships reflected in industrial networks, such as between food companies and medical research institutes.

Key words: institutional change, issue-based networks, actor mobilization
INTRODUCTION

The society is facing increasingly complex social problems that can only be resolved by collective action. Such global and multifaceted problems as, for instance, the climate change and the use of child labour, have ambiguous boundaries and their solving necessitates the participation of numerous types of actors at multiple levels from the grass-root level to firms and policy makers. Further, since their resolving requires changes in many institutionalized practices and behaviours they call for acts of institutional entrepreneurship. The concept of institutional entrepreneurship refers to “the activities of actors who have an interest in particular institutional arrangements and who leverage resources to create new institutions or transform existing ones” (Maguire et al. 2004:657; DiMaggio 1988). This provides one way to approach agency and change, which were mostly lacking in the early institutional theories that focused on isomorphism and stability.

An emerging body of literature on ‘collective institutional entrepreneurship’ (Hargrave & Van de Ven 2006; Möllering 2007; Wijen & Ansari 2007) emphasises the collective mobilization aspect of institutional change. This approach stresses the process of overcoming ‘collective inaction’ (Wijen & Ansari 2007; Olson 1965) and the necessity of gaining support from a wide array of actors to solve the urgent problems of our time. Such focus stresses the centrality of networks for the mobilization of support and other resources needed to create institutional change. While an increasing amount of studies call for more compelling combination of network theoretic concepts with that of institutional entrepreneurship (e.g. Maguire et al. 2004, Garud et al. 2002), only few empirical studies have taken such course (Greenwood & Suddaby 2006; Möllering 2007). Some work has taken an institutional approach to business network development (Salmi 1995, 2004, Welch 2001), but in particular, how firm level actors are mobilised for an institutional change project is an under-theorised topic. While the work of Brito (2001) marks an opening towards discussing how collective action emerges and influences the dynamics of industrial networks, it does not explain how institutional change (and institutional change agents) triggers novel relationships and operating logics within business actors. These gaps in the literature open an avenue to combine institutional entrepreneurship (neo-institutional) literature with the (industrial) network approach.
The aim of this paper is to investigate mobilization of actors around a common issue and the ensuing institutional and network changes. The issue and problem (in our case, a disease) is chosen so that it can only be resolved by collective action of different types of actors at different levels. We examine how actors may be mobilized and how institutional rules for behaviour change and how this influences different networks.

Empirically, we focus on collective action needed to tackle heart disease, which is a largely overlooked global health problem. While Western countries have pushed the death rates from heart disease over 70 years, working-age people in less developed countries are killed from heart disease. We examine the creation and development of a public health initiative called ‘the North Karelia Project’, which was started in Eastern Finland in 1972. The project was launched to reduce the world’s highest heart disease mortality rate among working-aged men through changing their eating habits in the county of North Karelia. The project was coordinated by the National Public Health Institute of Finland and the World Health Organization (WHO). The project resulted in a ground-breaking cooperation between national public health authorities, the food industry, policy makers and non-governmental organizations (NGOs) such as heart associations and housewives’ organizations. It also partly triggered the creation of new heart friendly products such the cholesterol-lowering functional foods margarine Benecol. The success of the North Karelia Project (by 2002 the age-adjusted coronary heart disease mortality rate had fallen over 80 percent in North Karelia from the pre-program years) is documented in over 400 international medical articles and the project is frequently cited as the model for other national and international prevention trials. Besides discussing network mobilization in North Karelia we briefly discuss the effort to translate (Czarniawska & Sevon, 2005) the model internationally.

The case study is based on individual in-depth interviews and a collection of secondary evidence such as written documents and national and international journal articles. The interviews were conducted in two phases. The majority of the interviews were conducted during a four year project (between 2003 and 2007) which focused on investigating the dynamics of the emergence of the science-based field of cholesterol-lowering functional foods (Ritvala, 2007). In the second phase, complementary interviews were conducted during the early 2008 to enrich the earlier insights and collect data on the translation of the North-Karelia project into Asia. The interviewees include key researchers involved in the North-
Karelia project, medical scientists, managers of foods and pharmaceuticals companies, authorities as well as representatives of associations and societies.

This paper contributes to two bodies of literature: the network (IMP) studies and the institutional entrepreneurship approaches. We analyse the emergence and mobilization of issue-based networks, and propose a framework that integrates the complementary views on network mobilization by the IMP approach (with focus on private actors and economic interests) and collective institutional entrepreneurship (with focus on policy actors and collective behaviour). Thus, we add to the relatively few IMP studies that have turned to institutional theory to better understand the broader context where business relationships emerge and develop. Further, by discussing the role and activities of diverse type of actors in the issue-based network we add to the few existing studies incorporating socio-political actors and issues in industrial networks (Hadjikhani & Lee, 2006; Welch & Wilkinson 2004). We contribute to the institutional entrepreneurship approach (Möllering 2007; Wijen & Ansari 2007) by investigating how institutional change and institutional entrepreneurship are enabled through network mobilization. Moreover, our discussion on the translation of the North Karelia project into Asia, addresses the central weakness of institutional entrepreneurship literature, that is, the concentration on single geographically delimited areas.

