Innovative Short Food Supply Chain Management for Swedish Small-Scale Dairy Farmers: The Cases of Åre Bondgården and Oviken Ost

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Innovative short food supply chain management for Swedish small-scale dairy farmers: The cases of Åre Bondgård and Oviken Ost

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Abstract

This study investigated two small-scale dairy producers from the Swedish region of Jämtland with the aim to develop recommendations for innovative project ideas for which they may receive funding by the Swedish Board of Agriculture and knowledge support by so-called Operational Groups. The focus of these project suggestions remained on finding ways to enhance Swedish small-scale dairy farmers’ position on the market where they face competition with powerful large-scale dairy cooperatives that set the official targets for the national dairy sector. In more general terms, this study attempted to provide examples on how to recreate the relationship between food producers and consumers as well as to reconnect latter to the origins of their food. In this context, the term innovation has been reviewed with regard to its common understanding in entrepreneurship and research. Thus, the present study argued that innovation has been defined in a too narrow sense which is why it should be expanded further to social and even societal innovation. Applying these terms, an inventor would equally have to consider how people deal with his invention and how its application might not only cause a short-term trend but eventually result in a long-term societal change. The conducted case study research mostly included observations and interviews with the farmers at Åre Bondgård and Oviken Ost. These provided an insight into their values and approaches to their businesses as well as about their ways of overcoming legal barriers, of facing challenges and of implementing new ideas. This information was taken into account when developing the aforementioned project suggestions in order for them the eventual support to be as effective as possible. The study concluded that networks become very important for small-scale farmers when sharing and developing further their innovative ideas and that these might not forcefully be driven by competition with other producers in the same sector.

Keywords: Sustainable Development, Innovation, Short food supply chain, Small-scale dairy producer, Operational Groups, European Innovation Partnership on Agricultural Sustainability and Productivity

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Innovative short food supply chain management for Swedish small-scale dairy farmers: The cases of Åre Bondgården and Oviken Ost

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Scientific summary

In the last years, consumers recognized that they might only know little about the origin and the way of production of their food. This seems a good opportunity for small-scale farmers to reintroduce local and high-quality food. In this respect, the support by so-called Operational Groups in the frame of the European Innovation Partnership on Agricultural Sustainability and Productivity may become of special importance by helping to build up innovative short food supply chains. Though, Swedish small-scale dairy farmers face various challenges on the national dairy market which is particularly due to the fact that the large-scale dairy cooperative ARLA keeps on pushing the milk prices at a very low level. Besides, its power position may influence the design and content of official national legislations on food hygiene. The research for this paper has been done in the form of two case studies at the farms of Åre Bondgården and Oviken Ost with the aim to develop recommendations for innovative projects. This has been accomplished by observing their settings and by conducting interviews in the form of specific and open-ended questions. The observations lead to subjective impressions and information that were to be confirmed, denied or completed during the interviews. The collected data was analyzed with the help of the so-called Pentad Framework for Responsible Businesses facilitating the process of identifying key stakeholder relationships and the farmers’ values. Åre Bondgården is currently in the process of building up a new supply chain where a lot of issues remain to be discussed whereas the raw milk cheese producer Oviken Ost has a quite settled supply chain. Communication and empowerment seems to represent an important tool for Åre Bondgården to achieve the change they would like to see in people’s attitude towards raw milk. Feedback given by wholesalers and restaurants is useful for Oviken Ost in improving their products and guaranteeing a high product quality standard for their customers. The network for local artisanal producers called Eldrimner serves as a platform to share their expertise with other local small-scale producers in order to help them in putting their ideas into practice. The implementation of a milk filling station has been suggested as a means for Åre Bondgården to promote raw milk and its benefits to potential consumers. The project suggestion for Oviken Ost consists of the selling of skim milk as an energy drink to uphold a healthier lifestyle and to offer an alternative to conventional energy drinks. The study concluded that communication and networks become very important for small-scale farmers when sharing and developing further innovative ideas and that these might not forcefully be driven by competition with other producers in the same sector.

Keywords: Sustainable Development, Innovation, Short food supply chain, Small-scale dairy producer, Operational Groups, European Innovation Partnership on Agricultural Sustainability

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1. Introduction

1.1 Background and problem formulation

Raw milk represents a controversial issue in Sweden as large-scale dairy cooperatives like ARLA pasteurize milk in order to respond to official hygiene restrictions and to guarantee a long shelf life for their products. Thus, many people view raw milk with skepticism and associate its consumption with health issues because it has officially been declared as a threat to consumer’s lives (Livsmedelsverket, 2014b). One needs to know that ARLA is holding a share of about 70 percent on the Swedish dairy market and that global supply has been pushing milk prices at a price of about 7,5 Swedish Crowns per liter so that Swedish dairy farmers have hard times to cover their costs and to guarantee their economic viability (LTO Nederland, 2014; Söderberg, 2013; Sveriges Radio, 2012). The present study deals with Innovative Short Food Supply Chain Management which is the main topic of a focus group within the so-called European Innovation Partnership on Agricultural Sustainability and Productivity, abbreviated EIP-AGRI (EIP-AGRI, Service Point 2014a; EIP-AGRI, Service Point 2014c). The European research and innovation framework Horizon 2020 is among others contributing to the aims of the EIP-AGRI and divided into a number of priorities. Among those are the so called Societal Challenges that shall be tackled with a Multi-Actor approach and with the creation of interdisciplinary Operational Groups around concrete innovation projects suggested by farmers that they require funding and additional know-how for (European Commission, 2012; European Commission, 2013a European Commission, 2014b). The overall objective of the aforementioned focus group is to find ways to trigger growth of European short food supply chains regarding the amount of producers involved and their volumes of production. In order to know more about how the regional context and legal conditions shape their approaches and the way they are running the distribution of raw milk products to consumers, two small-scale dairy farm businesses located in the Swedish region of Jämtland called Åre Bondgård and Oviken Ost have been subject of a case study research.

1.2 Literature review

While global food chains have been continuously expanding during the last years, there seems to be a growing debate on how to rearrange food supply chains in alternative ways in order to reconnect consumers with producers and to recreate the link between agriculture and food production (Hingley, 2005; Morgan, Marsden & Murdoch, 2006, seen in Lowe et al., 2008).

![Fig. 1: Logistics management processes from supplier to consumer stage including material and requirements information flow, taken from Christopher (2011, p.11)](image-url)
Traditionally, supply chain management (Fig.1) is defined as “the management of upstream and downstream relationships with suppliers and customers in order to deliver superior customer value at less cost to the supply chain as a whole” (Christopher 2011, p.2). Based on these underlying assumptions along supply chain management and the attempt to build up alternative types of food supply chains, origin and quality of the respective product as well as value added for the producer and an affordable price for the consumer represent major aspects to be considered (Moya Kneafsey et al., 2013). Nevertheless, Christopher (2011, p.3) argued that it might be favorable to rephrase the term supply chain management into “demand chain management” to indicate that the demand for a product is, besides a set of suppliers mainly driven by the customers.

Marsden et al. (2000) and Renting et al. (2003) distinguished several types of short food supply chains with differing levels of consumer-producer interaction. These may include purchasing food directly from the production site or on farmers’ market where one has a face-to-face contact with the producer. The product may also be bought in a local store where one would come to know more about the product’s local origin. In contrast to the latter mentioned type, products of the third one are purchased outside of their original region but consumers get related product information through the product’s packaging and labels (Moya Kneafsey et al., 2013). As investigated by Kirwan, 2004; Seyfang, 2008; Kneafsey et al., 2008 (seen in Moya Kneafsey et al., 2013) an increasing number of consumers choose locally produced food out of concern for the environment, for their health, and out of the perception that they are able to contribute to the local economy and to the economic viability of small-scale producers. Furthermore, it was estimated that the chances of building short food supply chains would be higher in urban centers with densely populated areas than in rural sparsely populated areas. In Nordic countries large producers and grocery chains dominate the food market and only few possibilities for small-scale producers exist to distribute their produce. Nonetheless, smaller food businesses currently reconsider the idea that food has the potential to reconnect individuals in the society but also whole communities (European Commission, 2014a).

In Europe small-scale producers are mainly being considered as farms that have been run by the same family for several generations where an average land size of about 14 hectares is farmed and the business is well established. European large-scale producers have an average size of 100 hectares of farmland or more (Matthews, 2013). A study conducted by the EFSA Panel on Animal Health and Animal Welfare (2014) stated that in many Eastern European countries one would still find the highest amount of small-scale businesses with an average number of dairy cows ranging from 1 to 6 per farm. These would be followed by the European leaders in milk production Germany and France which have a lower number of small-scale holdings but with a higher average number of dairy cows, namely ranging from about 30 to 40 cows per farm (EFSA Panel on Animal Health and Animal Welfare, 2014). There is a significant difference to small-scale farmers in Africa or South-East Asia. For these regions the Food and Agriculture Organization of the United Nations (2012) and The World Bank (2013) mainly refer to small-scale farmers as owners of one to 10 hectares of land who use part of their produce for their own consumption and the rest to gain income. In point of fact “(…) milk production is significantly lower in the developing world: globally, the mean dairy herd size is around two cows, (…), cattle in India and Sub-Saharan Africa provide a meager average yield of between 5 to 2 liters per farm per
day (respectively)” (Scientists Without Borders, 2013). In those regions, the animals are fed with by-products of agriculture and they are mostly grazing outside on the farmer’s own pastures (EFSA Panel on Animal Health and Animal Welfare, 2014).

Innovative short food supply chain management entails also the term innovation. Already in the 1930s the economist Schumpeter distinguished the encounter of an entrepreneurial opportunity or invention and its successful exploitation corresponding to an innovation. According to his argumentation firms should intend to learn from previous experiences and find ways to cope with occurring challenges and barriers. Once an innovation took place, it would have a domino effect on other businesses trying to imitate the original idea (Alvarez & Busenitz, 2007). “Innovation may either be incremental, offering an advantage over previous technology or practices, or it may be radical or disruptive, bringing in something completely new that eventually displaces what was there before” (Christensen, 1997; Danneels, 2004 seen in Lehtola & Stähle 2014, p.153). Thus, it should have the potential to generate economic growth and social welfare (Pehrson, 2015a). In the context of the EIP-AGRI it is specified that innovation should be understood as entrepreneurial but also be of organizational and social nature (European Commission 2014a, p.3). This leads to the term social innovation that at first appearance entails the same intentions as a technological innovation (Landabaso et al. 2013, p.7). Social innovation, however, further aims at responding to society’s needs and to build up new social relations which may not only strengthen the society as a whole but also every single member’s ability to contribute a valuable part (Landabaso et al., 2013). Societal innovation expands the dimension of social innovation by adding a long-term perspective. So, while it would be necessary to increase investments into innovation, Lehtola & Stähle (2014) argue that for the European context societal innovation should be interpreted as an expansion of the term social innovation to explain how a radical or incremental innovation would be established in society on the long run and represent a driver for societal change (Lehtola & Stähle, 2014). Often people put the term innovation on the same level with product development when they are talking about a forward bringing idea or an existing product with newly developed functions (Pehrson, 2015a). More specifically, product development refers to the launch of an enhanced product on an already existing market. This connects to the term “Product innovativeness” that Pullen et al. (2012, p.134) apply to describe in how far a newly developed product may be known within the developing firm and on the market the firm presently acts on. One may distinguish among different types of new products, namely “(…) new-to-the-world products, new product lines, additions to existing product lines, repositionings, improvements/revisions to existing products, and cost reductions (Booz, Allen & Hamilton, 1982 seen in Pullen et al. 2012, p.134).

An increasing amount of inventors are asking for research input on their idea. Research may not only be done on the technical aspects of one’s invention but also on market demand and on the possible impacts of a product on the environment and on the society. Political and legal barriers may be delineated in the same step in order for the inventor to get a complete picture of the potential of his idea. Frameworks provided by social sciences would gain more of importance when one seeks to understand the effects of the innovation on society (Wolf, 2002 seen in Lowe et al., 2008). But Lowe et al. (2008) argue that especially in the food sector perspectives from social sciences should be included much earlier in the innovation process by connecting the intention to commercialize with an investigation on consumer preferences and their budget limitations for a product (Lowe et al. 2008, p.231).
Also, Braun et al. (2000) and Ross (2006) (seen in Carolan, 2011) found out that in order for farmers to be successful on the local market and to develop new ideas, they would mostly require external support such as specific training measures and the possibility of sharing know-how with farmer colleagues. The Operational Groups intend to provide such services and support to Åre Bondgården and Oviken Ost.

1.3 Research questions
(1) What characteristics do both small scale producers share and how do they differ from each other?
(2) What role do networks play for their activities?
(3) How have they been dealing with challenges in the past?
(4) What risks and barriers may they encounter on their way to an innovation?
(5) How both small-scale dairy farmers may be supported by Operational Groups?

2. Objectives
The main objective of this study was to study how and with what skills the so-called Operational Groups supposed to be set up under the European Innovation Partnerships might be able to support the small-scale dairy farmers at Åre Bondgården and Oviken Ost in their innovation processes.

The specific objectives were to:
(1) get a picture of the respective logistics management processes and key stakeholders of the small-scale dairy farmers at Åre Bondgården and at Oviken Ost;
(2) identify what values the small-scale dairy farmers at Åre Bondgården and at Oviken Ost assign to their key stakeholders;
(3) identify what challenges Åre Bondgården and Oviken Ost respectively face on the Swedish dairy market;
(4) determine key competences that the aforementioned small-scale farmers are mostly in need of in order to support them in implementing innovative ideas;
(5) identify what skills and key areas are available in the form of Operational Groups and which ones are lacking;
(6) identify and assign Operational Groups including related areas of competence according to their respective needs.

3. Methods
3.1 Case studies
A case study as a research method carries several benefits to the researcher and has therefore been chosen to investigate and to provide answers to the previously defined research questions. A case may be defined as “a unit of human activity embedded in the real world; which can only be understood and studied in context; which exists in
the here and now; that merges in with its context so that precise boundaries are
difficult to draw” (Gillham 2010, p.1). For the present cases, a rather qualitative and
naturalistic approach of conducting case study research including participant
observation and collection of qualitative data has been applied. However, it may be
clarified that the degree to which observations and interviews have been used for data
collection on the respective farms varied due to the dissimilar individual farm setting
and business circumstances. The case studies were targeted towards learning more
about the producers’ respective elementary motivations influencing the way they
perceive their environment and the decisions they take. This was achieved by asking
open-ended questions, observing their settings but also by posing more specific
questions, partly derived from the observations. Thus, the participant observation was
targeted at getting a general picture of what can be seen on the surface and the
questions at gradually learning more about their present all-day processes (Gillham,
2010).

3.1.1 Site Selection
For the current study, Åre Bondgård and Oviken Ost were selected. The studied cases
are quite unalike from each other, but they have some central points in common. They
are both located in the Jämtland county, a sparsely populated area in the North-West of
Sweden, which is known for its particular natural and climatic conditions, where a large
number of small-scale producers span over the whole territory. As the region has a long
tradition and know-how in entrepreneurship you will find the highest concentration of
cooperatives in Sweden and expertise in small-scale farming here (Bonow & Rytkönen
2012). Except of Östersund the region has no other major city. The biggest source of
employment and target group for small-scale producers represent the guests visiting the
region every year in the high-season mainly for winter sports activities, frequenting
local restaurants and local hotels in Åre or Östersund (Jämtland Härjedalen Turism,
2014; Bonow & Rytkönen, 2012). Åre Bondgård and Oviken Ost are located about 90
kilometers from each other which means that Åre Bondgård is benefitting more than
Oviken Ost from tourism in Åre because it is located in its close surroundings.

