Exploring collective entrepreneurship through a case narrative

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Abstract
This paper examines collective entrepreneurship by studying an entrepreneurial process based on the central participants’ narratives. The research is still in progress. However, I present a case narrative and some intermediate conclusions, as well as an account of the event-driven process methodology I have used. Contrary to the common ideas about entrepreneurship being an inherently individualistic endeavour, some claim that we will understand entrepreneurship better when we see it as a collective phenomenon. Which aspects of entrepreneurial processes surface when they are seen as collective phenomena? Does this mean that individual characteristics are irrelevant to our understanding of entrepreneurship? The aim of the paper is to develop and substantiate this claim. After interviewing central subjects from 2003 to 2007, the analysis explores critical entrepreneurial events and their interconnections. The paper presents very briefly some preliminary findings and concept developments.

Keywords: Collective entrepreneurship, entrepreneurial process, entrepreneurial function, event-driven process study.

Introduction
During the life-course of entrepreneurship research, many have tried to specify what constitutes the nature of entrepreneurship. Advocates of the concept collective entrepreneurship suggest we break with the common notion that entrepreneurs “go it alone” and claim that seeing entrepreneurship as a collective process provides more realism to understanding entrepreneurship than studying personal characteristics of individual entrepreneurs (Johannisson, 1990, Johannisson and Nilsson, 1989, Schoonhoven and Romanelli, 2001). In this perspective, the entrepreneurial process unfolds through the interaction between individual actors, making a coordinated effort to create some new commercial activity (Spilling, 2006). Furthermore, one of the main characteristic of an entrepreneur is the capacity to establish good relationships with others, not to do everything alone (Schoonhoven and Romanelli, 2001). Rather, Johannisson (1998) suggests that entrepreneurs could be seen as social constructors, who use their agency to arrange for a larger collective effort by other individuals.

Choosing a lens is not only important to the study of entrepreneurship. It influences how people practice entrepreneurship, how it is promoted and taught to students (Fiet, 2001) and what policies the public agencies make to support it (Deakins and Freel, 2006). A single focus on the capacities of the individual entrepreneur is unfruitful and mystifies the whole phenomenon (Deakins and Freel, 2006). According to Schoonhoven and Romanelli (2001) entrepreneurship research should keep a balance between two opposing explanations of why entrepreneurial
ventures are created. On the one hand the psychological trait tradition chasing the entrepreneurial personality sparked by (McClelland, 1961), and on the other, the demand-side theory which explains new venture creation as a function of entrepreneurial opportunities in society (Thornton, 1999), independent of the present supply of entrepreneurial talent. One of the main proponents of the concept of collective entrepreneurship Bengt Johannisson, seeks to bridge the individual and the collective by presenting new ventures as the result of the interactive, coordinated efforts of individuals with different characteristics (Johannisson, 1998). Describing the interplay between the individual characters and the entrepreneurial setting is a complex task and requires a methodological practice that allows us to explore the proposition that “only in dialogue with collective forces will these individual characteristics make entrepreneurship happen” (Johannisson, 1998:5). Accordingly, the aim of this paper is to explore the proposition that “entrepreneurial activities are genuinely collective” by analyzing a process of collaboration in an entrepreneurial context. I attempt in this paper to answer how collective entrepreneurship emerges and develops through peoples’ interaction in an entrepreneurial context, and thereby to provide more research experience and analysis to the notion that entrepreneurship is a genuinely collective process. Questions of “how” processes develop over time suggest a process model approach (Van de Ven, 2007, Bruner, 1990) to the phenomenon of collective entrepreneurship in which a process is defined as “a narrative describing how things develop and change (Van de Ven, 1992) (see also section XX below). Qualitative data obtained from recurring personal interviews were used to construct the narrative. Researchers in the field of entrepreneurship are increasingly using narrative methods, interpretative analysis and qualitative data (Neergaard and Ulhøi, 2007).

Discussion
Making a scientific discovery or filing for a patent is something different from the process of bringing a usable product to the market. The entrepreneurial function is to put innovation into effect (Schumpeter, 1996) which is not linked solely to the individual entrepreneur, but to a function, a role or a task that several individuals may perform. This leads to a social perspective on entrepreneurship as a collective process. When someone set out to accomplish arduous projects, it seems even more likely that this function becomes a joint effort by several individuals each with their entrepreneurial traits (Gartner, 1989) or other personal characteristics playing an important part of the whole.