The paper is structured as follows. After this introductory section, which has specified the aim and focus of the study, the theoretical basis is presented by looking first at collective institutional entrepreneurship and then at mobilization of issue-based networks. We summarize the discussion in an analytical framework. Next, we present our research strategy (single in-depth case study) and methods. The empirical case analysis presents the developments of the North Karelian project and discusses mobilization of different actors and communities: medical community, third sector, people at grass-root level, the food industry, health policy, and finally, the potential for international translation. The discussion section summarizes the findings and shows how the issue-based network connected private, public and third sector actors around the common issue. Interestingly, the companies were relatively slow in joining in the developments, and reacted only on evident business opportunities (in the area of functional foods) and consumer demands. The concluding note shows some avenues for further research.
THEORETICAL BASIS

Solving of common issues through collective institutional entrepreneurship

Institutional entrepreneurs play central roles in changing institutions, and in creating new social practices (e.g. Maguire et al. 2004; Greenwood et al. 2002). DiMaggio (1988:14, original emphasis) introduced the concept of institutional entrepreneur by asserting: “New institutions arise when organized actors with sufficient resource (institutional entrepreneurs) see in them an opportunity to realize interests that they value highly”. This resource mobilization argument (Beckert 1999) stresses the role of bottom-up processes for challenging increased conformity or isomorphism with the institutional environment predicted by neo-institutional theory. The literature on institutional entrepreneurship stresses the role of guiding actors such as entrepreneurial individuals (Lawrence & Phillips, 2004) or powerful firms (Greenwood & Suddaby 2006; Sherer & Lee 2002) in institutional change. The concept of institutional entrepreneurship too often invokes the image of a single heroic individual or firm acting alone, and hence downplays the participation and cooperation between the wide array of actors in institutional change (Lounsbury & Crumley, 2007; Lawrence & Suddaby, 2006; Hwang & Powell 2005; Maguire et al. 2004).

Indeed, institutional change is often a highly complex social change process, which necessitates the participation and support of a diverse range of actors, as the cases of global climate policy (Wijen & Ansari, 2007) and the use of child labour (Khan et al. 2007) demonstrate. “Significant social issues necessarily sit within the inter-organizational domain and cannot be tackled by any one organization acting alone” (Huxham & Vangen 2000: 1159; Trist 1983). According to Trist (1983: 270) “The response capability required to clear up a mess is inter- and multi-organizational”. In collective problems such as the climate change the interests of actors may lie in not cooperating, resulting in collective inaction (Wijen & Ansari, 2007; Oliver 1993). Institutional change in such settings necessitates “collective institutional entrepreneurship” (Möllering, 2007), a term that Wijen and Ansari (2007:1079) define as: “the process of overcoming collective inaction and achieving sustained collaboration among numerous dispersed actors to create new institutions or transform existing ones”. This requires “institutional work” i.e. the purposive work of individuals and organizations aimed at creating, maintaining, and disrupting institutions (Lawrence & Suddaby, 2006) that goes well beyond the activities of few institutional entrepreneurs.
The problem of collective action, i.e. “any action which provides a collective good” (Oliver 1993:273), has attracted the interest of scholars most essentially since economist Mancur Olson’s (1965) influential work on collective inaction caused the “free rider problem”. Prior to him, social scientists generally assumed that there is a natural tendency for people with shared interests to cooperate. However, there is little research on the strategies how collective inaction is overcome (Wijen & Ansari, 2007; Oliver 1993). On a rare account, Wijen and Ansari (2007) turn to state level regime theory to study how the collective action problem is overcome in the resolution of international conflicts around the climate change. The authors identify six drivers of collective institutional entrepreneurship: manipulating power configuration, creating common ground, mobilizing bandwagons, devising appropriate incentive structures, applying ethical guidelines, and using implementation mechanisms. However, as their study focused on the state level, it did not discuss how company or consumer-level behavioural changes may be induced. As the 21st century is witnessing a worldwide movement toward coordination of the public, private, and third sector organizations addressing issues such as health (Huxham & Vangen 2000), approaches are needed that tackle collective action across sectors and levels ranging from grassroots to policy-makers.

Möllering (2007) proposes studying collective action in market constitution as a process of dealing with uncertainty at multiple levels of the market as a transaction system supported by actors, networks and institutions. Institutional entrepreneurship in market constitution, according to him is a collective phenomenon that transcends individual actors as entrepreneurs. Interestingly, Möllering (ibid.) stresses the centrality of networks in market creation as mediums where institutional forces and actor initiatives are reconciled (Hargrave & Van de Ven, 2006). The author turns to IMP approach in stressing that existing market networks and established relationships increase efficiency and reduce uncertainties in the creation of new markets. Actors draw on these existing market networks to mobilize other market actors to build new markets and shape existing market institutions. Also, Hargrave and Van de Ven (ibid.) stress the role of networks and collective nature of institutional change. Their approach is more grassroots in the sense that it builds on the social movement metaphor. Scholars in this field explain the dynamics of social movements through mobilizing structures, i.e. networks of actors, organizations and resources that are available to insurgents to mobilize and engage in collective action; political opportunity structures confronting the
movement; and framing processes through which meanings of social issues or events are contested (ibid).

In contrast to social scientists who primarily examine social movements as grassroots phenomena, Lindsay (2008) argues that public leaders and elite actors also play important roles in advancing social movements. In particular, elite networks are fundamental to the success of social movements as they provide critical resources, produce cultural goods, and build legitimacy towards external audiences (Lindsay, 2008). Hoffman (1999) argues that entirely new industries and fields may form around such common issues drawing together actors who have interest in the issue. According to this collective action model institutional change emerges from a dialectical process in which opposing actors in an organizational field frame issues and construct networks (Hargrave & Van de Ven 2006).

To sum up the discussion so far, institutional change around a complex social issue necessitates collective action and socially skilled actors. This necessitates the mobilization of public and private actors as well as people at the grass-roots level. But how exactly existing networks are mobilized, particularly when there is a collective inaction problem and when the interests of business actors are violated, remains open. We now turn to industrial networks literature to discuss network mobilization.