Moreover, already in 2012 the region counted about thirty farm dairies mainly
producing butter, cheese and milk (Bonow & Rytkönen, 2012) indicating that the local
dairy market is rather saturated and that both producers have to find their ways in
promoting their raw milk produce to potential regional and over-regional consumers.
The two small-scale dairy producers have been struggling with authorities, for instance
with the Swedish National Food Agency (NFA) called Livsmedelsverket in Swedish, in
trying to act against the existing standards. Both Åre Bondgård and Oviken Ost have
equally been experiencing the European Union as a top-down institution suggesting
guidelines and support that mismatch their actual all-day activity and animals’ and
nature’s rhythms (Andersson, 2015; Åkermo, 2015).

3.2 Data collection

3.2.1 Interviews
Structured and unstructured types of interviews have been applied in order to collect
data on the two farms. As Gillham (2010) stated, it is especially effective using them in
smaller settings where few people are working with your topic of study and where your
contact person is easy to get hold of.
The research at Åre Bondgård involved a more unstructured type of interviewing, rather
“naturally occurring conversations” (Gillham 2010, p.63) and open-ended questions to
one of Åre Bondgård’s owners Jörgen Andersson. Some questions had been prepared before conducting the fieldwork on place. After the first conversations, however, these questions had been partly modified and based on the received information. Since the interviews were not recorded, this unstructured technique required taking notes as soon as possible after each conversation in order to get hold of the most important details (based on Gillham, 2010). The first target was to catch on what vision and ideology Åre Bondgård pursues and how the farm goes about taking risks. Then, the next step was to see the up-to-date structure of the farm and to get an understanding of how the dairy market presently looks like. Another point of interest was to learn more about how Åre Bondgård plans to run the farm in the future as well as what steps the respondent considers to be taken in order to build up a holistically managed dairy farm. In this context Åre Bondgård’s picture of their ideal supply chain has been discussed which was helpful in detecting the stages where they particularly wished to have support for and in figuring out how an eventual project might look like. Thus, the last conversations were about elaborating further on project ideas (see Appendix).

The research at Oviken Ost involved about one week of observations and a predetermined interview with co-owner Kristina Åkermo, providing the opportunity to ask prepared questions as well as any question arising from the observations during the stay on their farm. The 40 minutes long interview has been recorded on a mobile device so that it was possible to transcribe the dialogue and to capture relevant details for the stakeholder analysis and project suggestions. More specifically the interview’s aim was to find out more about the interviewee’s professional background and how her expertise may become useful in Oviken Ost’s daily processes. It gave as well an insight into the relation to their customers especially regarding customer feedback and suggestions, the design of their marketing and into their ways of approaching problems and implementing new ideas. Another point of interest consisted of their experiences with Swedish authorities and the European Union related to external support. Last but not least, it was about collecting ideas for projects that Oviken Ost has in mind and for which an Operational Group might be able to provide support and additional know-how for (see Appendix).

3.2.2 Observations

According to Gillham (2010, p.45), the observing researcher should follow three key rules namely "watching what people do; listening to what they say; sometimes asking them clarifying questions." For both of the cases, the participatory type of observation has been applied because the main intention was to get a picture of Åre Bondgård and Oviken Ost’s contexts and to learn more about their values and approaches (based on Gillham, 2010). The farm Åre Bondgård is at present being reorganized and in a transition phase from a conventional to a holistically managed farm. Therefore, the observations primarily concerned the planning processes and all the steps that presently need to be considered and realized in order to bring the new business on the way. During the data collection in Åre, there were several people focusing on aspects like such as the identification of criteria for the optimal soil quality and on how to fulfill these in the future as well as on the application process for future funding provided by the European Union for measures related to the enhancement of livestock quality following the concept of Holistic management. Moreover, the visit at Åre Bondgård as well at Oviken Ost included a small guided tour on the farm in order to get an impression of how their processes and structures as well as their surroundings look like up to date. Oviken Ost is a matured business where production and distribution processes are quite settled meaning that you will find production facilities, employees with their assigned
tasks, a clear marketing design and customer base. Moreover, it was possible to get a picture of how different skills may be combined and processes may be designed in order to achieve a product of high quality while respecting the animals’ needs and nature’s rhythms. Clarifying questions were asked during the predetermined interview with one of Oviken Ost’s co-owners. The cases are going to be described more deeply in the next chapter.

3.3 Data analysis

3.3.1 The Stakeholder Pentad Framework

**Description:** In Greek geometry, a Pentad is a multidimensional figure with five corners which in the present framework stand for five different stakeholders and which are related to the studied business. Due to long distances and rare direct personal contact stakeholder relationships become more and more demanding to manage and to maintain. The present framework attempts to look at stakeholder relationships as interactions driven by a “value adding” instead of a “value-added” standpoint (Sanford 2011, p.50f.).

![Stakeholder Pentad Framework](image)

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The framework (Fig.2) holds the assumption that a *Responsible Business* would ideally be depleting as little resources as possible and improving customers’ lives by its products and services. According to the chosen framework the first and central group of stakeholders represents the *Customers* including consumers, distributors and clients. In this context, the core task for a business is to develop an understanding of customers’ intentions before and in the moment of purchasing products. Then, the second group consists of the so-called *Co-creators* which are part of the service and product creation processes down from the raw material stage up to the consumer stage, and building a network together with the producer. The third stakeholder called *Earth* refers to infrastructure and ecosystems as living systems where a diversity of species has their home and delivers humans with valuable natural resources. *Community* is the key term for the social context a business is embedded in, be it the regional, national or international context. The people living in those communities determine whether the
quality and nature of the goods and services should be kept or changed in some way. This does not only relate to products directly but also to the degree of employment and cultural life. Last but not least, the model includes *Investors* and their financial and ethical intentions as important contributors and supporters to your business (Sanford, 2011).

**Application to the cases:** Based on past experiences and on their respective needs, the farmers assign particular values and show attitudes towards their key stakeholders. The *Stakeholder Pentad Framework* will serve as an analytical tool facilitating the process of identifying key stakeholders related to Åre Bondgård and Oviken Ost and values assigned to them. Secondly, those respective stakeholders will be described in the farmers’ eyes in the order of the numbers given above (Fig.2).

### 4. Results

#### 4.1 Åre Bondgård

The dairy farm Åre Bondgård is located about 10 kilometers from Åre and possesses 100 hectares of land and about 120 milking cows. In January 2015, Jörgen Andersson, Jonas Palm and Hedi Wiesner took over the ownership of Åre Bondgård, and the farm is currently in the process of reorganization. The conversion from an existing conventional farm into a *holistically managed* farm entails a lot of planning, especially because the future product is supposed to be raw milk. In 2012, there were a lot of controversies on the local level when co-owner Jörgen Andersson put up a vending machine in front of the local *ICA* store in Åre to distribute raw milk from his micro-dairy at Åre Bondgård. The authorities confiscated it arguing that his action would not be allowed. In the end they seemed to be wrong and in a court session he has been declared innocent. In order for the farm to become a holistically managed farm there still a number of issues that need to be addressed. These include the definition of criteria and the management of nutritious soils, the required machinery, the area to be grazed on by their cows and ways to reach consumers and engage them in buying and appreciating raw milk for their all-day consumption (Andersson, 2015). Figure 3 provides an overview on the existing logistics management processes at Åre Bondgård.

#### 4.1.1 Overview on logistics management processes

![Fig. 3: Overview on Åre Bondgård’s logistics management processes from the supplier to the customer stage including material flows (Raw milk) and financial and information flows, adapted from Christopher (2011)](image)

- **Suppliers**
  - Fodder
  - Equipment
  - Energy
  - Capital

- **Operations**
  - Feeding and milking the cows
  - Selling bulk of milk to *ARLA*

- **Distribution**
  - *ARLA* shipping the milk to pasteurization facilities and delivering it to retailers

- **Customers**
  - Buying pasteurized milk from the retailer for their all-day consumption

- **Financial flows and information flows**
Based on a model established by Christopher (2011) the figure above (Fig.3) shows Åre Bondgård’s main logistics management processes from the supplier to the customer stage including material flows (Raw milk) as well as financial and information flows. For their raw milk production Åre Bondgård procures fodder from an external supplier, milking equipment and tanks as well as energy mainly referring to water, electricity and heating. Their capital consists of their land, their animals as well as of their human and financial resources. The main operations involve feeding and milking their cows in order to be able to sell bulks of milk to ARLA. The large-scale dairy cooperative will ship the milk to pasteurization facilities and delivering it to retailers where the final customers will then have access to pasteurized milk for their all-day consumption. The financial flows mainly include the price that ARLA pays to Åre Bondgård for a bulk of milk they are delivering. At the moment information flows mostly come back in the form of volumes demanded by customers so that Åre Bondgård can plan their production accordingly.

4.1.2 Current key stakeholder relationships and values

The following paragraphs describe the respondent’s attitude and experiences regarding their key stakeholders (Fig.4). Since the Co-creators are the ones who are mainly involved in the creation of the product and related services, this group of stakeholders will be investigated with regard to their present and desirable behavior in the future. The following table (Table 1) includes all relevant key stakeholders split up according to the order given in the Stakeholder Pentad Framework (Fig.2) which will also be taken up in further steps of the key stakeholder analysis.

Table 1. Åre Bondgård’s current key stakeholders

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Applied to Åre Bondgård</th>
</tr>
</thead>
</table>
| 1. Consumers  | - Consumers: Tourists, Local population  
                   - Distributors: Retail industry (Grocery chains), the farmer himself  
                   - Clients: Foodservice sector (Restaurants, Hotels) |
| 2. Co-creators| - Authorities  
                   - Suppliers of fodder  
                   - People working on the farm and farm owners  
                   - Large-scale producers |
| 3. Earth      | - Animals  
                   - Local ecosystem |
| 4. Communities| - Local small-scale dairy producers  
                   - Local population (Jämtland region) as consumers and tax-paying community  
                   - Municipal and related bodies (e.g. schools) as a community |
| 5. Investors  | - Business person  
                   - Private person |

Consumers: Andersson (2015) argued that these days consumers would be caught in a trap of the industry’s vast offer of cheap products resulting in the fact that the industrial supply chains have a pushing-effect on the consumer and therefore on their consumption habits. He further reasoned that the overall acceptance of industrial produce might also arise from the fact that most people perceived the offered
alternatives of locally produced food or food certified as organic as not affordable and hence, as not eligible for their regular consumption. Also, in the eyes of the industry, consumers would not be understood as individuals with individual needs or preferences but instead as a big mass of people supposed to buy their standardized range of products. Regarding the aforementioned aspect, the respondent said that in his opinion nowadays most consumers gave away the responsibility for their own lives into large producers’ hands and only took it again on occasion e.g. when spending holidays somewhere where one gets to discover other than the regular products from the grocery shelves. Nevertheless, there would be plenty of possibilities for the consumer to take responsibility not only by going back over his consumption patterns but also by supporting others’ innovative ideas or by taking initiative to launch their own projects. Still, a lot of people would see themselves as victims of the industry, complaining but not really changing anything about this situation (Andersson, 2015).

**Distributors:** As retailers like ICA are having agreements with ARLA to sell their products in their grocery stores, Åre Bondgård’s milk is to find there as well but at present only in the pasteurized form (Andersson, 2015).

**Clients:** For Åre Bondgård tourists represent “the low hanging fruit” (Andersson 2015) that keeps on consuming conventionally treated milk and to a large part guarantees their economic viability. Andersson (2015) perceives a growing tendency of tourists looking for gourmet experiences instead of skiing or other outdoor activities which is why the restaurant and hotel infrastructure seems to be proportionally growing.

**Co-creators:** Authorities belong to one of Åre Bondgård’s key stakeholders in the sense that they are currently preventing the owners to lead their businesses as they actually would like to. Still, suppliers are providing the farm with industrially produced fodder additives that are given to the cows to make them produce higher amounts of milk than they would naturally do. The large-scale dairy cooperative ARLA is buying the bulk from Swedish dairy farmers to a regularly decreasing price which makes it more and more difficult for Åre Bondgård to cover their costs.

**Earth:** As the farm is still conventionally organized, Åre Bondgård’s milking cows need to stay inside the barn and are fed with a mixture of silage and supplements. On average they would only be living four to five years because the fodder makes them grow very fast and give high amounts of milk in a very short period of time. The calves are being fed with similar feeding. Åre Bondgård’s cows may be able to live up to ten years but due to the aforementioned external pressure they usually do not reach their natural age of about ten years anymore. The respondent recognizes the fact that they are valuable resources for the farmer but also living creatures that you would need to pay respect to. But we may only benefit from their resources with good conscience if we would “do our part of the agreement with the animals” (Andersson, 2015). During our conversations the respondent clearly pointed out that the local natural resources would not be available very long anymore if we as consumers and producers did not take the responsibility to use them in a different way than we do now. The mountains close to the farm would have been there for generations of people to be enjoyed but these would be heavily exploited and be transformed for and by tourists by preparing skiing slopes and hiking tracks as well as by building lifts as a means to bring people up to the mountain top. Sports shops, accommodation in the form of cabins as well as hotels or camping spots would represent further changes in the local infrastructure (Andersson, 2015).
Community: Most of the milk that is now produced by dairy farms like Åre Bondgård would be shipped to Southern Sweden to be treated in pasteurization facilities. Instead, another bulk of milk from Denmark would then be imported by the municipalities for the use in local feeding facilities. Therefore, a group of local small-scale dairy farmers joined together in groups via social media and sold their products via trucks. The mechanism is that the products can be ordered and paid online and the consumer would just have to pick it up. Municipalities and related bodies such as schools also represent a community with common interests. As the respondent explained, this particular community would hardly encourage producers to try out other than industrial production approaches. But they would also be dominating the way the younger generation at least in Åre municipality is granted access to knowledge about alternative ways of consumption. According to Andersson (2015), pupils and students would no longer have access to school kitchens because the local municipalities would have estimated costs for staff, operation and maintenance of facilities as too high. Thus, the pupils and teachers would not really be given the chance to exchange knowledge about alternative food choices and develop critical thinking about their food consumption habits. While the local population represents a part of the consumer community, Andersson (2015) suggested that latter shall be classified as ‘the tax-paying community’. As such, this community may expect to receive services by the authorities which encourage people in taking responsibility for a healthy and fulfilling life. The municipalities would represent the institutions that should deliver its contributors with these incentives (Andersson, 2015).