The concept of collective entrepreneurship was in large part developed by Johannisson. Johannisson (1998) seeks to demonstrate what insights might be gained when entrepreneurship is seen as generically collective. Which are the conceptual implications from considering entrepreneurship as a collective phenomenon? The concept “collective” elicits images of aggregate societal levels well above the individual such as regions, nations or global associations. Tiessen (1997) for instance studied individualism and collectivism as value systems on a national level. Furthermore, collectivism is a paradigm in the never-ending debate about the relationship between the collective and the individual agency focusing on the collective forces that impel the actor. Collective conscience for instance, was Dürkehims conception of a macro-level system of beliefs and sentiments. In an extreme collectivistic point of view collective conscience is an independent cultural system that determines individual behaviour (Collins, 1994). Collective action refers to the joint effort of an association of individuals to further a common interest or to secure a common goal (Olson, 1971). Outside the sphere of established institutions, collective action takes the form of social movements (Porta and Diani, 2006), in which the members may belong to different political parties or status groups. Collectives are not automatically communities. As Weber noted a community is more than a class or category of people sharing the same economic or market situation. A community assumes interpersonal mutuality between members of the collective, an “in-group” disposition between them. In a similar vein,
Johannissons (2004) notion of the collective “relates to Tönnies notion of “Gemeinschaft” and the Krapotkinian image of “mutual aid” and solidarity. These images point at the direct interaction between members of the collective” (Johannisson, 2004:227). Here I shall understand the collective as such an in-group community. Following Johannisson this view emphasizes how communal interaction, solidarity and trust preserves membership than how goals and interests determine why members participate in groups or organizations (Olson, 1971).

The collective can be seen as a) the idea that although all ideas originate in some individuals mind, every individual recognition of new opportunities appear in some social context, and b) the idea that entrepreneurship becomes collective when opportunities are acted upon because new venture creation requires joint collective action. The last conception is most evident in Schoonhoven and Romanelli (2001). Some writers discuss how organizing the new venture demands a collective effort. For instance, how the coordinated efforts from many individuals and institutions provides cognitive and socio-political legitimacy needed to create new markets (Aldrich and Fiol, 1994). Others touch upon the importance of the collective as a context of confidants (i.e. such as business associates, friends or family) with whom the entrepreneur tests and conceptualizes her business ideas. One way to elaborate this is to say that entrepreneurship occurs when an individual takes some element out of the strictly private and makes an intentional choice to focus others’ attention on it. Conceptions like entrepreneurial cultures (ref) and innovative networks (ref) imply that the collective contributes even at the point of opportunity recognition.

In this paper, I wish to explore the entrepreneurial process as a collective learning process and thus underline the conditioning effect of the social context in which learning develops. The collective may affect entrepreneurs with regards several important aspects of entrepreneurship such as learning how to be entrepreneurial (Minniti and Bygrave, 2001), or learning about managing growth and organization-building. However, I adopt the view that “the specific type of learning that underlies and sustains the development of a new way of connecting recourses, technologies and needs in a value-generating way is a distinctive feature of entrepreneurship (Ravasi et al., 2004:166). This feature emphasizes the ability to connect and relate ideas, knowledge and recourses from a host of internal and external sources as the entrepreneur, or entrepreneurial partners take the initial innovation into a product by involving a growing network of contributors. This does not mean that other aspects of cognitive and behavioural development in business, such as developing managerial skills or adaptive learning of behavioural routines are unimportant. As market structures change faster and product cycles become ever shorter however, the exploration of new combinations of recourses is a qualifying feature of entrepreneurial action (Ravasi et al., 2004) that justifies specific investigations of learning in the entrepreneurial context (Harrison and Leitch, 2005).

A narrative approach has been justified for entrepreneurship generally (Steyaert, 1998) and for entrepreneurial learning in particular (Warren, 2004, Rae, 2006, Rae, 2000) as learning in entrepreneurial contexts is viewed as an extremely complex dynamic phenomenon requiring higher generative learning processes more than simple adaptation of routines (Ravasi et al., 2004). Entrepreneurial learning can be characterized as an idiosyncratic process, that takes place unintentionally (Warren, 2004), or even by accident, while entrepreneurs are busy solving practical problems. If entrepreneurs are alien to actively reflecting on their own activity, their learning and practicing may evolve in parallel, unconnected tracks.