**Mobilization of issue based networks**

The IMP approach to networks has stressed change and dynamics in business networks, focusing, in particular, on the economic and technological factors that cause network dynamics (Brito, 2001). Still, the network has been seen to include different types of actors – including not only (industrial) business firms and their (direct) customers and suppliers, but also e.g. governmental agencies, financial organizations, and research institutes. Thus the conceptual and empirical focus has been broadened from inter-firm exchange relationships to networks involving a diverse range of actors such as governments and other type of political actors (Welch & Wilkinson 2004). Therefore, the industrial networks approach is analytically capable of analyzing wide inter-sectoral networks, and also, suitable for studying network mobilization around common issues.
Mobilization of other network actors has been seen to form a key factor influencing network dynamics. Indeed, early on it was noted that to bring about change, the company needs to mobilize its partners to induce change and affect is business relations. In any attempt to accomplish things (e.g. cooperation) in a network, other actors need to be mobilized, and for this, bonds between the actors are necessary (Håkansson and Snehota, 1995). However, network mobilization has mostly been studied from the perspective of firms and private interests. In a broader perspective, network mobilization refers to the dynamic process of forming groups or other associations for the pursuit of collective goals where organizations interactively shape and develop the rules that constitute and govern their relationships (Brito, 2001, Mouzas and Naudé 2007).

The attempts to study underlying processes of network mobilization from the IMP perspective are still scarce. Mouzas and Naudé (2007) have started to fill this gap with the “network mobilizer” model. The model is based on two key assumptions. First, organizations are embedded in an existing context (macro-level externalities, network level, and dyadic level) that both enables and constrains their activities. Since network mobilization is always constrained by existing resource and activity structures, it necessitates strong commitment from the actors involved which again is more probable if a problem is recognized by a large number of actors (Brito, 2001). Second, organizations continuously struggle to increase their internal efficiency and exploit new business opportunities in their surrounding network.

This model articulates the network mobilization as a sequence of five interdependent and dynamic phases: network insight, business propositions, deal, social contract, and sustained mobilization. The first challenge in any mobilization effort is linked with the lack of network insight such as supplier’s or customers’ concerns, which leads to preoccupation with companies’ own problems. The second challenge concerns the company’s initiatives for concrete issues such as products or cooperation. Third challenge is to structure deals so that they mobilize other network actors. The fourth challenge is about expectations management regarding the nature, extent and length of jointly decided action. The final challenge is achieving sustained mobilization (Mouzas and Naudé, 2007). However, while the model operates well in discussing how actors attempt to increase their efficiency within the network through their business partners, it lacks in the capability to discuss how macro-level effects, such as socio-economic changes and public actors affect firms’ operations and opportunity identification. Indeed, besides vertical and horizontal relationships also institutional
relationships (Brito, 2001) are crucial if we are to better understand the mechanisms of network mobilization. Brito (2001:156) calls these institutional relationships as “collective actors” i.e. a net of relationships created in order to cope with a collectively perceived and shared issue”, an issue-based net (Brito, 1999).

It has been argued that even in case of sweeping changes and fundamental macro-level developments, network dynamics need to be initiated at the level of individual relationships (Halinen, Salmi and Havila, 1999). Also, to cause changes at the level of networks, the impulses for change need to created at individual relationships. Indeed, individual relations may be both the source and transmitter of change. Thus network mobilization requires that an issue is recognized and acted on by several actors in the network, and their actions/reactions cause changes into their relationships, which in turn, may cause the changes to spread further in the network (Havila and Salmi, 2000). Earlier investigations into ideological changes affecting network composition, mostly concentrate on major political changes such as transition into a market economy (Salmi 1995; 2004) or EU integration (Elg & Johansson 1996). The recent problems, such as climate change and use of child labour, are not geographically limited but raise global concerns.

Collective action depends on the ability to mobilize convergent interests. Since the interests of various parties are often contradictory, this process is characterised by bargaining and negotiation. These processes of negotiation and adaptation are constantly taking place in business relationships, but difference here is that the rules need to be agreed upon by a group of actors. The local rules that emerge from the negotiation among industry members are also tied to higher level social and political rules of the society that are often legally enforceable. (Araujo & Brito, 1998)

As we see it, mobilization around a complex social issue requires inducing cooperation from industry and policy makers as well as engagement of people as characterized by social movements. Further, we note that existing institutions both constrain and enable action, as do also the existing relationships of actors. As comes to an issue that raises collective interest, the resulting collective institutional entrepreneurship is able to build new (cognitive and normative) institutions, which are reflected in activities and result in new enduring business networks (including public-private links).
Analytical framework for studying cross-sectoral mobilization in issue-based networks

Figure 1 presents a simplified conceptual framework for studying the mobilization of issue-based networks. This framework integrates the complementary views on network mobilization by collective institutional entrepreneurship (focus on policy actors) and IMP approach (focus on private actors) to tackle a complex issue. Altogether, our model aims for an interdisciplinary and multilevel empirical research. The key features of this framework are that

- Existing relationships (including resource and activity structures) both constrain and enable action.
- Existing institutions and power structures both constrain and enable action.
- A common issue is needed to break the preoccupation with existing rules, norms and activities (hence triggering both network mobilization and institutional change).
- Mobilization of actors takes place at multiple sectors (public, private, third).
- Issue is recognized and acted on by several actors in the network, and their actions/reactions cause changes into their relationships.
- Resulting collective institutional entrepreneurship and the emerging issue-based network modify existing institutions and networks and may result in new enduring business networks.

Figure 1. Mobilization of issue-based network
RESEARCH STRATEGY

Our research strategy is to use a single in-depth case study to investigate how network mobilization around a common issue unfolded over time and how collective action enabled institutional change. Such a complex undertaking necessitates a flexible research design and an opportunity to delineate network boundaries in the course of the research process (Dubois & Araujo, 2004). Hence, this research strategy enabled us to look at the research phenomenon from multiple angles represented by different actors. Further, it enabled us to respond to unanticipated events and findings, and hence, do justice to the complexity of the social setting under study (Denzin & Lincoln 2003; Flick 1998). This necessitates contextualised judgement by the researchers and the ability to design the case study while conducting it (Gephart 2004).