Investors: The respondent argues that the word local entails that there would be the lowest number of relations as possible before the final product reaches the costumer. This would not forcefully include that costumer and producer are situated geographically close to each other. The main point remains that people would be appreciating your idea and support one’s business by investing in it and by thereby contributing their share to your efforts. Ideally, one’s idea would be more widely spread by such a network of contributors to other parts of the country or even further. As Andersson (2015) recognizes himself there might come problems with this approach because people providing capital for a project might not really have the expertise to judge about potential effects to and by the market. Also, depending on the degree of expansion of one’s idea it may happen that the inventor does not manage to deliver shareholders anymore because you as producer overestimated your abilities and resources at hand. In order to keep on investing, the costumer would always expect something in return for his investment, more concretely the final product. Another barrier would consist in the society’s attitude towards investors because investors would often be put into the same category as speculators. One positive side aspect would be to prove this group of people wrong by showing them that it is possible to support something good and beneficial on the long run. The respondent mainly refers to his experiences collected during his previous project where he produced raw milk in a micro-dairy located at Åre Bondgård and launched a fundraising campaign in order to finance its operation. But there were problems with the production equipment and Åre Bondgård’s previous owner did not support this project. As it was not a success for nowadays co-owner Jörgen Andersson, he would like to emphasize that potential investors should not be afraid to keep on supporting him in the idea to deliver a healthy and nutritious product (Andersson, 2015).

Summary of analysis of current key stakeholders: Figure 4 summarizes briefly how far Åre Bondgård’s experiences with the operation of the micro-dairy project shaped their perception of key stakeholders. In Åre Bondgård’s eyes these seem to be
disrespectful towards the consumer and show little interest for consumers’ actual preferences or needs. On the other hand, the consumer would seem to be too convenient to look for alternatives to commercially produced food and to start taking responsibility. It comes into play that the dairy cooperative ARLA seems to dictate official standards regarding milk distribution to the Swedish NFA and consequently to the retail industry that would be following these trends.

\[\text{Fig. 4: Summary of Åre Bondgård’s perception of current desirable key stakeholders} \ \text{Consumer, Authorities, ARLA and the retailer ICA}\]

4.1.3 Desired key stakeholder relationships and values
The subsequent steps will be to explore desirable patterns of key stakeholder behavior and related values that Andersson (2015) as one of Åre Bondgård’s representatives projects on these groups of actors. It has been indicated beforehand that the co-creators represent the group of stakeholders that is most directly linked to the creation of the end product and the services that go with. According to Åre Bondgård’s value perception it would mean that key stakeholders misinterpret their role by acting based on values derived from their endeavor to increase their own incomes (Fig.6).

**Authorities:** Ideally, authorities would respond the small-scale dairy farmers’ requests of a more thoroughly design of legislations and of certification schemes which were supposed to apply to the dairy farmers’ actual processes on the ground and to respect the livestock’s needs and natural rhythms. In addition to this, the Swedish NFA would, as they suggested in autumn 2014, provide the legal basis for Åre Bondgård to officially sell 10 liters of raw milk per day (Radgivningsavdelningen Livsmedelsverket, 2014a).

**Large-scale industry:** Ideally, the industry would reconsider its present production patterns and the related pressure on local dairy farmers to produce and deliver ever higher volumes of milk to unfair price conditions as stated by Söderberg (2013); Sveriges Radio (2012) and LTO Nederland (2014).

**Suppliers of equipment:** For the moment Åre Bondgård’s owners are working on the question of required equipment so that at this stage the respondent was not able to make a definite statement on eventual future suppliers.

**People working on the farm and farm owners:** Åre Bondgård’s owners have their vision of a farm that sells raw milk from cows grazing on their own pastures in bag-in-
boxes of two liters as the final product to their customers. The concept of *Holistic management* entails that if one attempts to understand the ecosystem one needs to take of it and manage it accordingly. The farmer’s main task would be to determine a “weak link” (Butterfield et al. 2006, p.8), this is to say that the farmer would have to identify an area where he considers to require the most support for and put up an action plan for this area. Moreover, you would need to get other farmers involved in order to spread your idea and to gain in power against the industry (Andersson, 2015)

**Animals:** In the present case the previously described concept is shaping process design and the kind of life the cows on the farm may expect. In Åre Bondgård’s eyes this shall be done by reducing the number of cows to about 70 so that they would have more space when they are in the barn in winter. According to Åre Bondgård’s idea they would have the chance to graze outside in the summer on the 100 hectares of land available. Thus, no artificial fodder additives shall be given to the cows anymore because the fodder for the cows will be replaced by the grass they would be eating from. In winter, they would be fed with hay collected during the summer time. Last but not least, Åre Bondgård’s owner plan to find indicators for the effect of the soil quality on the raw milk as end product and on the health of the animals (Andersson, 2015).

**Retailers:** In the transition phase, Åre Bondgård would like to use grocery stores as a platform to promote the benefits of raw milk among a wide range of potential consumers with the objective that they would start reflecting on its benefits, trying it and later on consuming it on a regular basis (Andersson, 2015). According to their plans, the customer would be supposed to come to the farm and pick up the prepaid volume of raw milk. The consumer would get an impression of how the milk is produced and how the animals are taken care of. Also, the producer would get direct feedback on the product and the consumption experience by the personal contact with the consumer. The producer would save energy and costs otherwise caused by transport to other places, not least because the milk contains a high percentage of water (Andersson, 2015).

**Restaurants and hotels:** During the transition phase Åre Bondgård’s owners would start stimulating the restaurants’ interest in raw milk by advertising its benefits for the preparation of different dishes and for the wellbeing of their guests. Once Åre Bondgård would have succeeded to promote their raw milk and the chefs would actually use it for the preparation of their dishes or serve it with coffee, they wish to keep on maintaining the quality level of the milk high so that a long-term relationship between them and their customers would be created. The restaurants would be able to lift themselves up from their competitors while the small-scale dairy farmers would gain more consumers interested in their idea and curious to learn more about Åre Bondgård’s actual production design. In the respondent’s eyes consumers would ideally share among themselves their experience and collected knowledge by word-of-mouth advertising (Andersson, 2015).
**Consumers:** In Åre Bondgård’s view their ideal consumer would not only share his positive experiences but would also regularly come to the farm to pick up his preordered amount of milk. By giving direct feedback to them they would take an important role in shaping and refining the design of Åre Bondgård’s processes on a long-term basis. Ideally the tourists would as well as the local population build up long-term trust into the producers, be curious about their ways of production and enter into a dialogue with the producers. Although this part of the community is not living in the area it would start investing into their idea, and about two times per year it would come and pick the result of its investment on their farm (Andersson, 2015).

![Diagram](image)

*Fig.5: Summary of Åre Bondgård’s desirable behavior of the key stakeholder groups Consumer, Authorities, ARLA and the retailer ICA*

### 4.1.4 Summary of analysis regarding Åre Bondgård

The conditions that consumers have to put up with and the way these key stakeholders approach consumers do not appear satisfying for Andersson (2015) suggesting that in his eyes different actors in the Swedish dairy sector would need to review their selfish and profit-driven behavior. Major actors were supposed to show the way to a more responsible and morally correct way of running their businesses and decision-making processes (Fig.5). On the other hand, however, it seems that in whatsoever way they are treated, the consumer finds himself in the center of intentions (Fig.6).
4.1.5 Project suggestion regarding Åre Bondgård

Idea: The idea of Åre Bondgård is to place a raw milk filling station close to the farm, eventually at the highway E14 where a lot of people pass every day when going to and coming from Åre. After having thrown money into the machine the station would be providing the customer with small volumes of raw milk, for example with 0.2 liters or 0.5 liters.

Purpose: The main intention would be to promote raw milk as a high quality product to both the local community and tourists while in order to stay economically viable Åre Bondgård would have to continue delivering bulks of milk to ARLA.

Inspiration for Åre Bondgård: The milk filling station would allow them to offer nutritious and healthy raw milk directly from the farm. Instead of people choosing the conventional alternative its installation would engage them to drink raw milk on a regular basis. A little amount of resources for both production and distribution would be required for Åre Bondgård because raw milk production requires only little to no treatment and the filling station would be located close to the farm. Additionally to this, the European Union determines the distribution as legal (European Union, 2007) and there exist similar projects, for example in Germany where you already have a network of dairy farms with raw milk filling stations on place that may look as follows from the outside (Fig.7) and from the inside (Fig.8).
Most of these dairy farmers invested into this kind of milk vending machines (Fig.7; Fig.8) and housing for the raw milk filling station (Fig.9). They mostly argue that in former times people used to come to the farm and pick up raw milk directly from the cows right after they gave milk. But nowadays a number of hygiene restrictions regarding raw milk distribution to private persons would practically prohibit dairy farmers to grant access to the cows’ barns to anyone else than the people working on
the farm. There is a small-scale dairy farm in the surroundings of Cologne that possesses about 70 milking cows of which each of them gives about 30 liters of milk a day resulting in 2100 liters of milk per day in total. It shows that even dairy farms with a small number of cows and volumes of milk may choose to distribute their milk the suggested way (Kölner Stadt-Anzeiger, 2014).

A milk filling station usually has two tanks of 150 liters volume and allows the distribution of small amounts of raw milk which can be filled with fresh raw milk every day. Consumers purchase milk to the amount desired and in accordance to cost they are ready to pay (Kölner Stadt-Anzeiger, 2014).

**Benefits:** The previously described example has been chosen to show that such a way of distribution may bring some flexibility for Åre Bondgård because they would still have the time to keep on elaborating on open questions. The filling station would only provide small amounts of milk but this amount may increase in case the Swedish NFA would include the suggested change of 70 liters of raw milk production and distribution per week into their legislations (Livsmedelsverket, 2014a; Livsmedelsverket 2014b; Livsmedelsverket, 2014c). Additionally to this, Åre Bondgård could keep on offering the raw milk in glass bottles that he has been using already during his micro-dairy project (Andersson, 2015).

**Drawbacks:** There is no direct face-to-face contact with the consumer at the moment of when the raw milk is withdrawn from the machine. Furthermore, it needs to be filled up daily in order to guarantee freshness and high-quality to consumers. Despite of this, people may still choose to go to the store because they consider it to be the more convenient option in terms of costs and distance.

**Legal preconditions:** Sales directly from the farm by the producer to the consumer are called “farm gate sales” (Government of New Zealand 2011, p.1). In the European Union Council Regulation No. 1234/2007 raw milk is considered as “drinking milk” and described as “milk which has not been heated above 40°C or subjected to treated having similar effects” (European Union 2007, p.107). Related to its distribution the regulation prescribes that raw milk should either be sold directly to the consumer or after having passed school-, hospital or company feeding facilities as well as restaurants (European Union, 2007). The present version of the Swedish food hygiene
policy foresees that a dairy farmer may only give away raw milk in quite small volumes to a small amount of consumers, and only directly from the farmers’ facilities. In contrast, milk may only be launched on the market when it had been heated up to a level where existing milk bacteria are killed and did not represent a health risk for consumers anymore (Livsmedelsverket, 2015; Livsmedelsverket, 2014b). In 2013, the Swedish NFA suggested to ban farm gate sales with raw milk because many cases of Echerichia coli infections had been detected in Sweden. Hence, raw milk had been judged as a health risk for consumers. Also it had been argued that regular official milk controls by the authorities in the form of random samples would cause too many administrative costs for them and particularly in relation to the returns of raw milk sold. But the original suggestion had been taken back because of a high number of protests by the Swedish population that claimed that if raw milk would be banned also traditional food would disappear (Radgivningsavdelningen Livsmedelsverket 2014b). Many consumers would like to decide themselves whether or not they accept the risks that go with the consumption of raw milk. Then, experts within the control authorities and experts from the dairy sector came together in to figure out alternative ways of handling the issue. They came to the conclusion that it shall be allowed for the producer to sell or give away 70 liters of raw milk per week to consumers coming directly to the farm. Before he is starting his business, the producer shall register at the responsible County Administrative Board in order to benefit from and be prioritized for regular hygiene controls. The producer shall also report the amount of milk that he is producing and give all the relevant information about the handling of raw milk to the consumer. For instance raw milk should be consumed shortly after the purchase or used in hot dishes because it may contain dangerous bacteria and not be drinkable for health risk groups. In December 2014, the Swedish NFA handed in the newly developed suggestion to the European Commission for notification procedures but they have not received any reply yet (Radgivningsavdelningen Livsmedelsverket, 2014b; Radgivningsavdelningen Livsmedelsverket, 2014a).

**Required disciplines and tasks:** Based on a model developed by Social+ (n.d.), the following figures (Fig.10, Fig.11, Fig.12 and Fig.13) are illustrating what disciplines and what roles they may take to realize the various steps of the suggested project from the idea phase, to the invention phase, followed by the scaling-up phase resulting in the innovation phase. As will be discussed later in the Discussion section, the milk filling station may not represent a technical innovation in itself but it may turn out as a societal innovation by people frequenting it and consuming raw milk as well as on the long run thinking more generally about their consumption patterns. In the idea phase Åre Bondgård may take its creativity from its ideology and its openness that involves encouraging people to try alternatives. There are many case examples that show that the Holistic Management concept can be very well linked with the idea of the milk filling station (Landesschau Baden-Württemberg, 2014; Landesschau Baden-Württemberg, 2011; Anders, 2013) so that it might become important to follow its rules during this phase. Academic research may be of special interest because it allows them to learn more about recently discussed aspects within their field while case studies such as the present one might deliver them with arguments discussing how realistic it may be for the milk filling station to result in an innovation. Passing from the idea to the invention phase it might remain one of most relevant steps to get an overview about their own financial and physical preconditions and to figure out for what areas in particular they may need to find supporters and build up a new or extend their existing network of investors for. In the next step Åre Bondgård may have to rely on external knowledge support in order get a more complete picture of how the invention may look.
like. In the scaling-up phase, a person with organizational skills, expertise in economics and in marketing may be consulted in order to advertise the milk filling station, to develop a detailed budget plan and distribute tasks among people working on the farm. Moreover, they would need to determine suppliers for the equipment and agree upon regular hygiene controls with the authorities. Once the invention would have proven successfully, Åre Bondgård’s owners would have to keep an eye on the milk quality, on their budget and on the relationship to their customers.

**Fig. 10:** Project suggestion for Åre Bondgård: Potential process of idea phase including the most important skills and their degree of importance during this first phase of social innovation, adapted and translated from (Social+, n.d.)
**Invention phase**

- Getting a rough picture on required budget for further development of milk filling station and its installation
- Holistic management
- Farmer's experiences
- Market research
- Engineering
- Nutritional sciences
- Producers of equipment
- Legal preconditions
- Economics
- Knowledge
- Network
- Approach
- Building network of investors and supporters
- Creating public opinion and awareness about raw milk and its benefits
- Shifting the conventional farm business to a holistically managed one
- Developing the milk filling station design, its functions and necessary equipment

*Fig. 11:* Project suggestion for Åre Bondgård: Potential process of invention phase including the most important skills and their degree of importance during this second phase of social innovation, adapted and translated from (Social+, n.d.)