Johannisson (2004) proposes that personal networks exemplifies how the collective provides a learning context for the entrepreneur. It is not unproblematic however to assert that learning automatically happens for two reasons: First, self-reliance, the trust in one’s own ability to solve
problems is still, both in theory and in common sense logic a defining characteristic about entrepreneurial individual. Second, entrepreneurial opportunities are created by market and technology change, insecurity and multiple interpretations and will logically result in unstable beliefs about how to assess the value of others practical experience or theoretical expertise in and between technological fields. Rather than to assume that entrepreneurial learning is the logical result of knowledge infrastructures such as industrial development centres, competent capitalists, incubator facilities or business networks etc. it is interesting to explore the learning dynamic between individualism and collectivism. (These authors do not explicitly propagate such a logic but underline the importance of structures for knowledge transfer from practitioners or science experts for success in developing new technology ventures.) Thus, a topic of particular interest would be how entrepreneurs relate to knowledge mediated through others. Does the self-reliant entrepreneur have the ability to acknowledge his or her need to learn from others or to seek advice? When does it make sense to follow advice?

My last point from this review of the literature on collective entrepreneurship is that the function of this term varies to some degree. Some use the term when they infer general conclusions from empirical studies. In Schoonhoven and Romanelli (2001) this approach is used to do away with the myth of “the lonely only” entrepreneur. Another way to use collective entrepreneurship is to think of as a sensitizing concept (Blumer, 1969) which will be more like Johannissons “attempt to demonstrate what insight might be gained by seeing entrepreneurship as collective …” (Johannisson, 1998:6).

METHODOLOGY
This paper employs collective entrepreneurship as a sensitizing concept (Blumer, 1969) for studying a concrete entrepreneurial process. Blumers (1969) critique of definitive concepts and the concept-indicator model used in quantitative social research is a central backdrop for the meaning of this term. Blumer claimed that researchers who elaborate concepts by finding indicators imposed a false fixity on the social world. Once developed, the proxies that quantitative researchers used to measure the phenomenon reduced it to a few common denominators, thereby producing insensitivity to its nuances and to alternative ways of viewing it. Sensitizing concepts on the other hand provided “a general sense of reference and guidance in approaching empirical instances “. When the concept of collective entrepreneurship is employed in different social contexts it gives a general direction of what to look for (Bryman, 2001).

Although many qualitative researchers could accept the view that empirical research is guided by concepts and try to avoid imposing predefined concepts on social phenomena (Bryman, 2001) it is not without problems. For one, it is still uncertain what it is about some concepts that make researchers who use them more sensitive and to what they become more sensitive of. Second, if the concepts are too broadly defined, they may fail to point out anything specific, and if they are too narrow, they may reproduce the problem that Blumer identified with definitive concepts. Nevertheless, in this paper, I wish to explore the implications of using collective entrepreneurship as a sensitizing concept and ask: 1) what is the genuinely collective element about this process? and 2) which problems can be formulated as a consequence of this perspective, that have applicability beyond the situation in which they are observed?

Selection of case
I selected OceanSaver as a site for studying collective learning in entrepreneurship for the following reasons. First, during my fieldwork at Kongsberg Innovation, there were signs of collective behavioural change among the members of the project. Second, entrepreneurial process involved a large number of different stakeholders that had to be effectively managed.
Third, since OceanSaver had become a partner of Kongsberg Innovation the year before my fieldwork started, information about the development of the partnership was available from both parties.

**Narrative analysis**

Narrative analysis has been used in previous research to gain understanding of learning processes of individual entrepreneurs as well as how the learning then pervades a broader environment (Warren, 2004, Ravasi et al., 2004) to include those directly employed by the enterprise or a broader range of stakeholders. The story presented here contains intersubjectively agreed events and facts as well as reports of subjective experience and feelings. It is not portrayed as pure description of “real” events in the sense that no other interpretation of the data and their connections are possible (Warren, 2004). Neither does the final text represent a straightforward production process. The text is a co-production between the storytellers and me, as both author of a scientific text and as a “consumer” of their stories (Czarniawska, 1998, Czarniawska, 2004, Johansson, 2004). As text, the story should be interpreted in this context, as a social (re)construction of real historic events, made accountable by such structuring devices as research questions, analytic methods and linguistic creation of the researcher (Warren, 2004).