The case in this paper is “the fight against heart disease” in Finland, and more specifically in North Karelia in Eastern Finland. A unique form of issue-based network emerged, which was later disseminated rather globally, particularly through the work of the World Health Organization (WHO). The case study background is provided in the next section. The topic of this paper was identified as a particularly interesting, but under-theorized area in the PhD research of the first author (Ritvala, 2007), and hence, we take advantage of the key strength of the case study methodology, i.e. the possibility to capitalize on emerging issues. By investigating the activities of different types of organizations and individuals, we respond to recent scholarly calls for multi-level empirical research needed to enrich management research traditionally dominated by single-level studies (Hitt et al. 2007). This approach is also common among network researches, who need to resort on perceptions of various actors in order to understand the networks. The selected methodological approach thus corresponds to our theoretical aim to find conceptual links between neo-institutional theory and industrial network approach.

Data collection and analysis

This case uses mostly retrospective data. We do, however, use also real-time data when investigating and reporting the attempt to translate the network concept to other regions and/or countries. The primary source of data is individual in-depth interviews. Altogether 16 semi-structured interviews with 14 people were carried out between May 2005 and March 2008, including two interviews with Director and Principal Investigator of the North-Karelia
project (NKP). All interviews were conducted in Finnish and lasted approximately one hour. The interviews were digitally recorded and transcribed before actual analyses. The majority of the interviews were conducted within the PhD project mentioned before, and they took place between May 2005 and April 2007. In the second phase, the data gathered earlier was deepened and enriched with new data, focusing particularly on the international translation of the NKP (February-March 2008).

The interviews were semi-structured. In the beginning of the interviews the participants were given an opportunity to ‘tell their stories’ without limiting the questions too much. Such open ended questions encouraged respondents to say more in a descriptive manner (Flick 1998). Thereafter, more detailed questions were asked based on what the interviewee had said earlier or what had been considered the key issues when planning the interview. Discussions concentrated on the actual tasks involved in the network building, and the key types and sources of resistance encountered. Due to the iterative nature of the research and interviews, it was possible to build rapport with the key informants who demonstrated an exceptional degree of genuine interest towards the study.

The secondary source of evidence was formed by the extensive written material available on the North Karelia Project. The key principles and results of the project are documented in over 400 international journal articles. Furthermore, since the project aimed to decrease the cholesterol level of the entire population, and hence, to engage people at the grass roots level in this “national project”, it is particularly well documented in Finnish. Indeed, an important source of evidence was the historic of the North Karelia Project written by Doctor Harri Mustaniemi, who himself was actively involved in the North Karelia project. Besides his own experiences Dr Mustaniemi interviewed retrospectively about 60 people involved in the project (Mustaniemi, 2005). This gave us a much broader view on the research phenomenon. Furthermore, we utilized strategy documents of the World Health Organization (WHO) which were accessed, for instance, through our interviewees.

Data analysis and reporting

Our data analysis was done in three main stages. First, we mapped the key events, actors and outcomes of the North Karelia project. Second, once the key actors were identified we traced the activities that they undertook to mobilize novel relationships and how such activities and
connections resulted in network change, as well as institutional change. Third, we formed broader categories such as “mobilizing the food industry” and collected key evidence of the tasks and challenges encountered under each category.

The data analysis involved parallel investigation of different sources of empirical evidence. The actual tasks and challenges identified from the analysis of the interview data were cross-checked with the descriptions of the secondary sources. We pursued our data analysis through an abductive theory-building approach with constant interplay between theoretical pre-conceptualisation and empirical data (Dubois & Gadde, 2002). Such an approach allows the flexibility needed in an exploratory study where the theoretical framework, empirical framework and case analysis evolve simultaneously. In the following, our aim is to craft a ‘theorized storyline’ (Golden-Biddle & Locke, 2006) where we endeavour to convert the relevant components of our conceptual framework and collected fieldwork data into analytical insights. The case study narrative and the model build on the narrative emerged through this iterative data collection and analysis process. Space constraints preclude us from giving a detailed description of the data, so our theorized storyline is indicative rather than complete.

CASE ANALYSIS

Background of the North Karelia Project

In the early 1970s Finland had the greatest mortality rates from heart disease in the world. The mortality rates were highest in the Province of North Karelia on the Russian border, which had been the Eastern Finland site of the Seven Countries study of professor Ancel Keys. The study of Keys started at the University of Minnesota in 1958 to investigate the cross-country variation in epidemiology and causes of coronary heart disease. This classical study had shown that the blood cholesterol levels depend on the diet of population, particularly on the fat quality and content (Puska, forthcoming). At the time, many eating habits in Finland were unhealthy, for instance, butter, cream and whole milk were regarded as healthy, especially for children (Vartiainen et al. 2000). In North Karelia the situation was particularly bad as dairy farming was the major economic activity in the region, and hence, dairy fat was highly valued culturally and emotionally.
In 1971, a group of provincial representatives signed a petition to national authorities to get urgent help to reduce the mortality rate in the area. In 1972, Finnish authorities and experts, with the help of World Health Organization (WHO), formulated the principles and launched the North Karelia Project (NKP). The project was to be the first comprehensive community-based programme, meaning that its target was the whole population rather than patients or high risk individuals (Puska, forthcoming). Besides public policy actors, authorities and health services, the project targeted food industry, media and many local NGOs besides the heart associations. After a five-year period, the project was continued at a national level and the National Public Health Institute (KTL) took the national coordination responsibility over from the Finnish Heart Association that had coordinated the initial discussions. WHO strongly supported the continuation of the project due to the projects position as a pioneering community based prevention programme. Also international cooperation in the WHO’s CINDI (Countrywide Integrated Noncommunicable Disease Intervention) and Monica (Multinational Monitoring of Trends and Determinants in Cardiovascular Disease) started.