**Scaling-up phase**

- Finding suppliers for equipment
- Regular control of milk quality and hygiene by authorities
- Distributing tasks among staff working at the farm
- Developing a detailed budget plan including all relevant costs (e.g. staff, equipment, maintenance) before and during the operation of the milk filling station
- Economics
- Network
- Organization
- Marketing
- Expanding network of investors and supporters
- Promoting installation of milk filling station and its benefits among potential customers

*Fig. 12:* Project suggestion for Åre Bondgård: Potential process of scaling-up phase including the most important skills and their degree of importance during this third phase of social innovation, adapted and translated from (Social+, n.d.)
Innovation phase

- Refining the organization of tasks within among the staff working at the farm in order to guarantee a high quality and hygiene level
- Keeping an eye on budget plan during the operation of the milk filling station
- Giving a result in return network of investors and supporters
- Promoting milk filling station, raw milk consumption and its benefits among potential customers
- Taking care of relationship to steady customers and binding it to you on the long-run

**Potential actors:** The following table (Table 2) includes an attempt to assign actors to these various phases. In the idea phase the present case study may serve as a starting point and a motivation for Åre Bondgård to contact the Swedish Board of Agriculture as their first contact point in case they decide to apply for funding in the frame of the EIP-AGRI. Authorities like the European Union, the Swedish NFA and Växa Sverige become of special importance in the idea and invention phase where Åre Bondgård would have to figure out what knowledge, aspects and legal preconditions they should take into account. Åre municipality points to the strategic role of E14 for the area around Södra Årefjällen and Undersåker where it might be particularly profitable to put in place a new business idea (Åre kommun, 2014). As in the invention phase the design of the milk filling station and necessary equipment would have been determined with the help of Växa Sverige it might be one of the next steps during the scaling-up phase to put deeper thoughts into their budget plan and into the distribution of tasks among the staff working on the farm. Also, they would need to cooperate with the Swedish NFA in order to find an agreement on regular milk quality and hygiene controls on place. Meanwhile, the Federation of Swedish farmers, a Swedish NGO, would give them a hand in creating public opinion about the milk filling station, raw milk consumption and its benefits. Eventually, a marketing expert may have to be consulted when seeking to establish an effective marketing strategy for the maintenance of a sustainable relationship between Åre Bondgård and its customers. In the invention phase investors and supporters would get high-quality and raw milk in return for the risk they were taking during the invention phase.
Table 2. Potential actors for the project suggestion for Åre Bondgård

<table>
<thead>
<tr>
<th>Area of origin</th>
<th>Actor</th>
<th>Idea phase</th>
<th>Role during the project = Invention to Innovation phase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authorities</strong></td>
<td>European Union</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Swedish National Food Agency (NFA)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Swedish Board of Agriculture</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Local municipality</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>Research and Advisory services</strong></td>
<td>Swedish University of Agricultural Sciences (SLU)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Växa Sverige</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>Agriculture NGO</strong></td>
<td>Åre Bondgård</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>The Federation of Swedish Farmers (LRF, Section Dairy)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Business</strong></td>
<td>Marketing expert</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Financial adviser</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
4.2 Oviken Ost

Oviken Ost is located about 100 km from Åre and 50 kilometers from Östersund, the most central city of Jämtland. Since 2002, the family farm with 90 acres of fields and 2000 hectares of forest is run by the married couple Kristina and Robert Åkermo. With them, there are 3 more employees working within the dairy farm both directly and indirectly connected to the production of raw milk cheese. The sheep milk is provided by sheep on their farm and the cow milk is provided from a dairy farm nearby. The co-owner Kristina Åkermo is part of the network for artisanal small-scale producers called Eldrimner which is located close to Östersund and within which she supports other local small-scale producers with her expertise and know-how in veterinary science and in cheese-making (Oviken Ost 2015). Her know-how also became particularly of meaning when they started their business and they decided to have their own breeding of sheep. Figure 13 provides an overview on the existing logistics management processes at Oviken Ost.

4.2.1 Overview on logistics management processes

Based on a model established by Christopher (2011) the figure above (Fig.14) shows Oviken Ost’s main logistics management processes from the supplier to the customer stage including material flows (Raw milk cheese and other dairy products) as well as Oviken Ost’s financial and information flows. The cow milk is regularly being picked from the nearby located farm Bölässen Mjölk. Their fields provide the sheep’s fodder consisting of Oviken Ost’s own forage in the summer and hay in the winter (Åkermo, 2015). As they possess their own forest close by, the heat and hot water supply comes in the form of a wood chip boiler using the wood originating from this forest (Oviken Ost, 2015). The raw sheep and cow milk is used for the production of cheese in differing quantities or even as mix depending on what cheese or other dairy product

![Fig. 14: Overview on Oviken Ost’s logistics management processes from the supplier to the customer stage including material flows and financial and information flows, adapted from Christopher (2011)]
they are preparing. Oviken Ost’s production facilities are located close to the sheep milking facilities so that the milk may directly be pumped there. The cow milk is pumped from a tank outside into the tanks in the dairy. Depending on the type of cheese, they are either resting outside for a while or being stored to start maturing in the cheese caves on spouse wood bars equipped with a sign stating the date of production. Their products are mostly distributed by wholesalers in Denmark and Sweden but also via their own farm shop, small local shops and Oviken Ost’s own online shop. Only in case customers are particularly asking for it, the cheeses are delivered to regional ICA stores and packed accordingly. The wholesalers are organizing meetings among chefs and producers in order to create a forum for both parties to discuss about new ideas, potential product improvements or feedback from the guests. Through their website and their Facebook page one is able to find related information about the farm’s origins, the cheese production, their approaches, press releases and online shop with their products but also the opportunity to share comments and ideas on their products (Oviken Ost, 2015). Financial flows mainly consist of their income and occasional adviser activities within the Eldrimner network.

4.2.2 Key stakeholder relationships and values

Table 3 shows Oviken Ost’s key stakeholders split up into different categories based on the Stakeholder Pentad Framework (Fig.2). Thereafter, one will get an insight into their roles and tasks as well as into how they appear to and interact with Oviken Ost. The analysis will shortly be summarized in the end of this chapter (Fig.15).

Table 3. Oviken Ost’s key stakeholders

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Applied to Oviken Ost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Costumers</td>
<td>- Consumers: Mostly guests in restaurants in-and outside the Jämtland region (e.g. in Stockholm), Local population, Tourists&lt;br&gt;- Distributors: Wholesalers in Denmark and Sweden, Foodservice sector: Restaurants, Catering services mainly in the Stockholm region, Retail industry (Grocery chains)&lt;br&gt;- Clients: Restaurants, Catering services</td>
</tr>
<tr>
<td>2. Co-creators</td>
<td>- Agricultural engineer&lt;br&gt;- Veterinarian&lt;br&gt;- Expert in Marketing&lt;br&gt;- Expert in cheese production&lt;br&gt;- Foodservice industry&lt;br&gt;- Other producers</td>
</tr>
<tr>
<td>3. Earth</td>
<td>- Animals&lt;br&gt;- Local ecosystem: Land and Soil, Forests, Mountains, Different kind of species inherent to the surrounding area</td>
</tr>
<tr>
<td>4. Communities</td>
<td>- Local small-scale producers: ‘Eldrimner’ network&lt;br&gt;- Foodservice and -processing sector: Service personnel, chefs or other people involved and related to local hotels and restaurants&lt;br&gt;- Municipal and related bodies as a community</td>
</tr>
</tbody>
</table>
5. Investors

- No explicit information about this available

Customers: According to the co-owner Kristina Åkermo, there is at the moment too little knowledge among consumers about how many and what kind of producers exist within Jämtland region. As people in the local population would start consuming Oviken Ost’s cheese, they would ideally be recognizing that they are of high quality, different in taste and texture than industrial cheese and thus worth the comparably high price. For Oviken Ost transparency, reliability, flexibility, curiosity and mutual respect of each other’s work is considered as the most important values in order to keep the long-term relationship with wholesalers and the restaurants a fruitful and benefitting one for all actors involved. As Åkermo (2015) stated, the main reason why they do not focus on the cooperation with grocery stores is that otherwise there would be too much costs, manual work, time and energy involved for them to prepare the ordered cheese that would have be cut in separate pieces. Oviken Ost’s clients can mostly be found in the foodservice sector, mainly restaurants and catering services (Oviken Ost, 2015). These represent an important knowledge source for Oviken Ost since the regular meetings deliver practical insights into respective challenges and needs as well as into consumers’ tastes and preferences. Co-farm manager Kristina Åkermo expressed that diversity of taste and authenticity of products would be increasingly demanded by chefs they are working with which would show to other producers that they were supposed to reconsider their ways of production (Åkermo, 2015).

Co-creators: Originally, co-owner Robert Åkermo is an agricultural engineer and interested in agricultural processes and related technologies. He is the strategic planner at Oviken Ost who keeps an eye on the budget and volumes produced and verifies whether or not a new idea, for example a new production technique or the restructuration of the production facilities is economically feasible for them or not. Co-owner Kristina Åkermo can verify and control the fodder mix for the sheep by herself and directly on place. Doing this, she can evaluate what impact it has on the texture of the raw milk and the taste of the end product. As has been mentioned beforehand, external support represents an essential component for their activities. Especially at the beginning Bodil Cornell, the head of the local network for small-scale producers Eldrimner has been supporting Oviken Ost to build up their image with the design of their logo and of their website as well as of with the product names on the packaging signs. Their objective was that up from the first impression down to the consumption experience consumers should recognize what distinguishes Oviken Ost from other producers. Their internet presence also provides people the opportunity to give feedback on the products. Otherwise, reportages on TV and chefs using them in their kitchens and talking about these to their guests, represent other ways of receiving feedback and doing marketing (Åkermo, 2015).

Earth: In the winter the number of ewes, varying between 300 and 500 depending on the season, find themselves in the well-spaced barn and in the summer on Oviken Ost’s mountain pastures where they have space to move freely. Also, the grass that they have been grazing on and that serves as their fodder in the summer season later on has an influence on the taste of Oviken Ost’s raw milk cheese. The farm’s heat and energy supply is assured by raw material from their own forest (Oviken Ost, 2015).

Community: The co-owner Kristina Åkermo elaborated that her work within the Eldrimner network might not only provide the opportunity to spread knowledge but also to stand up as one community against large-scale production’s methods and
approaches. Other producers would not be seen as competitors but as partners sharing the same professional interests and goals. As the chefs and Oviken Ost depend on each other’s effort and know-how, both sides are interested in keeping their standards high but also in maintaining a long-term relationship with respect and the awareness of respective circumstances and resource limitations. Oviken Ost only has a few employees who all know each other personally. Overall, one could observe that communication was simple and information had only short ways to pass. This mainly related to feedback by employees. More specifically, plans for new methods or any kind of reorganization of processes within the dairy were discussed together and decided upon accordingly (Åkermo, 2015).

Investors: No specific information has been given related to investors to this business.

4.2.3 Summary of analysis regarding Oviken Ost
In their view, small-scale producers need to have some sense for creativity, flexibility, curiosity, openness, patience, assertiveness but also they need to stay realistic, pragmatic and independent in the way they are approaching challenges or new steps. The co-owner Kristina Åkermo considers skilled people within Oviken Ost but also photographers and graphic designers they cooperate with, as central resources for the success of their business. Feedback and suggestions given by wholesalers or by the restaurant chefs are in most cases involved into their planning and their dairy production.

4.2.4 Project suggestion regarding Oviken Ost
Idea: Oviken Ost may start distributing skim-milk as an energy drink that remains after the production of butter and has until presently been given back to the sheep as a protein complement to their feeding.

Purpose: While they could add a new product to their repertoire without having to significantly reorganize their production facilities, they would eventually attract new customers by the advertisement of the new product and create additional financial value.
**Inspiration for Oviken Ost:** In the common understanding “energy drinks are non-alcoholic beverages that contain caffeine, vitamins, (…). They are typically marketed as boosting energy and increasing physical and mental performance” (World Health Organization, 2014). A Spanish study revealed, however, that their consumption may be dangerous for your health and your sleeping rhythm in case you drink it before doing exercises (Sgobba, 2014). In fact “(…) the combination of fluid loss from sweating and the diuretic quality of the caffeine can leave someone severely dehydrated” (Mantak et al., 2015). Further negative health effects may include strong headaches, insomnia or chest pain. Popular examples of energy drinks on the market represent brands such as ‘Red Bull’ or ‘Monster’ (caffeine informer, 2015a; caffeine informer, 2015b).

Due to a large percentage of undernourished people in developing countries many of these have mostly been importing skim milk powder from Europe in order to cover their populations’ additional need of proteins. In Europe some farmers use skim milk powder to complement the feeding for their livestock (Food and Agriculture Organization of the United Nations, 1967; Lucas-Clements, 1981). Its demand seems to be continuously rising so much that in 2014 the European Union’s exports of skim milk to third world countries has been on a record level (Elite Magazin für Milcherzeuger, 2015).

“Looking at the main products made from milk in 2011, we can see that the production of cheese required the highest amount of milk. 67 million tonnes of milk (whole milk, skimmed milk and buttermilk) were used to produce 9 million tonnes of cheese” (Marquer, 2013). Thus, skim milk only seems to be used for further transformation to other products. In fact, together with butter milk only 2,1 million tonnes end up to be produced as such (European Commission, 2015). So, one may recognize that in the European Union the consumption of the fluid form of skim milk is relatively low compared to other types of milk. Oviken Ost may open a new market on the local, the national and even on the European level, especially among tourists doing different kinds of sport during their stay in Jämtland by distributing fluid skim milk (Jämtland Häradalen Turism, 2014). As a positive side effect they could create value with a different use of existing raw material and reduce the price on their butter (Åkermo, 2015).

**Benefits:** “Skim milk has the obvious benefits of being kind to your waistline and not filling your body with fat or cholesterol. (…) In fact, some nutrients are actually increased during the fat removal process, such as protein, potassium and calcium” (Fit Day, 2012). A study conducted in Canada has also shown that the regular consumption of skim milk may help to build up muscles (Preuße n.d.). Besides, it may be a good option “for those who suffer irritable bowel syndrome, since fat-rich foods are thought to aggravate the condition” (Epstein, n.d.). As Oviken Ost has been practically already producing skim milk but as a by-product, its introduction to the repertoire would not require many additional human resources except for the refinement of its taste. This might be favorable to do because due to the low fat content of 0 to 0,5 percent it may not taste as intense as milk with a higher fat content (The Dairy Council, 2015; Massholder & Hack, 2015). In fact in a milk separator the high amount of about 4 percent milk fat in the raw milk is separated from latter. The result is low-fat milk, also called plasma, with a fat content of 0,1 to 0,3 percent which is given as a drink to animals. For human consumption fat is added again so that the fat content reaches 0,5 percent (Massholder & Hack, 2015).

**Drawbacks:** “The lower level of fat in skimmed milk reduces its calorie (energy) content. For this reason it is not recommended for children under the age of 5 years as they need the extra energy for growth” (The Dairy Council, 2015). Besides, according
to a study that has been conducted in 2007 by the University of Hawaii the consumption of skim milk may entail a higher risk than other kinds of milk to fall sick with prostate cancer (Reuters, 2008).