However, there are some problems associated with this kind of storytelling. For example, it may provide opportunities for the respondents to rationalize success or failure, and for reinforcing their self-esteem. The ambiguous reality of each narrative told from different viewpoints produces coherence and meaning out of a complex matter. With this in mind, several interviewees were asked to elaborate upon the same incident or topic from their own standpoint. This way there was a chance to check statements (Here I used several employees at Kongsberg Innovation who were bystanders to the process) and return to issues that seemed ambiguous or unclear from the start, with the use of a careful probing approach to maintain an open and confidence-inspiring relationship with each interviewee.

**Data collection**

Interviews were arranged with the main participants as well as some of the members of the larger community surrounding the core team. Kongsberg Innovations’ board of directors approved my fieldwork after I sent a letter containing my purpose and requests. Similar approaches were taken towards other institutions. Kongsberg Innovations’ managing director was a door-opener that gave access to pivotal sources, such as the founders of OceanSaver. Interviews with staff members at KI gave valuable background information and sometimes helped validate or reformulate my hypotheses about how the events were interconnected.

My questions traced the patterns of interaction between the team members and the external partners. They also queried how these relationships developed and how they contributed to the refinement of the entrepreneurial venture. This was helpful in capturing the complexity of the entrepreneurial process as it unfolded from the initial idea to the final version. The interviews requested information that could determine the validity of causally linking events. Where I found inconsistencies in the reports from different team members I asked for elaborations of specific details in follow-up interviews until I sensed they were resolved as much as possible. Once written up, I returned the case narrative to the primary interviewee for comment and amendment [in process].

Two major aspects make the qualitative approach valuable for my purposes. First, the unstructured personal interviews allowed the interviewees to describe their own impressions in appropriate detail and using their own words. Thus, at the point of data collection the interviewees determined largely what to emphasize as important. The main advantage of allowing
the interviewees to tell their own story was that structure and logic derive from them in a way that enabled this explorative research to refine the sensitizing concepts. Secondly, it provides possibilities for the generation of extensive and contextual data that can contribute deeper insights into the problems of the situation.

**Process analysis**

In designing this study, I have used the concept *process* as “an event-driven approach that is often associated with a “process-theory” explanation of the temporal order and sequence of change events based on a story or narrative” (Van de Ven, 2007:196). “How” questions require narratives explaining an observed sequence of events in terms of a plot or an underlying generative mechanism that has the power to cause events to happen in the real world and the particular instances or contingencies that occur when these mechanisms operate” (Bruner, 1990, Tsoukas, 1989, Van de Ven, 2007:145). In this vein, collective entrepreneurship is not viewed as a variable and in result; the aim is not to find suitable proxies to measure causal effects of collective entrepreneurship. The *central subjects* are individual entities (people, groups, organizations, machines and other material artefacts) around which the narrative is woven.

In event-driven process analysis, “events are the natural units of the social process” (Van de Ven, 2007:155). In this paper, the sequence of events starts in 2002 and last up to 2006. As I hope my process write-up and intermediate analysis will convey, there were enough incidents and events to study within this time-span for me to create grounded sensitizing concepts and to analyze their possible connections, conjunctions, iterations and conflicts.

Narratives have a central role in process model explanations. It is in the story that a sequence of events and incidents take place. Below, I shall discuss different ways events and incidents can be linked. Aldrich (2001) distinguish between *outcome-driven explanations*, which explain the outcome by referring to the input factors (independent variables) that caused it, and *event-driven explanations* which explains events by referring to their consequences on subsequent events. As illustrated by figure 1 event-driven explanations are built “forward”, from observed events to outcomes while outcome-driven explanations (not included in figure 1) are built “backwards” from events (considered as outcomes) to the factors causing them.