The latest statistics show that the mortality rate from coronary heart disease among working aged men in North Karelia in 2006 was 85% lower than before the NKP (Puska forthcoming). The success of the NKP is well documented and the project has become a best practice case in community-based preventive interventions. The remarkably international interest of the NKP is reflected in the “International Visitors’ Programme” in which nearly two thousand health experts have participated since 1979. While in the beginning activities were rather local, along time network mobilization has been more international in nature, as health is increasingly regarded as a global concern (Inou & Drori, 2006; Drori, 2005). WHO has disseminated the approach and experiences in other parts of the world to help control the global disease burden (Puska 2002). Figure 2 provides a chronology of the key events.

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1 The project was followed by the Stanford Community Study in 1974 and both projects aimed at bringing health-oriented behavioural changes reaching from the individual to the institutional and organizational levels (http://www.who.int/chp/about/integrated_cd/index2.html).
In the following we discuss how the mobilization of a complex network around the heart health issue took place across sectors and eventually across national boundaries.

**Challenging and mobilizing the medical community**

Already during 1930s and 1940s there was a lively scientific debate on how to interpret the increasing mortality rate from heart disease in Western countries. The scientific community seemed to divide into two contrasting camps in the question of the role of diet in the formation of heart disease. Unlike originally planned Sweden declined to participate in the Seven Country Study of Keys, as the leading medical scientists were not convinced of the ethics of influencing people’s dietary habits (Weinehall, 2003). The debate on the role of diet and cholesterol in heart disease gained further momentum along the initiation of the NKP in the early 1970s. Professor Erkki Vartiainen who led a subproject in the NKP recalls a response from a member of the medical community that heart disease is a “normal age related phenomenon, which can’t nor even should be tackled”. Hence, a central axis in the debate was the “traditional” cure versus the “modern” preventive approach followed by the NKP. Further, the concept of community-based prevention was new and lacked legitimacy among cardiologists. Therefore, finding a suitable and willing candidate for leading the project was not an easy task.
During its existence, Professor Pekka Puska, currently the director general of the National Public Health Institute of Finland (KTL), served as the Director and Principal Investigator of the NKP. At the time of the planning of the NKP Puska was an assistant at the department of public health at the University of Turku in south-western Finland. Similar to the other project staff, Puska was young and enthusiastic. Besides medicine he hold a degree in political science and was actively involved in student politics as a member of the Centre Party of Finland, which was strong in rural areas.

Central in winning the resistance of the medical community was the emerging evidence from basic and applied research and the decreasing mortality rate from heart disease found out in North Karelia. Therefore, continuous monitoring was undertaken to further improve the intervention process and provide evidence for the role of diet and other lifestyle factors in the formation of heart disease. Thus, the logic of numbers traditionally used in different forms of grassroots mobilization such as petitions and marches (Den Hond & De Bakker, 2007), was crucial mechanism, though the logic worked through the mortality statistics. Later, different types of links to universities were useful for broadening the scientific work, and also increasing scientific consensus (Wijen & Ansari, 2007).

**Third sector and the initial network building**

Nonprofit health organizations such as heart associations are often the first to response to new medical knowledge. Health NGOs launch often multinational campaigns to increase the awareness of the links between diet, cholesterol and heart disease and educate people on how they may act on this knowledge. (Puska, 1999). Such NGOs are often more active, innovative, and radical than government agencies (Puska, 1996). This was also the case in North Karelia where the local heart association acted as the initial network builder. The role of Doctor Martti J. Karvonen, chairman of the Finnish Heart Association at the time, was crucial in acting as the leader of the Finnish research group in the Seven Countries Study and starting the NKP. The local heart association and the project staff mobilized a wide community support for the project including health services, schools, media and other NGOs such the Martha Organization (the Marthas), a Finnish home economics organization that promotes the quality and standard of life in the home\(^2\). Founded in 1899 the Marthas possessed legitimacy

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and a ready and dense network providing an efficient channel for civic education on the diet-disease link. Besides mobilizing people and various types of organizations, the role of health NGOs is crucial in serving as “watchdogs” to monitor business and policy issues related to diet and heart health. In 2000 the Finnish Heart Association and Finnish Diabetes Association launched the heart symbol, which tells a consumer at a glance that a product marked with this symbol is healthier in term of fat and salt content.

Mobilizing people at the grassroots level

The project team applied the innovation-diffusion model by Everett M. Rogers, the key member of the project team (see also Rogers, 2003), to translate new risk-reducing lifestyles through normal community networks to individuals. The principal idea was that while the mass media could effectively disseminate information on the role of healthier lifestyle, opinion leaders and interpersonal relationships are crucial to influence opinions, attitudes and actual behaviour of people. Hence, the project worked closely with opinion leaders in different sectors: municipal leaders, NGO leaders, health personnel, mass media and business leaders. The lay leaders programme started in 1976 and was led by the project staff and the local heart association in cooperation with the local health centres, which appointed at least one nurse to serve as a contact person for the lay workers. Doctors and nurses were educated to give dietary advice and conduct cholesterol (and blood pressure) measurements. By 1982 over 800 people had been recruited as lay workers possessing sufficient background knowledge about heart disease and its risk factors, and capable of persuading individuals to change their dietary habits (and quit smoking). Crucial in this type of social marketing, however, was that lay workers did not have too much expertise so that they had the capacity to fully understand the way of thinking of the majority of the people. (Puska et al., 1986). The idea was to mobilize a bandwagon (Wijen & Ansari, 2007; Abrahamson & Rosenkopf, 1993), so that when a neighbour transfers to low fat diet, so does we. Besides local newspapers, national television shows were organized where the project staff followed some high risk people for weeks as health experts counselled them to get rid of unhealthy habits. These perhaps first “reality-TV shows” became extremely popular, as became also contests where different North Karelian villages were invited to participate in cholesterol-lowering competitions.
Professor Puska cites in a recent interview a response that he often received from people when trying to change their diet: “Its good that you doctors came at regular intervals to tell us what we should eat, but when you get the food industry along then…”

**Mobilization of the food industry**

Mobilization of the food industry turned out to be very challenging. Initially, particularly the dairy industry resisted the reducing of fat content in dairy products and tried actively to protect their economic interests. Professor Puska’s quotes describe the initial lack of a common goal: “When we were in contact with firms they shook their heads and said: ‘what is the question here?’ The idea about the food industry to focus on health issues is quite recent.”