**Legal preconditions:** While one is able to find data on skim milk production it seems at present quite difficult to find European Union regulations on the fluid form of skim milk. This is due to the production volumes but also due to the rising demand in skim milk powder by developing countries where the European Union is exporting it to (Elite Magazin für Milcherzeuger, 2015). One is able to find regulations such as the following ones but these are mainly providing rules for trade with skim milk powder, for example related to intervention storage or prices:

- **Commission Regulation (EU) No 569/2010 of 29 June 2010 derogating from Regulation (EU) No 1272/2009 as regards sales by tender of butter and skimmed milk powder** (European Commission, 2010a)

**Required disciplines and tasks:** As in the previous case based on a social innovation model established by Social+ (n.d.) the following figures (Fig.16, Fig.17, Fig.18 and Fig.19) are showing what disciplines and skills it may require to deal with necessary steps within the suggested project from the idea phase, to the invention phase, followed by the scaling phase resulting in the innovation phase. The promotion of skim milk as energy drink may partly represent a technical innovation but it may turn out as a social innovation by people demanding for it, creating a short-term trend that will prove to sustain on the long-run. Certainly, entrepreneurial thinking and a risk-taking attitude might be one of the most important competences for Oviken Ost in order to create a niche product. The farm owners Kristina and Robert Åkermo might certainly also take inspiration from previous experiences and from expertise in their original disciplines. The following steps may consist of pinning down their approach to the newly posed challenge and defining what knowledge may be necessary in order for the initial suggestion to become an invention. In the scaling-up phase a person with organizational skills, expertise in economics and marketing may become more of relevance because they need to inform their customers about the new product, they need to temporarily reorganize their production and develop a detailed budget plan listing all relevant costs. At the start of the innovation phase the first customers would have probably already provided some feedback on the energy drink which would allow Oviken Ost to further refine its taste and its packaging. Thanks to growing customer demand they would definitely have to restructure their production facilities, decide to offer their energy drink in their farm store and deliver it to their customers which may involve further but small investments. The present study intends to investigate how this model may be applied to the promotion of skim milk as an energy drink and what actors may become indispensable in order to achieve social innovation in the Swedish sports community.
**Fig. 16:** Project suggestion for Oviken Ost: Potential process of idea phase including the most important skills and their degree of importance during this first phase of social innovation, adapted and inspired from (Social+, n.d.)

**Fig. 17:** Project suggestion for Oviken Ost: Potential process of invention phase including the most important skills and their degree of importance during this second phase of social innovation, adapted and translated from (Social+, n.d.)
Potential actors: The following table (Table 4) includes an attempt to assign actors to the various foreshown phases. In the idea phase the present case study may serve as a starting point and a motivation for Oviken Ost to contact the Swedish Board of Agriculture in case they would like to apply for funding in the frame of the EIP-AGRI. Academic research might of special interest for the reason of Oviken Ost receiving insights into how realistic it may be for the consumption of skim milk as an energy
drink to result in a social innovation. The Swedish Board of Agriculture would especially be present throughout the idea and part of the invention phase. Further authorities like the European Union and the Swedish NFA would become of special importance in the idea and invention phase when Oviken Ost would have to figure out what knowledge, aspects and legal preconditions there are to be taken into account. Afterwards, during the invention phase it would become one of the most relevant steps for them to get an overview of their own financial and physical preconditions and build up a network of investors. Being part of the Eldrimner network co-owner Kristina Åkermo may already have a number of helpful contacts especially Bodil Cornell who in the invention phase might provide support for the packaging design and product promotion among current and potential customers. Meanwhile Växa Sverige would help them in setting objectives, for example related to product refinement and related to the amount of skim milk to be distributed. In Oviken Ost’s farm store the local population would get the chance to taste the new energy drink and to give direct feedback to its producers. The Swedish NFA would eventually send a nutritional scientist who would be verifying the milk nutrient content and its tolerance for human consumption. They might as well be sending a veterinarian to give advice on an alternative feeding additive for the sheep. After a while one-time customers such as the tourists would turn into steady customers, and may order the new product online. In the innovation phase investors and supporters would get a high-quality and nutritious energy drink in return for the risk they were taking during the invention phase.

Table 4. Potential actors for the project suggestion for Oviken Ost

<table>
<thead>
<tr>
<th>Area of origin</th>
<th>Actor</th>
<th>Idea phase</th>
<th>Role during the project = Invention to Innovation phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorities</td>
<td>European Union</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Swedish National Food Agency</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Swedish Board of Agriculture</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Research/Advisory services</td>
<td>Swedish University of Agricultural Sciences</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Växa Sverige</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Oviken Ost</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Business</td>
<td>Marketing expert</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>
4.3 Operational Groups

4.3.1 Overall framework

The main actors within the EIP and within the Operational Groups consist of practitioners from the agri-business, non-governmental organizations, advisors, researchers and farmers. These teams are founded around specific innovation projects where the participants are able to share their know-how and expertise with the objective to find innovative solutions to specific questions and to identify new opportunities in predetermined areas. In the Swedish context there is a budget of 440 million Swedish crowns available that has been agreed upon by the Swedish Board of Agriculture after consultation with a selection committee. This sum is distributed to different focus sections that are determined in the Rural Development Program valid for the period between 2015 and 2020 (Pehrson, 2015a). Depending on the respective challenge to be tackled, an Operational Group consists of at least two different disciplinary representatives (European Commission, 2013b; European Commission, 2014a). The European Rural Development Program and European Union research policy Horizon 2020 lay down the setting-up process for the Operational Groups in the form of funding, investments and knowledge transfer or advisory services. Further important steps in the creation process of such a group comprise networking activities in the form of focus groups that consist of a number of actors from various countries and areas of expertise such as farmers, researchers, advisors or other stakeholders, who discuss about a chosen topic in order to produce a summary of the most important issues, challenges and barriers regarding the topic assigned to their group. These results may be of interest for Operational Groups taking them as ideas for one of their projects (European Commission, 2014b). In this context, the role of a so-called Innovation Support Service as part of a national authority consists of guiding the farmer in his idea, of suggesting relevant disciplines and stakeholders for an Operational Group supposed to work with his project. It may also choose to involve insightful stakeholders so called Innovation brokers helping to figure out or to refine promising innovative ideas and in case, providing expertise for further steps (EIP-AGRI Service Point, 2014d; EIP-AGRI Service Point, 2014a, p.3; European Commission, 2014a; Pehrson, 2014).

4.3.2 Operational Groups in the Swedish context

In Sweden there will be one such Innovation Support Service within the Swedish Board of Agriculture built up of 6 to 7 people who are selected after an internal application process according to their know-how and expertise (Pehrson, 2015a). Moreover, the aforementioned guidelines (see for example European Commission, 2014a) emphasize the fact that because of their skills and practical experiences in entrepreneurship practitioners should be seen as a central resource that needs to be involved in attempting to figure out pathways and new solutions. As is the case for EIPs, this approach intends to guarantee and produce solutions that will be of use for the ones they are designed for and will attach them early on to the innovation project. An Operational Group may provide support for a period of up to 3 years (European Commission, 2014a; Pehrson, 2015b). Before this group is able to start working and getting sufficient funding and relevant disciplines and corresponding actors on board for a specific project, it needs to go through different steps within the application process (European Commission, 2014a). Funding is provided for the set-up of an Operational Group and its actual operation. Hence, a rough description of the project, its relevance for practice and a budget plan of the project shall be the first documents to be handed in. These first steps are merely supposed to involve few sums of money. As the second step involves higher sums of money, a more detailed description of the project, its work plan and given
agreements between participants of the group are required. It should be noted that one of the actors within the Operational Group may be defined as the leader and the one dealing with organizational and administrational tasks, for example when it comes to applications for payments. Project applications can be sent in anytime throughout the year and according to specific selection criteria they are evaluated about three times during the year by a so-called Advisory Selection Committee composed of five experts from different disciplines (European Commission, 2014a; Pehrson, 2014; Pehrson, 2015a). The output of the focus group’s workshops will be serving as an important input for the Innovation Support Service (EIP-AGRI Service Point, 2014b). This service has not been built up yet but the Swedish Board of Agriculture is taking care of this process. The plan for these is now to have 6 persons who each of them will be supposed to work 20 percent of fulltime. Farmers and producers will be able to apply up from September 2015 (Pehrson, 2015a; Pehrson, 2015b).

5. Discussion

5.1 Application of the Stakeholder Pentad Framework

One shall be reminded of the fact that this framework has been designed for rather large scale businesses where for instance Co-creators’ experience a much more complex communication infrastructure than in small-scale businesses where information flows usually do not have to pass through as much horizontal or vertical organizational channels. Nevertheless, the model can be considered as a relevant tool of analysis for the two small-scale dairy producers under study because formally speaking you will find the same type of stakeholders, only in a smaller scale. Thus, the criterion of multi-dimensionality appears to be equally fulfilled at both business scales. On one hand, large-scale businesses entail multidimensionality in terms of the amount of stakeholders, complexity of organizational structures and related processes. On the other hand, small-scale businesses bring about multidimensionality in terms of their relation to their key stakeholders, thoughts put into the design of different steps and their system as a whole. Nonetheless it was challenging to use the framework for key stakeholder analysis, not least because the intention was to understand Åre Bondgårds’ and Oviken Ost’s perceptions and their actual situation.

5.1.1 Analysis of Åre Bondgårds’s key stakeholders

Customers: In the respondent’s eyes the industry would have been creating the expectation that you would even be able to buy vegetables and fruits outside of their natural growing season. As large producers would usually appear as one big impersonal body, the consumer would not really know who to turn and to talk to in case of a complaint or other kind of feedback. Consumer engagement would be a sign to large producers with complex production chains to put a damper on the ongoing process of detachment between the consumer and the origin of his food. Another aspect that comes into play for Åre Bondgårds’ owners is that compared to its surroundings, Åre sticks out because of its infrastructure and its rather pricy hotels, restaurants and shops. These are mostly designed for wealthy guests willing to spend a lot of money on high-quality products that they exceptionally consume since they may only rarely be found in regular grocery shelves at their home location. This kind of demand might stand in conflict with the local community’s demand for all-day consumption products. Furthermore, both retailer and large-scale producer sides seem to be benefitting from their contracts because consumers would keep on frequenting their stores and purchasing the offered goods. Feedback on the purchased products would be given
through customer cards in the store where they are recorded and later on serve as statistical information for retailers to customize the range of goods offered in their stores. Hence, one may argue that the consumer does not really have any direct interaction with the producers and feedback may only be used for the retailers’ commercial purposes.

**Co-creators:** In 2012, the respondent was part of a campaign called *Milk is thicker than water* where local dairy farmers in Jämtland would receive one Swedish crown for every package of ARLA milk sold in the stores. It seems that one of the negative side-effects on the local level was that it was motivating ARLA to decrease the milk price and to increase the pressure on the small-scale dairy farmer community even further. Although this fund was not an actual success, it pushed Åre Bondgård to keep on going and confirmed their picture of the industry (Andersson, 2015). In the frame of this analysis authorities and large-scale producers have been categorized as *Co-creators* because Åre Bondgård seems to perceive these two actors working against small-scale producers instead of cooperating with them. As previously brought up, a few years ago the co-owner Jörgen Andersson has been promoting raw milk produced in a micro-dairy located at Åre Bondgård under the brand Åremjölk which was financed through a fundraising campaign. One of the main factors for the failure of this project might have been that the previous farm owner viewed these activities with skepticism and did not really provide any valuable support. During this project there have been many technical problems with the processing machines and struggles to reach customers because the Swedish legislation on food hygiene merely allows distribution of raw milk in small amounts to individual consumers (Andersson, 2015; Livsmedelsverket, 2014b). In this context suppliers of equipment might become especially of importance since their expertise, their know-how and the quality of their products might as well determine Åre Bondgård’s chances of success in promoting raw milk in the future. Suppliers of fodder have been excluded in the desired key stakeholders as they will not be required anymore once the cows will be grazing outside. Most importantly, the farm owners should appear as *Co-creators* since they are the ones leading the business and designing their staff’s and the animals’ conditions. But it might eventually also influencing their employees’ own worldviews.

**Earth:** The long-stretched Åre valley along the dairy farm represents a unique landscape as well as its species need to be preserved and protected in order for the local ecosystem to be valuable and sustainable. An issue in this respect is the increasing number of tourists that seem to be driving demand for an even larger exploitation of the local natural resources. The large-scale dairy cooperative’s pressure on small-scale farmers might somehow be one of the factors for Åre Bondgård to save money on their animals’ expenses. This is reflected in the fact that the milking cows would be able to live longer if they were not exposed to this presently quite high degree of exploitation. One may however claim that a rise in interest and growing demand for regional products may appear as a desirable and favorable development for Åre Bondgård in terms of economic viability and milk volumes to be sold. At the same time, the region might lose of cultural authenticity and accept the depletion of their landscapes in order keep its attractiveness for guests and the local population. This represents a dilemma for small-scale producers who would like to lead their business in a way that requires as few natural resources as possible. Nonetheless, it might still be acceptable if the milk production in itself is done in a less harmful way for both nature and animals than it appears to be done now.

**Communities:** Generally speaking, local small-scale dairy producers seek to make a
living from the milk that their cows provide. The scattered local landscape might make it difficult to reach local consumers with your message and your products in a simple way.

**Investors:** The respondents’ opinion on the group of investors seems only to be shared by a small number of people. This is at least what the respondent’s arguments prevail and the emphasis he puts on people supposed to change their perception of this key stakeholder group. It looks like as if presently society would only link investors with people who like uncertainty and who act very imprudently. So, inventors might still need to stay skeptical and careful when looking for investments into their ideas.

5.1.2 Analysis of Oviken Ost’s key stakeholders

**Costumers:** As one might have learned, most of Oviken Ost’s consumers are to be found outside the region. This leads to the question whether or not this is also the case for other small-scale producers. In case it is, one might investigate what ways there exist to make them learn more about the kind of local products that are available so that they would start consuming them on a regular basis. Cooperation with retailers like ICA does not appear to be Oviken Ost’s favorite distribution channel. One might assume that it would also represent a risk for ICA because Oviken Ost’s cheeses might be more expensive than the ones the retailer is usually selling, for instance the ones from the dairy cooperative ARLA.

**Co-creators:** It might not only be essential to have knowledge about the technological side of agricultural processes but also related to business planning and accounting. In the present case it seems to be crucial that especially the ones involved within the dairy are integrated into early stage of any planning process so that Oviken Ost’s owners know what they require.

**Earth:** At the start of their business the farm owners Kristina and Robert Åkermo had to import different rams from Holland and Finland in order to be able to “start selecting the animals showing the best milking properties, which are to give a good amount of milk with high fat and protein levels” (Oviken Ost, 2015). When they decided to design this very individual breeding plan for the sheep they have been struggling with the Swedish NFA for about 9 months before they were finally allowed to implement their idea. These struggles might show other producers that it might be worth fighting for a more consistent design of official legislations that reflect the actual processes on the farm. In fact co-owner Kristina Åkermo expressed dissatisfaction about external support by institutions like the European Union that in her opinion would only be given to predetermined areas and thus, not actually responding to farmers’ actual needs. Therefore it remains questionable whether the project suggestion within the present will be taken up by Oviken Ost and effectively of use for them or not.

**Communities:** In Oviken Ost’s eyes on the long-run the local small producer community’s power and strength would ideally grow in relation to large-scale producers and equally increase their influence on authorities and adaptation of their legislations to the farmers’ real contexts. As this community is quite strong in the Jämtland region, one cannot be sure about this tendency in other regions or countries if not producers stop to see each other as competitors. One might argue that wholesalers, the restaurants and Oviken Ost taken together form their own community. On one hand, if the small-scale dairy producer manages to keep quality of their cheeses and dairy products on a constant high level, this is reflected in the meals the chefs can offer to their guests and the appreciation by the guests. On the other hand, if chefs from the
finest restaurants keep on ordering their cheeses, this is a confirmation for Oviken Ost for their efforts and a good reference for their reputation.

5.1.3 Criticism of the model
Some of its preset terms might have appeared confusing for the one analyzing actual key stakeholder relationships and values but also for the one reading the results. This was for example the case for the term Co-creator because one might wonder who the creator in this case appears to be. For the present key stakeholder analyses one might refer to the respective producers as the Creators and their Co-creators fulfilling the function of the producers’ directly linked partners. Also, the term customer might not be commonly used for private persons as consumers. Nonetheless, for the purpose of this study and based on the model, they belong to the stakeholder group called customers.