![Event-Outcome Diagram](image)

Source: From (Aldrich, 2001)

One way to conceive of a process is to think of a fixed unit that progresses through a sequence of ordered steps or stages toward a predefined goal. This is the model of a unitary progression (Van de Ven, 2007). However, many social processes reflect far more complex progressions than such a linear model. In my present analysis of the entrepreneurial process, I assume that multiple, cumulative, conjunctive and recurrent progressions are alternative models (Van de Ven, 2007) that helps me articulate the meanings of interconnectedness sharper and more effective. When constructing a narrative about a process there is always a danger that the researcher “shapes the landscape to fit the map”. Having multiple models to conceptualise interconnectedness may reduce the researchers’ risk of misinterpreting the data. Therefore, I have presented the intermediate research results in the last section (Conclusions) in terms of unitary, multiple, cumulativa, conjunctive or recurrent progressions when there is a good chance they might deepen the meaning of the emergent concepts I develop.

The analysis focused on the collective elements in the project represented by the number of collaborators at different phases in the development of OceanSaver. A particular question was what the individuals thought they gained through cooperating and sharing knowledge. How did these actors come to collaborate and willingly coordinate their efforts into the same purpose? How do they perceive the cost and benefits from choosing to cooperate? Which were the obstacles preventing cooperation?

THE CASE NARRATIVE

Introduction to the problem of harmful aquatic organisms in ballast water
When ship carriers travel from The Baltic Sea to the Pacific, or the Mediterranean to the Great Lakes they are not only carrying goods and merchandise. They contain also ballast water filled in basins in the ship hull. Ballast water is important for the stability of the ships, but it contains a variety of organisms that can harm sea-life when it is released back into the sea. For instance, the Northern Pacific sea star was introduced to Australia by ballast water from Japan in the early 1980’s. A jellyfish, “the Mnemiopsis leidy”, came to the Black and Azov Seas and wiped out the anchovy and sprat fisheries causing an annual loss in the region of 200 million USD. In the year 2000, the Canadian government estimated to use 500 million USD on repairs over a period of ten years due to damages on the Great Lakes caused by the zebra mussel. These and hundreds of other serious invasions, which have been recorded around the world², resulted in the International Convention for the Control and Management of Ships’ Ballast Water and Sediments (the IMO convention) February 2004. The IMO convention specifies technical standards and requirements in the regulations for the control and management of ballast water and sediments. The passing of the IMO-convention marks an important institutional event, causing a leap in the ship-owners’ demand for international vessels with integrated treatment-technologies on board.

Two discoveries of possible treatment methods for ballast water
Two different teams of entrepreneurs had started working on two different technological concepts, but they eventually managed to merge them into one treatment system. This led to the new company OceanSaver. OceanSaver promises not only to meet the performance standard set by the IMO convention, but also to reduce corrosion in the ballast water tanks and thereby to reduce maintenance cost for the ship owners. This story describes some critical stages and transitions in the collaboration process that led to the finished product.

² Reference: IMO convention papers
In the 1980’s Kjell Varenhed was involved in fruit transportation from New Zealand to Europe. In order for the fruit to arrive the discharging port without being too ripened, nitrogen was produced and applied into the cargo holds of the vessel. Mr. Varenhed discovered that water remaining in the cargo holds had taken up nitrogen. His further studies identified that the nitrogen gas had dissolved most of the oxygen from the water. Mr. Varenhed found further that this also had the potential of reducing corrosion rate for steel being in contact with water. Later, he and his colleague Stein Foss purchased the rights to use a patent filed by Anders Jelmert at the Institute of Marine Research in Norway who worked on issues related to ballast water in 1995-1996. He discovered that strong nitrogen supersaturation in ballast water would harm (actually produce severe “divers bends” in) the susceptible organisms. In fact, all organisms depending on oxygen would die and therefore be no threat to the receiving aquatic environment. Still, some organisms would survive being deprived of oxygen. An additional technology was commenced by Aage Bjørn Andersen, a marine biologist who was involved in the establishment of a testing protocol for ballast water treatment systems. He discovered that pressure-shocks typical to those experienced when cavitation occurs had a significant impact on organisms. This discovery lead him into researching enhancing mechanisms for setting up pulsed shock waves (e.g. cavitation) in a water flow for the purpose of eliminating non-native aquatic organisms in ballast water.

The discovery of nitrogen saturation and cavitation are entrepreneurial events. These events led to the key elements in the OceanSaver system, which has won several innovation prices. However, how did these separate teams manage to merge their technologies? The passages below describe some critical phases in the collaboration process. The account sorts out three phases 1) the discovery of entrepreneurial opportunity 2) network collaboration in order to access control over recourses 3) collaboration in order to improve the final product.