The policy of the project was as formulated by Pekka Puska "boots deep in the mud" meaning that the project group really went deep in the province, going from place to place, working hard, and long days. Cooperation with the industry involved initially local food companies such as dairies, meat processors and bakeries, and involved reducing and modifying the fat and salt content. For instance, a local sausage factory called Halosen makkaratehdas launched a low fat and a low salt sausage called “Karjala-makkara” [Karelia-sausage] in 1976 (Mustaniemi, 2005). Furthermore, cooperation took place with the retailers and grocery stores.

In the mid summer of 1988 started the “great fat debate” in the leading Finnish newspapers, as a kind of a communication war where the relationship between dairy fat and the risk of heart disease was strongly contested. The debate was started by an advertisement campaign of the central cooperation of Finnish dairies where it criticized the diet cholesterol theory and claimed that the NKP lies (Mustaniemi, 2005). Anna-Liisa Rajala, a Programme Director of the Finnish Heart Association, recalls in an interview that these advertisements were printed at the same time when the new cholesterol guidelines (for treatment of elevated cholesterol-levels) were released to doctors. She thinks back: “Our [the Finnish Heart Association] CEO was in summer holidays and Pekka Puska was right in the middle of this storm – but it was good for our issue in bringing more powerful attention.”

The outcome of the great fat debate was a rapid increase of cholesterol awareness by the general public and a steep decline of butter consumption. Hence, firms were finally forced to
pay attention to an issue which did not arise in the marketplace but in society at large (Czarniawska & Joerges, 2005). However, this took place only when firms assessed that adopting a low-fat assortment would exceed a certain threshold (Abrahamson & Rosenkopf, 1993). Puska’s membership of the Centre Party of Finland, which was strong in rural areas, appears to have played a key role in breaking down this kind of resistance. Along increased consumer interest and awareness and major national changes (national guidelines regarding dietary changes and cholesterol reduction) the food industry became interested and actively involved in the project.

Although the food industry had initially resisted changes, by the 1980s it saw great potential of the initiative and a growing new market for cholesterol-lowering foods. In the 1980s, low-fat milks and spreads promoted by the project were joined, for instance, by low-fat cheeses, and ice creams (Puska et al., 2002). New food products and labels and slogans such as “low fat”, “cholesterol lowering”, and “heart healthy” became fashionable (Puska, 1999). Along the availability of such foods it then became much easier for people to comply with the scientific health message (ibid).

There was also close cooperation between the project and vegetable oil product manufacturers to develop healthier spreads. A new type of rape plant was developed that grew well in the northern climate of Finland. The Raisio Group, originally founded by Finnish wheat farmers in 1939, invested in developing and researching the cholesterol-lowering effects of this new domestic vegetable oil alternative called rapeseed oil. A specific innovation later made by Raisio was the plant-sterol based cholesterol-lowering functional foods margarine Benecol. Benecol was studied in a large clinical trial within the NKP. Puska describes Benecol as the ‘pearl in the crown’ of the project. In 1995, the results of the clinical study documenting a 14 percent reduction in the ‘bad’ cholesterol level (low-density-lipoprotein, LDL) were released in the New England Journal of Medicine, the same day that Benecol was successfully launched in Finland. Inspired by the Benecol case, companies started to contact the NKP to ask whether their products could be part of the project as well. In some cases, research cooperation was started when the effects of product usage was investigated at the population level. Health started to be increasingly important business argument as the emergence of the concept of “functional foods” signifies.

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3 http://www.benecol.co.uk/new/benecol-history.htm
To summarize, mobilization of the food industry was a long process and necessitated a lot of persuasion, health campaigns and a credible message source. Only gradually individual food companies joined in and started to launch new products. In the end, it was increasing customer demand and positive profit expectations that helped the field to find a common goal, which also gradually created a ‘common network theory’ (Brito, 2001). Indeed, this mobilized industrial networks around the heart health issue. Furthermore, health policy, including political decisions enabling and motivating transfers towards heart healthier foods were crucial.

**Mobilizing health policy**

Health policy refers to the exercise of a state’s sovereign powers for protecting human health from risks and providing health services\(^4\). Public policy and legislation tend to respond slowly to new research evidence as politicians are not so much influenced by expert statements as they are by feedback they receive from their constituency” (Puska et al. 2002:249). In North Karelia, part of the problem was that the dairy and meat farmers were receiving subsidies from the government which encouraged the production of fatty products. Indeed, the dairy farmers received subsidies based on the amount of fat in the products. The project staff worked to change also these policy issues. Changes in the policies in fact would mean new institutional rules for behaviour, new laws and norms that would guide the actions of different actors. For instance, a berry project was launched to help dairy farmers to switch to berry farming with the help of subsidies now available for the growth of berries. Finally, in 1985 the Finnish government issued a health policy statement in parliament and a new law was passed to allow low-fat spread and mixed butter and oils to compete (Vartiainen et al., 2000). These changes were enabled by growing consensus by the medical community in that high a cholesterol diet is a significant risk factor for heart and other cardiovascular diseases. The key members of the NKP project staff were invited to the Parliament to be heard on this issue. Further, after the country’s EU membership in 1995 some new reforms have neutralized the taxation burden.