5.2 Consumer resistance to innovations
Ram and Sheth (1989) provided a way of explaining why consumers may resist innovations, in the present cases this would concern the implementation of the milk filling station and the promotion of skim as an energy drink. Keeping in mind the values that have been uncovered during the key stakeholder analysis, the concept of Consumer resistance to innovations attempts to elaborate on the barriers and risks that Åre Bondgård and Oviken Ost may respectively encounter in case they decide to take over the project suggestions for their businesses. The so-called Functional barriers concern the way consumers traditionally use a product, what direct product or symbolic values they assign to it as well as what risks they connect to them. The group of risks and its sub-groups are connected to the so-called Risk barriers and has been split up into the physical kind of risk barriers that may relate to harm done towards a person or his property. On the costumer side the so-called Economic risk barriers may refer to the risk related to the consumption of capital goods such as computers or mobile phones. On the producer side it may be linked with eventual investments in order to implement a new production method that is eventually being applied for a new product. Functional risk barriers relate to the consumption experience for the consumer who may detect problems or show appreciation that may be communicated to the producer. Social risk barriers may be correlated to obstacles and stereotypes by other people in the society when one decides to consume or like in this case produce a specific group of products. Ram & Sheth (1989) further divided the group of barriers into the group of Psychological barriers. These are firstly referring to Image barriers that describe the customer’s perception according to which a product forcefully would need to find its origins in a particular sector. But once the associations between product usage and original sector would not match anymore, the consumer would become skeptical towards the new product. This behavior is strongly linked with Tradition barriers that originate from customers’ beliefs and habits which may keep them from adopting an innovative product (Ram & Sheth, 1989). The following table (Table 5) includes an application of the model to two project recommendations described beforehand. It needs to be specified that physical, economic and social risk barriers may also arise from the producers’ individual circumstances and resources at hand.
### 5.2.1 Possible barriers related to the project suggestions

#### Table 5. Possible barriers related to the project suggestions for Åre Bondgård and Oviken Ost

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Åre Bondgård</th>
<th>Oviken Ost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Usage barriers</strong></td>
<td><strong>Customer side:</strong></td>
<td><strong>Customer side:</strong></td>
</tr>
<tr>
<td></td>
<td>Due to its higher fat content raw milk has a different texture and a higher number of bacteria than pasteurized milk (Livsmedelsverket, 2015).</td>
<td>Fluid skim milk as a new type of energy drink might not have as an artificial sweet taste as the common energy drinks which people are used to consume.</td>
</tr>
<tr>
<td></td>
<td>Raw milk only has a short shelf-life and therefore it needs to be consumed shortly after its date of purchase (Livsmedelsverket, 2014b; Livsmedelsverket, 2015).</td>
<td>Some may expect that low-fat milk may not fulfill a boosting function and that it may not taste as good due to the ‘missing’ fat.</td>
</tr>
<tr>
<td><strong>Value barriers</strong></td>
<td><strong>Customer side:</strong></td>
<td><strong>Customer side:</strong></td>
</tr>
<tr>
<td></td>
<td>Direct monetary value: Due to the same price level, the quality might not be estimated significantly higher compared to treated milk available in grocery stores.</td>
<td>Direct monetary value: As the skimmed milk might probably be more expensive than usual types of energy drinks, the conventional choice may still be preferred.</td>
</tr>
<tr>
<td></td>
<td>Symbolic value: The local community may feel especially attached to Åre Bondgård and their work.</td>
<td>Symbolic value: Involvement of local community into the refinement of the new energy drink.</td>
</tr>
<tr>
<td></td>
<td>Tourists may not care much about these aspects and only look for an exceptional (consumption) experience.</td>
<td>Customers might still know little about the nutritional values of skim milk and associate few positive symbolic values with the new product.</td>
</tr>
<tr>
<td><strong>Physical risk barriers</strong></td>
<td><strong>Producer side:</strong></td>
<td><strong>Producer side:</strong></td>
</tr>
<tr>
<td></td>
<td>Restructuration and reorganization of production facilities</td>
<td>Slight restructuring and reorganization of production facilities</td>
</tr>
<tr>
<td></td>
<td><strong>Customer side:</strong> Perception of raw milk as a threat to their health because of many cases of infections in Sweden due to campylobacter in the milk (Livsmedelsverket, 2015)</td>
<td><strong>Customer side:</strong> Customers may worry that the consumption of skim milk is dangerous to their health since in 2007 a study has shown that skim milk could be correlated to a risk of falling ill with prostate cancer</td>
</tr>
<tr>
<td>Economic risk barriers</td>
<td><strong>Producer side:</strong></td>
<td><strong>Customer side:</strong></td>
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<td>------------------------</td>
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</tr>
<tr>
<td></td>
<td>Investment into the new equipment for the milk filling station, into restructuration of production processes and marketing measures</td>
<td>Uncertainty about the profitability and volumes of raw milk to be sold</td>
</tr>
<tr>
<td></td>
<td><strong>Customer side:</strong></td>
<td>Raw milk is a consumption good which means that customers are not bind on it for a very long period of time.</td>
</tr>
<tr>
<td>Functional risk barriers</td>
<td><strong>Customer side:</strong></td>
<td>Has Åre Bondgård properly thought through the production and the distribution of raw milk especially regarding the given hygiene restrictions? (European Union, 2007; Livsmedelsverket, 2014b).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Storage may represent an issue because it is hard to find official data except related to the powder (Lucas-Clements, 1981)</td>
</tr>
<tr>
<td>Social risk barriers</td>
<td><strong>Producer side:</strong></td>
<td>Exclusion by ARLA because it would not represent Åre Bondgård’s major customer anymore.</td>
</tr>
<tr>
<td></td>
<td><strong>Customer side:</strong></td>
<td>Skepticism among potential customers because authorities keep on promoting the stereotype about raw milk (Livsmedelsverket, 2014b; Livsmedelsverket, 2015).</td>
</tr>
<tr>
<td><strong>Image barriers</strong></td>
<td><strong>Customer side:</strong></td>
<td></td>
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<td>-------------------</td>
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<td></td>
<td>Producers intending to offer innovative products not conform to official standards may be seen as rebels or even as activists.</td>
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<td></td>
<td>The farmer’s image may heavily suffer because customers do barely know about alternatives to conventionally produced milk and its benefits.</td>
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<td></td>
<td>Customer side:</td>
<td></td>
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<tr>
<td></td>
<td>People may feel that only a leftover of another product is sold to them as a measure of the farmer to get rid of it.</td>
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<tr>
<td></td>
<td>Good marketing required because conventional energy drinks are often promoted to young people with a quite showy design and campaigns (World Health Organization, 2014).</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Tradition barriers</strong></th>
<th><strong>Customer side:</strong></th>
</tr>
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<tbody>
<tr>
<td></td>
<td>The commonly promoted image by large-scale producers appears to be that if one consumes their products they would be taking responsibility for the environment and standing for the farmers’ interests.</td>
</tr>
<tr>
<td></td>
<td>Returning to milk production how it was in earlier times is not an innovation but rather a step backwards with the well-known consequences and illnesses.</td>
</tr>
<tr>
<td></td>
<td>Customer side:</td>
</tr>
<tr>
<td></td>
<td>Since it has been promoted that way in European legislations, people mainly know skim milk in the form of powder (European Commission, 2010a; European Commission, 2010b).</td>
</tr>
<tr>
<td></td>
<td>Energy drinks are known to boost your body and wake you up on the short term (Mantak et al., 2015; caffeine informer, 2015a).</td>
</tr>
</tbody>
</table>

5.2.2 Comparison of barriers for Åre Bondgård and Oviken Ost

The preceding table (Table 5) showed that Åre Bondgård and Oviken Ost would be facing quite similar barriers in case they would decide to take on the suggested projects. We may especially recognize common kinds of barriers related to product usage, symbolic product value, economic and functional risks. In the following paragraph the concrete barriers to implementation on both customer and producer side will be described more in detail.

**Usage barriers:** Customers may be irritated by the fact that due to its higher fat content raw milk has a thicker texture and a higher number of bacteria than pasteurized milk (Livsmedelsverket, 2015). Furthermore, it only has a short shelf-life and customers need to drink or use it shortly after its date of purchase (Livsmedelsverket, 2014b; Livsmedelsverket, 2015). Fluid skim milk as a new type of energy drink might not have as an artificial sweet taste as the energy drinks which people are used to consume. This is why some people might perceive the actual natural taste as artificial. Also, most
energy drinks contain a certain amount of caffeine to make the body feel awake again (World Health Organization, 2014; Sgobba, 2014; caffeine informer, 2015a; Mantak et al., 2015). Some may expect that low-fat milk does not fulfill latter function. Nevertheless, it might be welcome by sporty and weight-conscious people that would like to have an alternative to the common kinds of energy drinks (caffeine informer, 2015a).

**Value barriers:** Assuming that Åre Bondgård’s raw milk product would be as affordable as conventional milk, the direct monetary value shall not represent any significant barrier for customers to drink and use raw milk. But due to the same price level, the quality might not be estimated significantly higher compared to pasteurized milk. The local community might recognize the ideological value behind raw milk and the Holistic management concept because they feel especially attached to Åre Bondgård. Therefore, they might be interested in knowing more about their history and their approaches. Tourists may not care much about these aspects and only look for an exceptional consumption experience.

The conventional choice may still be preferred because the new energy drink might probably be offered to a higher price than it might usually have been the case. Besides, customers might know little about the nutritional values of skim milk and may not understand why it is promoted as energy drink. In order to prevent this, the local community may be involved into the refinement of the new energy drink in the form of tastings on place where they would have the opportunity to get into a dialogue with Oviken Ost to create an early attachment to the product.

**Physical risk barriers:** The milk filling station and its operation require additional facilities and would need to be put in place close to the farm (Fig.7; Fig.8; Fig.9). Customers may continue to perceive raw milk as a threat to their health because dangerous Campylobacter in the raw milk were at the origin of numerous cases of infections that have occurred in Sweden (Livsmedelsverket, 2015). Oviken Ost might need more space for the filling and packing machines and therefore their production facilities would have to be slightly rearranged and restructured. This would not only concern the production process for the energy drink but it may also affect other processes in the dairy. Customers may worry that the consumption of skim milk is dangerous to their health since in 2007, a study has shown that the consumption of skim milk is correlated to a risk of falling ill with prostate cancer (Reuters, 2008).

**Economic risk barriers:** Åre Bondgård would have to invest into the new equipment for the milk filling station not knowing whether it will pay off for them. They may only be able to distribute and sell low volumes in the non-tourist season which means less income during that time. Since the customer needs to consume the product soon after its date of purchase it does not belong to the group of capital goods. So, in case customers are not satisfied with the product, they would not be bind on it for a very long period of time. In order to make skim milk appropriate for distribution, Oviken Ost might have to invest into new equipment. But as eventually rather small volumes may be produced and sold in the end, the question remains whether or not the execution of this idea would be economically profitable for them. The tastings on place would give Oviken Ost the opportunity to offer a first prototype to people and those would ideally provide feedback so that Kristina and her staff could keep on improving its taste and packaging.

**Functional risk barrier:** Customers might worry whether or not Åre Bondgård have
properly thought through the production and the distribution of raw milk especially regarding the given hygiene restrictions (European Union, 2007; Livsmedelsverket, 2014b). They may ask for this information very openly in order to judge whether or not they can trust the small-scale farmers’ know-how and efforts in creating a high-quality product. Equal concerns may arise when people are considering consuming the fluid form of skim milk. Besides, some customers may need to be assured how long this product can be stored and in what ways it can be prepared.

**Social risk barriers:** Although Åre Bondgård would still be providing ARLA with bulks of raw milk to be pasteurized by latter, the small-scale dairy may risk to be excluded by the large-scale dairy cooperative because it would not represent Åre Bondgård’s only direct customer anymore. On top of this, it seems that the large-scale industry and authorities keep on promoting their judgement about raw milk to consumers (Livsmedelsverket, 2014b; Livsmedelsverket, 2015). This might be a reason for the ongoing skepticism among potential customers towards raw milk. Potential customers may as well hesitate to try and purchase skim milk because they may think that skim milk is only a product of low quality and thus, not eligible to be included into their all-day consumption. In fact, people may feel that merely a left-over of another product is sold to them as a measure of the farmer to get rid of it. These impressions may arise from the fact that currently skim milk is exported in the form of powder to developing countries or that farmers, among them Oviken Ost, have been giving it to their livestock as an additive to their feeding (Food and Agriculture Organization of the United Nations, 1967; Lucas-Clements, 1981; Åkermo, 2015).

**Image barriers:** Producers like Åre Bondgård intending to offer innovative products not conform to official standards may be seen as rebels or even as activists although they would just like to promote other than a commercial way of production and consumption. In such a case the farmer’s image may heavily suffer because customers seem to barely know about alternatives to conventionally produced milk and its benefits (Andersson, 2015). When Oviken Ost would manage to sell their new product in larger volumes the price of butter would decrease instead which may represent a motivation for current customers to try and purchase the new energy drink. However, it might be difficult to find a good marketing strategy to attract potential and gain new customers because conventional energy drinks are often promoted with quite showy campaigns, especially targeting a young, active and sporty group of customers (World Health Organization, 2014).

**Tradition barriers:** The commonly promoted image by large-scale producers appears to be that they would be taking responsibility for the environment and standing for the farmers’ interests. These seemingly positive messages addressed to their customers would make latter feel confident about their consumption behavior. Hence, customers might consider that returning to milk production how it was in earlier times might be a step backwards. This may be connected to the late 19th centuries’ invention of the pasteurization process that Louis Pasteur considered a good way to preserve milk but also to make people move away from the source of food production (Carolan, 2011). Since it has been being promoted in European legislations, people mainly are mostly familiar with skim milk as powder (European Commission, 2010a; European Commission, 2010b). Also, conventional energy drinks are known to wake up your body (Mantak et al., 2015; caffeine informer, 2015a) which is an effect that may not be as strong after the consumption of the newly developed energy drink.
5.3 Application of the term innovation to the present cases

In the present study the term innovation has mainly been used when referring to a renewal of the relationship between consumers and producers. One may have recognized that both Åre Bondgård and Oviken Ost do not only develop new ideas because they would like to appear more competitive than other small-scale dairy farmers but because they feel that they should be spreading their know-how with other producers in order to expand the network of like-minded actors or their so-called “Innovation ecosystem” (Lehtola & Ståhle 2014, p.156). However, to make an innovation of relationships possible one may argue that there needs to be someone starting with a technological innovation and proving its commercial success in order to prompt social and societal innovation. For the food sector one may apply the term “reversed chain thinking” putting societal values in the center of producers’ approaches (Both Lowe et al. 2008, p.229).

Application to the project suggestion for Åre Bondgård: Åre Bondgård’s owners may start with the setting up of a milk filling station as something that is new to the Swedish dairy market but that is not a completely new invention in itself since the idea has been put into practice in other markets already. Instead, they would focus on social and societal innovation that arises out of people drinking their raw milk and learning more about Åre Bondgård’s approaches and values. Those people would share their consumption experience and new knowledge with others so that the network of committed actors would be growing step by step. On the long-run consumers would continue by doing the same for other products as well so that the society as a whole would equally change their consumption patterns. Politics would lead the way to matching legal conditions to the new behavior.