The text is constructed from personal interviews with Mr. Stein Foss and the manager and staff members at Kongsberg Innovation (KI), a corporate incubator unit (Becker and Gassmann, 2006) owned by a group of companies in the maritime and defence sectors located in Kongsberg, in the Buskerud region.

1. Formulation of the entrepreneurial opportunity
The person who initiated the process from discovery to commercialisation was Stein Foss who had a lengthy technical and commercial background from the shipping industry. He was then main shareholder and officer in Thermo-service a supply company of cooling-isolation for ships. He told this story about how Kjell Varenhed gave him the idea:

Kjell is 60 years old now and he has been a sailor for all his professional life. When he came to me with this idea, I didn’t have a clue what he was talking about. I knew what ballast water was and I knew what nitrogen was, but I didn’t know that ballast water

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3 “Cavitation is achieved when bubble formation show large growth followed by rapid and violent collapse. Physical effects result when cavitation is intense enough to rupture cell membranes, free particles from solid surfaces, and destroy particles and organisms through particle collisions or by forcing them apart”. (see http://www.metafil.com/metafil/start.htm)

4 Kongsberg Innovation adds value to the portfolio companies though their internal expertise as well as competencies found in the parent companies. Their contacts with customers the maritime, subsea, defence and electronics sectors are equally important. The purpose of this small unit is to facilitate new venture creation from business ideas inside the owner companies or from external ventures that match the parent companies’ technologies and markets.
represented a problem and I didn’t know that nitrogen could be used to solve it. I took Kjell to see an architect of ship interiors and the architect made a drawing of the system based on his ideas. With this drawing, I got a meeting with Höeg Fleet Service. Since then, they have given us important backing and eventually they invested in our company.

It is absolutely necessary for us to have faith in the people behind the idea. We must think they have what it takes to make thing happen, or be humble enough to joint with others who can. This team was unique. They had the drive, the business experience and the perfect mix of self-confidence and humbleness. – Torkil Bjørnson, Manager, Kongsberg Innovation

Mr. Foss and Mr. Varenhed had initial meetings in November 2002 concerning how to realize the idea and soon after established their own company, Foss & Varenhed, to work with the ballast water technology. By mid 2003, they had written a business plan, ordered lab tests from Det Norske Veritas on nitrogen supersaturation, and initiated dialogues with Höeg Fleet Service (a ship owner company that previously bought supplies from Thermo-Service) and Statoil ASA.

2. Network collaboration in order to access critical recourses

We then established Foss & Varenhed Enterprises AS and as we were looking for allies, I attended a national innovation-conference and heard a presentation of Kongsberg Innovation, which I thought was exactly the partner we needed. You know, to get some backing instead of going at it all alone. Two months after this, we signed an agreement to become partners. I immediately liked and respected the people there and felt that we could accomplish something together. It took some time before I came to know that the people at KI had an extremely wide network. For instance, they had a close connection with Statoil who had always been an interesting partner for us. – Stein Foss, CEO, OceanSaver

We were in dialogue with the entrepreneurs at every step of the way. We reviewed the business plan and verified the technology together, sourced demanding customers, technology and financing together etc. KIs role was to prompt and facilitate these processes and hook them onto the right competence. For instance, they got expert help from one of our owner companies, who also got them admitted to a meeting with Hyundai Heavy Industries. – Line Myhren, staff member, Kongsberg Innovation

Kongsberg Innovation would only invest their time, expertise and network abilities in Foss and Varenhed, not provide funding. Mr. Foss, was unaccustomed to thinking that knowledge and network access could be traded for company stocks. In retrospect, he says:

To be honest, I thought that we already had a quite competent team and that KIs share had better be small. I am very glad I changed my mind.