\(^4\) [http://www.who.int/trade/resource/GATS_Legal_Review_15_12_05_01.pdf](http://www.who.int/trade/resource/GATS_Legal_Review_15_12_05_01.pdf)
What is the relevance and implications of the NKP to the 21st century’s concerns? According to the projections carried out by WHO, the world will experience a substantial shift from communicable to non-communicable diseases and heart disease is projected to be the leading cause of death in 2030 (WHO, 2007). Already today, in many developing countries non-communicable diseases are a more common cause of death than infectious diseases (Nissinen et al. 2001). The “diseases of affluence” are moving to poorer countries which are undergoing major social and economic changes, including the adoption of the western diet. Indeed, the development in any country is increasingly dependent on international and global determinants as lifestyles and commercial products cross borders (Puska, 1999). This is the major concern in the literature on the globalization of public health. Hence, besides vaccination programs often sponsored by philanthropic foundations, particularly the developing world needs urgent support to tackle life style related diseases.

The lessons learned in North Karelia are indeed in many ways applicable beyond the borders of Finland. Within the literature on community interventions for health promotion the NKP is viewed as a success and the project is frequently cited as the model for other international prevention trials. (McLaren et al. 2007). This was also reflected in WHO’s decision to select North Karelia as a demonstration site for best practices in public health. The basic principles are already replicated, for instance, in Chile, Argentina, China, Iran and Scotland (interviews, McLaren et al. 2007; Dunbar et al. 1998). Hence, the project has been actively linked to international networks for already decades, also through the International Visitors’ Programme organized twice yearly. Thus there is a natural basis for further internationalization of the program.

The Finnish export organization Finpro and the European Union have also capitalized on the North Karelia Project in their attempt to foster the political and economic presence of the EU in the Asia in the field of life-style related diseases. Their strategy has been to start networking at the level of health authorities and there through open doors for broader cooperation and accelerate the internationalization of companies. This necessitates, however, adaptation to the social context in question, as according to a recent study there is a strong tendency to replicate the project model of NKP without an adequate consideration of the unique context including people, place and time McLaren et al. (2007). The characteristics of
today’s “boots deep in the mud” philosophy to induce behavioural change and mobilize multilevel and cross-sectoral networks may differ greatly from the past.

DISCUSSION

Actors. Our case stresses that in the case of a complex social change process multitude of actors representing different sectors of economy are needed to induce institutional change. These actors varied from provincial representatives, health services, companies and NGOs to national authorities and transnational organizations (WHO). All these actors were linked together through the heart health issue. Personal engagement and the willingness to give face were crucial to the process. A key characteristic of the project staff was their wide connectedness across sectors – from their epistemic communities to companies and policy makers. This enabled legitimacy building and network mobilization first at the community level and later nationally and internationally. It was also crucial that the design, implementation and orchestration of the project were largely done by same the persons signalling commitment and continuance for the project.

We suggest that collective institutional entrepreneurship (Möllering, 2007; Wijen & Ansari, 2007) in complex social change processes necessitate two specific types of actors: network mobilizer(s) and mediating actors. Network mobilizer is the initial champion for institutional change who designs needed networks to support institutional change and mobilizes central nodes i.e. mediating actors. This difficult task necessitates the capability to understand what motivates different stakeholders across sectors and levels. This requires both political will and political skill to inspire greater trust and confidence in others (Soriano, 2008). Furthermore, wide connectedness is needed in order to gain cognitive and socio-political legitimacy (Aldrich & Fiol, 1994) for the institutional change. In our case, the local project group and some individuals influential and socially skilled individuals acted as issue-based network initiators. Mediating actors, in turn, are individuals and organizations capable of mobilizing large masses and bandwagons around the common issue. For instance, in our case the Marthas educated households through lay opinion leaders on healthy eating habits and kept pressure to follow those healthy habits. This resulted into “collective reprogramming of the mind” at the community level.
Mobilization at different levels and sectors. The distinctive feature of the project was its broadness and deepness; it aimed to affect institutionalized behaviour and structures from each individual to the level of the society at large. From the perspective of companies it had implications across the whole value chain: “from farm to table”. In the mobilization effort of the food industry, scientists created common ground (Wijen & Ansari, 2007) by clarifying the causes of saturated fat (and salt) intake in heart health and mediated the feedback they had received from consumers asking for healthier foods. In effect, it was this latter point that mobilized the food industry. This is in line with the IMP approach, which assumes that a prerequisite for the mobilization of companies is that they see the opportunity to exploit new business opportunities in their surrounding network (Mouzas & Naudé, 2007). Hence, the change in consumer behaviour was the key impetus for the food industry to join. Besides for the food industry, this bottom-up mobilization was central in inducing changes at the political level (e.g. taxation changes). It is important to note that in other contexts it is entirely possible that business actors lead rather than lag in the processes of institutional change.

As comes to the drivers that actors employed to spur and sustain collective change, some were the same as identified by Wijen and Ansari (2007) from the regime theory, namely creating common ground and mobilizing bandwagons. The former refers to a repertoire of tactics used by socially skilled actors to induce cooperation from both allies and adversaries (Fligstein, 1997) and the latter represents the activities of central actors recruiting large masses to generate diffusion of the collective issue (Abrahamson & Rosenkopf, 1993). Other drivers identified from the regime theory and state level analysis, in turn, seem not to apply to consumer-oriented fields. Rather we found that concepts from sociology, psychology and communication are more relevant to explain change induced from micro level.