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5 Höeg Fleet Service is a major ship-owning company.
because KI has been instrumental for us in gaining funding from other sources. We had never achieved the same amount of credibility without them, and the reputation they get from the well-known names of companies in Kongsberg Industry. Their connections with Statoil and Innovation Norway among others, was what it took for us “little grey mice” to gain the credibility this is all about. I think that entrepreneurs are too greedy in the first place. After all it is better to get a smaller share of something really good, than a big share of nothing. – Stein Foss, CEO, OceanSaver

It is hard to sell just competence to the entrepreneurs because we have to show them what that competence is. It is hard to say “well we can help you with this and that” before we have worked together for a while. Some of them realize this – especially those with some experience – they know they need partners, but entrepreneurs often think twice before they trade company stocks if it is a bit woolly what they get in return. – Line Myhren, staff member, Kongsberg Innovation

It is a big pedagogical challenge to make people understand the value we add for those who have not been through it yet. – Torkil Bjørnson, Manager, Kongsberg Innovation

… Mr. Foss explained that since Kongsberg Innovation and he had rapidly developed a good personal chemistry and trust, they continued to collaborate for one year before starting to write a formal agreement about their terms.

We chose not to discuss the size of the share in advance. It felt right then, it really did, but there was a tough bargain about shares at one point because we disagreed about the value of our contributions, respectively. The distance between our claims was so large that I was sure it would not work. Still, both parties respected each other and listened to each other’s arguments. We both reached out as far as we could and eventually everybody is happy. – Stein Foss, CEO, OceanSaver

We thought that we added value to the company worth more than what they thought. It is always difficult to assess the value of the company up against the value of our contribution. We should have done it sooner, but managed to work out a solution because of mutual trust and respect. – Torkil Bjørnson, Manager, Kongsberg Innovation

Having resolved their disagreement over the issue of ownership shares, OceanSaver and Kongsberg Innovation were determined to solve a technological problem. Their tests showed that nitrogen was inadequate as a stand-alone solution. Having considered complementary treatment methods like ozone-addition and infrared light, they found electromagnetic shock pulses, i.e. cavitation, patented by Mr. Åge Bjørn Andersen, most promising. Mr. Andersens partner was Campus Kjeller in Oslo who had hired Mr. Bjørnson services prior to his employment at Kongsberg Innovation.
Campus Kjeller and Kongsberg Innovation saw, long before the two entrepreneurs did, that the two projects ought to become one and used our connections to Statoil to make it happen. – Torkil Bjørnson, Manager, Kongsberg Innovation

The entrepreneurs, their respective incubator partners, Kongsberg Maritime, Statoil, and a market consultant met for two-days to discuss a possible co-development of the two technologies into one development project. Their following conclusions were that 1) the two technologies could cleanse ballast water of all living organisms if they were integrated into one system. 2) Nitrogen had the effect of reducing corrosion in the ballast water tanks and could thereby reduce maintenance cost for the whip-owners; thus forming a “positive” sales-pitch not just a preemptive one 6. 3) By merging, the two teams could avoid potential conflicts between their respective patents. 4) These “synergy-effects” would increase the chances for obtaining private and public funding.

After a long, long process, we were able to merge the two projects, but the technology was one thing, the two entrepreneurs was another. They were strong individuals. Neither of them wanted to be inferior to the other. There was a potential IPR-conflict between them. There was a lack of personal chemistry and respect and there were cultural differences. One was a scientist with theoretical insights, the other a practitioner who could rig and repair. After a while, they realized that both competencies were important, and worked it out eventually. – Torkil Bjørnson, Manager, Kongsberg Innovation

Although the personal chemistry and cultural differences were important hurdles to overcome, the informants emphasize that they found a solution through a new formal company structure that fuelled their different motivations to collaborate.

Aage Bjørn Andersen said from day one that he wanted to develop technology. We come from a ship-supply business and our goal was to make and supply a commercial product. The solution was to establish one company to handle technology development and new applications, and one company to make the OceanSaver product. – Stein Foss, CEO, OceanSaver

Two ship-owner companies installed a treatment system for ballast water that combines nitrogen supersaturation with the cavitation-technique on pilot-vessels.

Table 1: Overview of important event (below)

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6 By “positive”, the informants referred to the customers’ self-interested reasons to by the ballast-water treatment system, meaning that the ship owners would shrink from buying it as long as possible if their only reason for doing so was to comply with IMO standards.
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<th>Actor/institution</th>
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<th>2003</th>
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<tbody>
<tr>
<td>1. Høeg Fleet Service</td>
<td>Customer of Mr. Foss since 1995</td>
<td>Contacted by Foss in Dec. 2002</td>
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<td>2. Fednav – ship-owner company</td>
<td>Zebra mussel crisis</td>
<td>Contacts DNV for help with ballast water tr.</td>
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<td>3. Campus Kjeller, Oslo, business incubator</td>
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<td>Workshop meeting</td>
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<td>4. Aage Bjørn Andersen – researcher at Det Norske Veritas</td>
<td>Discovers effects of cavitation E4.1</td>
<td>First meeting with Mr. Foss E4.2</td>
<td>Workshop meeting E4.3</td>
<td>Project merger E4.4</td>
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<tr>
<td>5. Kjell Varenhed and Stein Foss – partners in ship-isolation business</td>
<td>Discovers effect of nitrogen supersaturation E5.1</td>
<td>Exchange of discovery OceanSaver AS established. E5.3</td>
<td>Conflict about ownership shares E5.4</td>
<td>Workshop meeting E5.5</td>
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<tr>
<td>6. Kongsberg Innovation, business incubator</td>
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<td>Contact meeting and partnership E6.1</td>
<td>Conflict about ownership shares E6.2</td>
<td>Workshop E6.3</td>
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<td>7. Innovation Norway</td>
<td>Est. as a new public policy programme</td>
<td>Regional Innovation Program</td>
<td>IFU-contract with the ballast water project</td>
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<td>8. Statoils Loop program</td>
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<td>Contact with CK &amp; KI</td>
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INTERMEDIATE RESULTS FROM THE ANALYSIS

In analyzing the process, I have assessed and interpreted critical events, recurring events and the interconnections of events in progression. These have resulted in three broader themes presented below.

Belief in the competence others
The narrative as a whole suggests how an entrepreneurial project takes new directions during the process. Some events and choices result in the project taking new pathways, which may substitute or moderate the meaning of earlier events. The results of these non-unitary progressions are uncertainty, and ambiguity. What I find interesting here is that the actors choose to believe in the value of each other’s competences even if it is uncertain and ambiguous what value that competence will have to their project. As a counterbalance to the received wisdom that entrepreneurs have strong belief in their own competence, this story suggests that they also can have a strong belief in other’s competence.

Dialectic between the collective- and the individual project
Another recurring theme is how entrepreneurs try to look after their different individual projects at the same time as the project involves an increasing number of stakeholders, i.e. becomes a collective effort. In several of the reported events, the entrepreneurs risk to loose their original life-projects in the vigorous collective forces. Thus, I find in this a dialectic relationship between the individual autonomy of the entrepreneurs and the collective entrepreneurial effort. The dialectic, one might say, drives the process forward towards give-and-take compromises between individualism and collectivism. I find this element in how both Mr. Foss (the autonomous entrepreneur) (Johannisson and Nilsson, 1989) and Kongsberg Innovation (the community entrepreneurs) (Johannisson and Nilsson, 1989) stress the importance of keeping a good dialogue and mutuality in the continuous negotiation.

In addition, some of the events substantiate the role of governance structures that provides a space for the autonomous entrepreneur to realize his autonomous project inside the collective project. In the following analysis, I would like to conceptualize how the governance structure (company structure, juridical ownership, informal trust etc.) enables the entrepreneur to have a sense of autonomy and security within the collective project.

Process studies as a counterbalance to rationalistic and instrumentalist views
By using process studies, researchers can become more sensitive to change processes, such as contradicting and interrupting events that other methods may not catch equally well. Other research methods such as surveys and static network analysis may also yield fruitful findings, however they may invite the researcher to preconceive the unitary progression model as the only way to think of elements of entrepreneurship. The result may be one-sidedly rationalistic and instrumentalist if the researcher conceives processes as progression through a sequence of ordered steps or stages toward a predefined goal. The process shown in this paper suggests that even strong-willed individual entrepreneurs understand that they venture into a social process, which reflects far more complex progressions than such a linear model.

Lastly, I have come to the conclusion that entrepreneurs who understand their project as a complex process have the ability to believe in the value of other’s competence enough to wait for situations in which the other’s competence is validated or not. Therefore, I plan to explore how strongly researchers assume that entrepreneurs only enter into relationships once they have
determined which relationships are crucial to the success of his or her new venture. I believe that the success of this case depends on a different logic, the abductive logic. It suggests that only when the entrepreneur has spent his time building, negotiating, and maintaining relationships will he have determined which ones were crucial to the success of his venture.

REFERENCES