Mobilization is reflected in network relations. As comes to the network dynamics around a common issue, we argue that there first exist different types of networks (around tasks, within and between sectors, between individuals/business/governmental actors etc.). When a common issue, which is identified and acted upon by several actors, emerges the network mobilization and collective action result in a new, issue-based network to appear. Further, this network influences also other networks, as new relations and connections are being formed and/or the existing ones are changing. Our empirical analysis has concentrated on the mobilization phase of the issue-based network. Thus we have focused on questioning what is critical for the mobilization to take place. In order to analyze the longer-term developments
(the full model as presented in Figure 1), one would need investigation of both the ‘initial’ network structures and the ‘resulting’ networks. As our analysis is retrospective and covers both a long time period and multiple level of actors, it has not been feasible to analyze in detail what the new (industrial) network structures are like.

However, already on the basis of this material we can see that the mobilization resulted in new enduring network relationships between companies and the public sector (e.g. university researchers) and the third sector (e.g. heart associations and the heart logo system). The emergence of the whole category of functional foods have strongly linked public and private research also through various networking initiatives financed by quasi-governmental bodies such as the Finnish Funding Agency for Technology and Innovation (Tekes). Furthermore, the institutional change and emerging consumer demand for healthier foods affected the companies’ product development focus and therefore, probably their business (e.g. supplier) relationships too. Interestingly, in our empirical case the industrial companies seem to have been lagging behind the other actors in acting on the issue and adopting new products (functional food).

In accordance with earlier studies on collective institutional entrepreneurship (Hargrave & Van de Ven 2006; Wijen & Ansari 2007), our empirical evidence stresses the role of social networks in institutional change. Particularly, social network positions that bridge different fields (Greenwood & Suddaby, 2006) were crucial for the ability to mobilize networks. The links across organizations (e.g. companies and NGOs) and sectors (e.g. food industry and medical research institutes) became more institutionalized only along time.

International translation. In our case, the initially local project was internationally recognized early on, which has helped its recent international translation and acceptance abroad. The Finnish actors may have also been ‘lucky’ in being in the forefront of development and early to address a nowadays global problem. There thus seem to be good potential for internationalization of the program. However, translation of the NKP model beyond Finland would need disembedding from Finland and re-embedding in other social contexts (Czarniawska & Joerges, 2005).

We summarize our discussion in Figure 3. This illustrates how the issue-based network connected private, public and third sector actors around the common issue. Furthermore, we
can find both network mobilizers and mediating actors who influenced the process. The network mobilizer is targeting key actors to act as mediating actors in the different sectors to carry “institutional work” i.e. the purposive work of individuals and organizations aimed at creating, maintaining, and disrupting institutions (Lawrence & Suddaby, 2006). These mediating actors in turn possess networks reaching the consumer level (Marthas, Heart Associations). Business sector is responsible for that people have healthy food alternatives available and the Government for that these are reasonably priced (taxation). In the future the model will probably also be internationalized with translation processes involved.

**Figure 3. Cross-sectoral mobilization of issue-based networks**

The creation of novel network relationships depends on several activities. These are based on e.g. increasing links between the health sector, universities, food industry, and NGOs. The NGOs can help to ensure that consumers ask governments and food companies to provide policies and products that support healthy lifestyles (WHO, 2004). Many NGOs have rather global networks and in a way operate between global influences and local responses. The
NGOs play a role as institutional entrepreneurs (Auplait, 2006) in affecting public opinion, and hence, affecting the regulation, funding and research projects.

In essence, to bring about institutional change, cognitive work needs to be done across levels and sectors. Our study shows that besides the capacity to build networks, there is a call for an ability to retain inspiration in the middle of challenges and show long-term commitment.

**CONCLUSIONS**

There is increasing scholarly and societal interest in how business and society interact in solving complex social problems. This paper focused on the mobilization of cross-sectoral and multilevel interaction in the area of health. While our study focuses on one national context, the heart disease as such is a problem that has global relevance. There are also other contemporary issues of high importance, such as, the cases of global climate policy and the use of child labour. In line with some earlier studies ((Wijen & Ansari, 2007, Khan et al. 2007), our analysis demonstrates that solutions to these problems call for fundamental social changes processes, and essentially, participation of diverse actors. In this way it may be possible to bring about collective action and network mobilization, which in turn lead to new types of behaviours in different sectors.

There are different drivers of collective institutional entrepreneurship from the perspective of public (Wijen & Ansari, 2007), private (Mouzas and Naudé, 2007) and third sector organizations. Much of the existing literature fails to adequately address the mobilization of issue-based networks from these diverse perspectives. We combined neo-institutional and IMP approaches to gain a better understanding of how private, public and third sector organizations may be mobilized to solve a common issue. Hence, we responded to the calls to integrate neo-institutional theory with network approaches to better understand how broader institutional factors are reflected in networks or how networks may be constructed to induce institutional change (Maguire et al. 2004).

Our insights build on the earlier identified drivers of collective institutional entrepreneurship (Wijen & Ansari, 2007) but extend them to cover the perspective of companies and consumers. We believe that our research is a step forwards in the IMP approach in that we
have discussed mobilization from a broader institutional perspective: in how specific issues emerge and shape the context in which business networks develop.

Neo-institutional research has focused on tracing how new innovations or activities become established as taken-for-granted practices while ‘black-boxing’ their origins (Lounsbury & Crumley, 2007). Quite similarly, there is a need to dissect the ‘black-box of community interventions’ i.e. how interventions result in population-wide risk reduction (Pearson et al. 2001). In this paper we attempted to open these boxes both theoretically and empirically.

Here we have focused on the mobilization of issue-based networks. As we have taken a relatively broad view as comes to the timeline and levels of analysis, we have not focused on industrial networks as such. Therefore, one limitation of this study is that we are unable to model network outcomes from the NKP project explicitly. Possible future studies may, through processual case study research (Dawson, 1997) rather than historical data that we mostly relied on, map network changes in detail along time.

Finally, this study paves the way for further, empirical and conceptual studies. Indeed, more theoretical attention should be given to conceptual integration of network and neo-institutional approaches, as well as in digging deeper in to the relationship between social movements and industrial network mobilization.

REFERENCES