Application to the project suggestion for Oviken Ost: The project suggestion for Oviken Ost sets the focus rather on opening a market that has been there before in Europe but in a different way. Selling skim milk as an energy drink would open new doors for both customers and Oviken Ost. The promotion of skim milk in the fluid form and as an energy drink may rather be described as a product development or incremental innovation because in Europe until presently it had mostly been used as a complement to the sheep’s feeding. However, offering a new kind of health drink may have an influence on people’s consciousness about health issues and make them start thinking about the effects of energy drinks they used to consume before (World Health Organization, 2014; Sgobba, 2014; caffeine informer, 2015a; caffeine informer, 2015b; Mantak et al., 2015). This may start a new trend in the tourist community who would be passing on their opinion among each other and eventually trigger a new kind of health movement within the sport’s scene, not least because Åre is one of the most popular Swedish winter sports destinations.

5.4 Application of the term small-scale farming in the present study

One may recognize that the two farmers’ approaches, especially regarding their livestock, show similarities to small-scale farming in the Sub-Saharan and Southeast-Asian context. Nonetheless, the underlying intentions differ significantly. Åre Bondgård and Oviken Ost would like to guarantee animals a life in satisfying conditions and to contribute to people’s health and to the sustainability of natural resources. In developing countries smallholders keep the number of their animals low because their main intention might merely be to survive. They might not possess enough resources to have more animals. Regarding herd and land size both Åre Bondgård and Oviken Ost do not belong to the average as it has been described earlier.
for the Western European context. Still, Oviken Ost can be called a family farm since its owners have taken over the land from the previous generations. The main activity, however, does not consist purely of farming anymore but of cheese production and promotion.

5.5 Limits and scope of the present study

The present study does not cover the whole food sector but only two actors within the Swedish dairy industry and its major actor ARLA as the large-scale producer. Certainly latter is, but there is another about 30 percent of smaller dairy cooperatives namely Falköpings Mejeri, Gefleortens Mejeriförening, Gäsene Mejeriförening, Norrmnejerier as well as Skånemejerier (LRF Dairy Sweden, 2013). We do not know in how far Åre Bondgård and Oviken Ost deal with these other cooperatives but we may assume that they hardly do. Another issue is connected to the number of cases that have been selected. They might provide examples of how the relation between small-scale dairy farmers and consumers can look like and how it can be enhanced or how it can be created or recreated. More cases could have been chosen in order to broaden the picture and the understanding of Swedish dairy farmers’ present situation and challenges on the ground. Besides this, the study only focuses on a region in Northern Sweden with its own characteristics and challenges. Hence, the results may therefore not be applicable for other parts of Sweden or even other parts of Europe. Moreover, research has merely been realized in a short period of time. Therefore it was only possible to have a screenshot of their activities and their daily challenges. Due to simplification and for the scope of this study, aspects that have been subject to change during the time after the field trip in February were not involved. Also, some disciplinary perspectives have been excluded or have merely been touched upon. Further analytical standpoints could have been taken from political sciences for example by talking about the political situation in Sweden and their stand to the national dairy market, from natural sciences for example by going more into details about production processes, veterinary sciences and agricultural engineering, or economics for example by describing market mechanisms, trade, competition or by elaborating on the financial situation of the two small-scale dairy farmers as a base for respective project suggestions. As a result, the present study is rather social-science based which makes it difficult to define indicators or other measurement tools that may provide input for a different kind of recommendations on innovation projects to be taken care of by Operational Groups. These would need to cover the ‘missing’ disciplines and views as soon as they might start working on a determined project.

6. Conclusion

(1) This work has described logistics management processes and key stakeholders of the small-scale dairy farmers at Åre Bondgård and at Oviken Ost.

Åre Bondgård: The farm finds itself in a transition phase where a lot of issues have to be discussed such as how to achieve and to manage nutritious soils for the cows to graze on, how to put the machinery in place, how much space is going to be needed for the animals and how to reach consumers and engage them in buying and appreciating raw milk for their all-day consumption. Therefore it took time to understand the current logistics management processes.

Oviken Ost: The raw milk cheese producer Oviken Ost has a quite settled supply
chain where the tasks within the dairy are well defined and where you will find a significant amount of steady customers.

(2) The study identified what values the small-scale dairy farmers at Åre Bondgård and at Oviken Ost assign to their key stakeholders.

Åre Bondgård: Customers should more openly express their actual needs and preferences to large-scale producers and retailers in order to make latter think about more responsible business approaches. Authorities would need to pay more attention to small-farmers’ production requirements and preconditions. Until presently they seem to be ignorant about this mainly because they appear to be heavily dependent on ARLA’s values that appear to be driven by commercial success.

Oviken Ost: For Oviken Ost reliability, respect and empathy are some of the most important components in the cooperation with their key stakeholders. When they are planning to introduce new products into their repertoire or when are rearranging their processes they always try to involve the whole staff in order to hear about their needs. While pragmatism is an indispensable element of their way to tackle problems and overcome legal barriers, they have shown that with regard to authorities it certainly also needs courage, patience and persistency to reach your goals.

(3) The current study has also identified what challenges Åre Bondgård and Oviken Ost respectively face on the Swedish dairy market.

Åre Bondgård: For Åre Bondgård, one of the major challenges on the Swedish dairy market represent the current rules on the distribution of raw milk and related hygiene restrictions. Connected to this, many people seem to have stereotypes related to raw milk and are therefore skeptical about its tolerance.

Oviken Ost: For Oviken Ost one of the major challenges on the Swedish dairy market represents the saturation of the local market with dairy products. Thus, they seem to be highly dependent on other markets but they would like to find ways to involve the local population more strongly into their group of steady customers.

(4) The thesis work has determined the key competences that the aforementioned small-scale farmers are mostly in need of in order to support them in implementing innovative ideas.

Åre Bondgård: A successful implementation of the project suggestion would mainly depend on knowledge input by researchers, by financial and marketing advisers and by a nutritional scientist, but also on sufficient financial resources at hand in order for Åre Bondgård to create a product that meets legal and social requirements.

Oviken Ost: In order for Oviken Ost to successfully implement their project suggestion they would mostly be in need of a marketing expert and a nutritional scientist in order for them to effectively promote their product and to offer a high-quality product to their customers.

(5) The thesis work has identified the skills and key areas are available in the form of
Operational Groups and which ones are lacking.

In Sweden, Operational Groups will only be available from September 2015. The Innovation Support Service within the Swedish Board of Agriculture is presently looking for members for Operational Groups that are supposed to cover various disciplines within natural sciences, social sciences and economics.

(6) This work detected and recommended potential Operational Groups including related areas of competence according to the respective farmer’s needs.

The present state of the setting up process of Operational Groups allowed making suggestions of potential actors and of areas of competence relevant for the successful implementation of the project suggestions and according to the farmers’ individual approaches. The detection of actual Operational Groups and their assignment to innovation projects will definitely be possible earliest from September 2015.

Overall, this study revealed that the term innovation can be seen and understood from various viewpoints. Besides, extended networks take a special role for small-scale farmers when sharing and seeking support for innovative ideas. Also, these might not forcefully be driven by competition with other producers in the same sector.

7. Recommendations

7.1 Method for key stakeholder analysis

Besides the applied framework there also exist other models serving similar purposes. The key stakeholder analysis could have as well been conducted with the help of another tool such as the Actor-Network Theory created by Bruno Latour (Latour 1999; Latour 1996). When looking for a suitable analysis tool, the Stakeholder Pentad Framework created by Sanford (2011) was however preferred because of its comparably simple application.

7.2 Relevance for research and practice

The present study might be of relevance for researchers that have been dealing with innovation and entrepreneurship. The study may provide proof for them that research in this field does not always have to be purely focused on technological effectiveness but also about how these ideas shape the attitudes and business perspective of key stakeholders. This may further entail that the technological innovation leads to a paradigm shift regarding food consumption behavior, perception and appreciation of food quality as well as regarding the short- and long-term environmental impacts of food production. Another aspect for researchers to recognize is that innovation may not necessarily have to result from competition among different producers but it may also arise out of the intention to lead your business in a way that might not correspond to official standards and traditional consumer habits. Taken together, the findings and discussion within this study may serve as a guideline for other small-scale farmers, not only in the dairy sector but also for other areas in case they would like to enhance their connection to their consumers. Also, there is no standard solution when it comes to national or European institutions providing external financial and knowledge support.
7.3 Evaluation of the project suggestions

**Project suggestion for Åre Bondgård:** Only in the event of the European Commission accepting and confirming the suggested limit of 70 liters of allowed raw milk distribution per week, the Swedish NFA may decide to finally make this limit part of the official Swedish legislation for food hygiene. Until then, Åre Bondgård would stay in the unclear (Radgivningsavdelningen Livsmedelsverket, 2014a; Radgivningsavdelningen Livsmedelsverket, 2014b). Hence, it remains difficult to carry out the suggested project even if their updated suggestion would be accepted in the near future. Small-scale farmers like Åre Bondgård would still rely on other sources of income in order to stay economically viable. There are still many open points regarding and around the project suggestion for example related to the area around the farm that will be used by the cows, the time it takes to obtain the ideal soil quality and the way latter shall be maintained and kept at a high-standard. Furthermore they would still need to determine specific criteria for the ‘ideal’ raw milk and measurements to show health effects on the short term and long-term perspective. Also, it is not clear yet how far away the filling machine may be placed from the farm and what formal restrictions there may exist. In order for them to find the right supplier they would still need to figure out what equipment would be required to build up the filling station and how much it would cost. Åre Bondgård’s owners would also need to specify whether or not the customers would need to bring their own containers or the machine would deliver bottles for the customer. They would have to define what amounts may be given away by the machine in total and at each filling. Regarding maintenance they should know how the machine would be filled and who would be responsible.

**Project suggestion for Oviken Ost:** As previously mentioned, Oviken Ost has already a fix structure and experiences from past projects that may influence how they approach the implementation of this suggested project. More generally speaking, one should wonder whether or not they are excluding a large amount of people by mainly selling their rather pricy products to other than their home market. This is also reflected in the way they are doing their marketing and who they intent to address with it. Another point of interest would be to investigate on a decrease in price and if it would have a negative influence on their image. The interview prevailed that they avoid to collaborate with the retail which leads to the question if it also an avoidance of the local population as their customers. Since co-owner Kristina Åkermo has been working with skim milk previously, she has at disposal some knowledge about its handling and its way of processing. Also there has been much research done on skim milk and energy drinks so that related information may be found easily and so that they might quite easily figure out a marketing strategy. Also, the question of profitability is still standing in the room because demand and volumes to be produced are not predictable yet. This has still to be figured out and investigated in the frame of a study on in order to give a more exact prognosis and evaluation on the probability of a successful realization. In this respect they would have to determine the extent of the required investments and the amount additional financial support. This may also involve thoughts about the amount of machines that would be required to fulfill customers’ demand for the new product. Further considerations may be done with respect to the sheep’s feeding. They would have to clarify whether the sheep would get anything else instead of their current energy drink and if it is the case what alternatives there exist. Oviken Ost might for the moment be less dependent on the developments in Jämtland because they have most of their business partners and customers outside the region. Instead, they seem to be more relying on the evolution of demand structure in the Stockholm region and might tend to design their invention responding those
consumers’ needs. It might however be favorable in the idea and invention phase to equally consider the local population’s and tourists’ preferences.

7.4 Formation process of Operational Groups for the project suggestions
In the present case there may be several ways of building and matching Operational Groups for projects with the small-scale farmers at Åre Bondgård and Oviken Ost. You might either find or choose one group supporting them in an area relevant for both farmers. Another option consists of having two different Operational Groups so that you would have one for each case respectively. But there might also be more than two of these groups which they would be able to apply for.

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Appendix

Field notes from my stay at Åre Bondgård during the week from 1rst to 6th February 2015

Conversation with Jörgen on the 1rst February 2015:

- Reconnection consumer – farmer through the concept of holistic management
  
  o Domestication of animals – Coming back to our initial agreement with the animals
  o Agriculture as the one of the first human steps of civilization by making use of the resources (milk, meat, fur and intelligence) provided by animals (dogs, cows, chickens, sheep)
    ▪ “we made an agreement with the animals but did not do our part properly” (Jörgen Andersson)
    ▪ “we demand too much from the animals and think that there would be no barriers of exploitation” (Jörgen Andersson)
  
  Goal: Reconsidering our task of the agreement
    ▪ Taking care of animal welfare and respecting their individual needs/ biological rhythm
  
  o Every product having its own story especially products of high quality
    ▪ Effort and energy during the production will ideally be recognized by consumers (ceremony, special taste compared to usual/industrial products) and show them that better alternative options are there
    ▪ You only mustn’t ignore them
    ▪ Consumers are currently tricked/ overloaded by a vast number of choices and few differences in taste and production methods => difficult to distinguish them from each other, low particularity

- Creating new consumer habits by offering new packaging
  
  o Low pasteurized milk is going to be sold in bag-in-boxes of 2 liters

- Now organic/ high quality products (perceived as) not affordable, offered to a higher price in the grocery stores
  
  o Certification for organic as top-down measure not reflecting the actual production process, needs, requirements and natural rhythms (structure of the soil)
    ▪ Too few knowledge by authorities about the actual farming activity and processes
    ▪ They are only imposing their interests on the farmers
  
- Local= “the least relations possible” (Jörgen Andersson)
  
  o Not forcefully meaning that the consumers are geographically close (e.g. Stockholm market)
    ▪ Main point: people appreciating your idea and support your idea/project by investing in it and so contributing their share
    ▪ Your idea will be more widely spread by such a network of contributors/ supporters to other parts of the country/ outside the country
- Problem: people providing capital and pushing your project might not really have the expertise to judge whether it is worth taking the risk or not => few/ no knowledge about potential (negative) effects to the market (prices, consumer behavior), to the environment (using chemicals to get as much as possible out of the soil and reducing biodiversity, animal feed of low quality) and to the society (no critical thinking, taking everything for granted)
- Depending on the degree of expansion of your idea it may happen that you cannot deliver your contributors/shareholders anymore => Consumers expects something in return for his/ her investment: seeing the result of what he/she has invested in

- Approaches towards taking risks:
  ⇒ Jörgen Andersson:
  - Someone suggesting to implement a particular idea (e.g. a new production technique) shall become the chance to realize it even though its efficiency/ effect has not been proven empirically
  - This person will make his/ her experiences, draw its conclusions from it and eventually change his/her strategy for the next project in case the investment turns out to have negative impacts on the environmental level, social level, political level
  ⇒ Other
  - The idea should be tested and its (mainly positive) effects been shown in previous experiments and studies, incl. the amount of resources to be used for the realization of different steps within the project and perspective (long/short-term)

Conversation with Jörgen Andersson on 2nd February 2015:

- Current situation on the farm
  - Ownership recently changed: Jonas Palm and his wife Hedi Wiesner; Jörgen
  - Åremjölk a trademark owned by Åre Fjällbete
  - Number of cows at about 120/130 producing about 30 liters per day (Total: 3700 to 4000 liters per day)
  - Cows standing inside being fed with a mixture of silage and supplements (low quality, industrially produced) to make them produce higher amounts of milk but cows on average only living 4 to 5 years;
    - they could live up to 10 years but due to the high degree of exploitation the cow does not reach that age anymore
  - Calves being fed with milk replacer incl. particular proteins mixed with hot water to make them grow faster => cheaper for the farmer but bad for animal’s health
- Transition phase
  - Vending machines (pasteurization machines) are going to be sold to a farmer in Skane because during the last year (2014) where they started with the production of the low-pasteurized milk the machines haven’t been properly working and causing problems
    - Will be replaced by a new and bigger one able to produce a higher amount of milk than the raw milk machine (price currently at 7,5SEK/ liter and possibly yoghurt (currently 30SEK/ liter due to addition of bacteria) => for the farmer it does not really make a big difference
The machine will enable the filling up of the bag-in-boxes

- Right now, in order to guarantee their economic viability they have to run the Åre Bondgård the way it has been run until now
  o Previous owner did not really care about their idea of the micro dairy
  o They will meanwhile try to spread their idea among the consumers and create awareness
- Law by NFA (allowing 10 litres of raw milk per day) to be implemented in April 2015
- Plan:
  o Reducing the number of cows down to about 70/80
  o Making them graze around the farm (size of the area: 100 hectares); corridors underneath the close by highway already in place so that the cows will be able to graze on the other side of it; Are valley + steep hills => challenging
    ▪ According to organic certification rules for organic farming the cows are supposed to be outside grazing 3 months (‘exercising but not necessarily supposed to eat the grass’)

- Current market situation:
  o ARLA keeps the price of milk very low and relies on industrial/conventional ways of production
    ▪ Their marketing tells another story
  o It has a share of about 75% in the Swedish dairy market => limit by the law
  o Are Fjällbete has put a kind of funding in place: 1SEK per liter of milk sold by ARLA at ICA will go to the farmers as a support of their idea
    ▪ Abusive idea: ARLA will still try to keep the price low

Conversation with Jörgen Andersson on 3rd February 2015 about ‘The ideal supply chain’:
- Using the infrastructure that is there but differently than now
  o Consumer supposed to have pulling effect on the ‘Supply chain’ (notion not preferred in this context) => Demand-driven supply chain
    ▪ Pressure on authorities => They are there for us, they should represent our interests and providing us services when we need them => we pay tax!
    ▪ Pressure on grocery chains for instance ICA who would have to take a stand in starting to sell the local products => Barriers within their system but also an opportunity for them to raise their image and create a closer connection to the consumers
      • Right now: Negotiations with ICA responsible in Jämtland who is supporting the idea
      • In 2012: Milk is thicker than water campaign => fund of Åre Fjällbete => of every liter of ARLA milk bought by the consumer, he/she contributes to the local farmers’ activity

- Retail
  Main idea: Consumer will come to the farm and pick up his/her order => Amount of milk/yoghurt preordered and paid beforehand
- Order supposed to be made online => milk in bag in box only remains to be handed out to the consumer by the farmer/staff
- In this way creating the connection between consumer and producer => consumer gets an impression of how the milk is produced, how the animals are treated, of the staff and can get further information…the producer getting direct feedback by consumer
- Save energy and costs caused otherwise by transport, milk containing a huge percentage of water => eating a lot of energy, expensive
- In the case of distribution to other parts of Sweden: working with the companies that are already operating who may make you a good offer for the distribution of your products

- Currently different farmers get together in groups via social media (Facebook) and sell their products via trucks => same mechanism: order via internet => payment => picking up the product

- Marketing:
  - Using the feedback systems that are in place => e.g. customer cards where you can collect points and through which you get information about consumer’s choices; the design of the shelves can have an important influence on the consumer’s choice
    - In general figuring out how the consumer shall be influenced/ fed with information to make him/her create trust on your activities and products
  - Picking-up system on farm: customer will give feedback right away
  - Right now, consumer caught between the industry’s interests and the local farmers having the intention to do something good for the community and the local economy => ambition of consumer to get knowledge/ being curious and putting pressure towards the legal system; not wanting anymore to buy low quality products

- Waste return cycle
  - Returning system with bottles has been used before
  - Not clear yet if it will be done with the packaging as well but idea is in the room

- Approach: Using the resources/ infrastructure that is there in order to shift towards the situation to be achieved (instead of creating more and using further resources which would only add up to the current unsatisfying situation and not really change anything in people’s, authorities’ mindsets, responsibilities)

- Planned economy/capitalism currently the existing values dominating the way consumers (should) behave according to the industry/mass production
  - seeing themselves as victims; thinking everything is imposed on them, complaining about what is going wrong and not really doing anything about it

- Scale from 0 to 100: Swedish people would rather put themselves at around 25; -
  - everything below 25: people taking as few responsibility as possible;
  - everything above 25: people taking responsibility and willing to change the current patterns of thinking and acting, taking initiative to change the unsatisfying situation.
- Consumer can take responsibility by supporting the innovative ideas of others respectively taking initiative themselves to launch a new project, idea etc.

**Conversation with Jörgen Andersson on 4th February 2015:**

Main questions from his side:

- Which result are you heading to with all the information I provide you with?
- What information do you still need?
- How do you want to proceed further?
- What aspect are you particularly interested in?
- What time horizon are you planning to work on?
- What time window do the ‘Operational groups’ require? (weeks, months)
- How can your research be of use for us? How do you want to narrow it down?

Main questions from my side:

- What support is already there?
- Where do you need most support?
- What is your time horizon?
- Who are your main competitors?
  ⇒ Status: Pinning the research down to one concrete area, objective in order to proceed further

**Support**

- For the technical aspects (pasteurization machines, packaging machines) there are many small issues that need to be clarified and found answers to
- For the Marketing (How to convey your activities intentions to the consumers? How to earn trust by consumers and keep it? How to engage consumers to contribute to your activity by investing/ spending money on your milk
  - Holistic management production chain

**No major competitor**

- ARLA and authorities rather stimulating the new way of producing milk (grass-fed cows, nutrient cycle, healthy soil, healthy calves, healthy consumers due to much effort that is put into soil management and due to few modifications on the raw milk)
  - But: main message should not be the fight against the authorities rather a change in their approach to consumers, ideally in their laws and in the support to farmers, us as citizens

**The finished product (raw milk)**

- Right now thinking about what the milk should consist of ideally (criteria: low ecological footprint while producing it, coming from grass-fed cows who will be able to live a longer and healthier life)
  - But specific features still have to be determined; until then the ‘usual’ milk is sold

**Role of tourism**

- Important but it will get even more difficult to convey the message of locally produced food to them because they are not part of the long communication/ learning/ feedback process as the local population is
Right now huge amounts of money is invested into fancy hotels, restaurants, infrastructure, shops etc. so that a low share goes into agricultural activities

- Nevertheless dependency between both parties
- Tourists not too much into skiing anymore rather looking for gourmet experiences, spending their money on high-quality food that is (supposed to be) produced locally

**Concrete idea around Operational groups: Suggestion 1**

- Concept: the packaging as something physical which people hold in their hands, can take home and have time to read about
- Information on the packaging: the production concept and steps, the ideology, the product’s ingredients, location of production, how and where they can give feedback (in the form of telling a continuous story, regularly feeding the consumer with knowledge and about the evolution of the new production concept, stimulating the consumer’s curiosity, give him/her the feeling to be participant and supporter of something good and long-term oriented (health, lifting their quality of life, taking responsibility), design/message on the packaging could regularly be edited and make the consumer want to buy the next one to know how the ‘story’ continues
- Message on packaging (Grazing, ideology around unpasteurized milk: conveying message to consumer: it is good for you, your health, the animals, the ecosystem (reduction of the ecological footprint)
- Amount used (threshold: about 25000 packages per month?)
- Design of packaging? (e.g. simple drawing of cycle, but complex enough to contain all the information)
- How many costs?
- Who could support Åre Bondgård in doing this? What skills/ competencies does it require?

**Conversation with Jörgen Andersson on 5th February 2015:**

- Unpasteurized milk/ raw milk => food in general
  - Getting other farmers involved about the idea
  - People’s ability obtain knowledge about a ‘way’ of consuming
  - As a farmer reaching this curious respectively knowledgeable consumers in offering him/her a more nutritious food
  - Consumer’s conscience about meaning of legislations and making them reconsider their consumption patterns
  - Creating interaction between community and authorities
  - Changing the bad image of investments => proving that you can support something good

 Zhou Involving a big community
- Participatory debenture:
  - Option 1: making people come twice a year to pick up the products they have invested in and getting to see what they have invested in.
  - Option 2: Having an agreement with the next grocery shop which will sell your products
- Idea: Creating a model which would allow (small-scale) farmers to have a fruitful interaction with the authorities putting down legislations and industry (whose
interests are often tied together and mostly the same) in order to get them into the boat for the creation of incentives for healthier food => How could this look like in Sweden?
- Right now rather communication/ collaboration among consumers sharing knowledge about food/ nutrition/ health

Conversation with Jörgen Andersson on 6th February 2015:

- Priorities:
  1. Raw milk
  2. Bag-in-Box
  3. Financial instruments

- The tourism sector (restaurants, hotels) = ‘the low hanging fruits’ that ensure economic viability
  - Showing people the difference of product quality compared to the products they usually consume
  - Nevertheless: This is only a short-term exceptional consumption and does not change anything about their all-day consumption behavior
    - Tourists in Are region want to show others what they have by spending a lot money on good food and by doing themselves something good

- Agreements with supermarkets/ grocery shops very important in marketing and selling the products for the farmer
  - The farmer can be sure that his/her products are sold to the crowd
  - The supermarket chain can improve their image by promoting high-quality local products to the crowd
    - But ‘the crowd’ does not have any direct contact to the producer (the farmer) itself nevertheless receiving his/ her message

- Authorities and education about raw milk
  - Currently there is almost no connection between small-scale dairy farmers and the authorities
  - They are financed by public money which is fed into the industry’s needs
  - Representing the industry’s interests, therefore difficult to get through
  - The bulk of milk currently produced by dairy farms like Are Bondgård is transported to the Southern part of Sweden while the municipalities import their need of milk/ dairy products from Denmark
    - The milk quality decreased after it has been processed elsewhere
- Concrete idea round Operational Groups: Suggestion 2
  Offering raw milk products in schools as an attempt to spread knowledge among the (local) community
  - Establishing agreement between the dairy farmer and various feeding facilities in school canteens
  - Staff at the kitchens would get to know more about their preparation and health benefits
  - Showing the pupils how and what can be prepared with raw milk/ yoghurt
    - Offering them food consisting of respectively made with those ingredients
    - Regularly offering cooking classes where teachers would get together with the students/ parents to prepare dishes together and discovering the difference of taste and quality and on the long run recognizing the health/ wellbeing effects
    - Children would as well tell their parents about what they had been eating in school; later on when they have kids only make them consume products of such products
  - Similar attempts have been there already but pupils/ students do not get access to the kitchens anymore => costs apparently too high
  - Implementing such an idea would be a long term process:
    - Communicating with authorities and convincing
    - Evolution of raw milk business and establishing among the crowd first
    - Education as additional positive feature

Field notes from my stay at Oviken Ost during the week from 6th to 12th February 2015

Diary with observations and conversations

<table>
<thead>
<tr>
<th>Date</th>
<th>Diary</th>
<th>Conversations</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th February</td>
<td>The farm is located close the village Myrviken. Otherwise the area is sparsely populated; houses and farms are scattered.</td>
<td>Kristina: Rather few people are coming to the farm and buying their cheese =&gt; they would mostly buy it as a present but not for their all-day consumption Cheeses from Oviken Ost are sold in the local ICA stores as well (e.g. Sandviken, Myrviken, Östersund) but mostly delivered to restaurants Last year in October (2014)</td>
</tr>
<tr>
<td>7th February</td>
<td>The office/administration is located opposite to the farm shop in the same corridor. Passing through this corridor you’ll find staff rooms (to rest and to change clothes), a number of caves where the cheese is stored and matures, and last but not least a room where the packaging is being done (foil, signs, cartons).</td>
<td></td>
</tr>
</tbody>
</table>
Eldrimmer and LRF organized a farm tour, supported/financed by the EU, for local people so that they could travel from farm to farm (open doors) => they would like to repeat it again this year for a second time because it was a big success (e.g. at Oviken Ost there were about 500 people)

Tourists rather going to Are than to the area around Östersund

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Location comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th February</td>
<td>Observing Kristina forming the new groups of ewes</td>
<td></td>
</tr>
<tr>
<td>9th February</td>
<td>Helping out at the dairy: Starting at 7 in the morning, finishing at 5 in the afternoon</td>
<td>Oviken Ost mostly doing processing/raw material transformation</td>
</tr>
<tr>
<td></td>
<td>Brushing the cheeses with salt solution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Following the process of cheese-making and participating where many small steps have to be considered and where hygiene is especially important</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Today making blue cheese and pressed cheese</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Packaging of cheeses and putting etiquettes with date of fabrication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colleague packing ordered cheese with the help of delivery sheets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Every working step also described on the website (but in Swedish)</td>
<td></td>
</tr>
<tr>
<td>10th February</td>
<td>Packing cheeses and putting them into the fridge</td>
<td>Kristina: 9 months struggle with NFA when they were about to start their business: the planned way of raising the sheep/breeding was not according to the official standards =&gt; they had to kill the existing lambs so that a new breed could be raised</td>
</tr>
<tr>
<td></td>
<td>Observing/Helping out in the cheese production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Milking the sheep</td>
<td></td>
</tr>
</tbody>
</table>
Transcription of the interview with Kristina Åkermo on 11th February 2015

Rigunthe Rass (RR) (About the combination of Kristina being veterinarian and having expertise in cheese-making): I really like that you have the combination of those two (…), how to take care of the animals and all the experiences. For example Claire told me that the nutrition has an impact on how the milk is being processed or how it is turning out. I think it’s good to have both sides…that you can really check on both sides.

Kristina Åkermo (KÅ): It’s easier if you control also the feeding of the animals because you want this special kind of composition of the milk. So yes, it’s easier because you know what to give them (…). Some or a lot of people who have their own animals they still buy the hay or the forage for them, so then…

RR: …they cannot really direct how it is mixed or…

KÅ: No, and it can be a real disaster sometimes. And also there is Batyricum and gas production in the cheese and also the hay is not that nutritious (…). So then they produce not such a gas. So it’s quite an advantage to have it like that.

RR: But I mean of course it has impact on the final product, do you think your consumers really recognize when it is different or how do they…?

KÅ: Yeah, a lot of our customers say that they can recognize this is Oviken cheese because it has this special kind of smell and taste. You can only do this if you don’t pasteurize the milk because then the milk carries all the characteristics, it’s both the feeding and the miljö and… the milk and everything reflected on the product.

RR: But are for example, you deliver a lot to restaurants, are the chefs from time to time also coming here to check and to see how it is made?

KÅ: Yeah, quite often we have visits from chefs.

RR: I was just wondering how the feedback is coming back to you, (…). Of course when someone orders regularly that’s a feedback. So they tell you: ‘We like your cheese, we appreciate the quality, the way you make it. But I guess, you know, we were talking about this before, in these local settings it’s sometimes a bit difficult to catch the feedback. I don’t know if you have other mechanisms or…?

KÅ: Yeah, if it’s bad it usually comes through the wholesaler…and if it’s good they can put it on ‘Facebook’ or they can write a mail or…when you’re out…you know we often go out to…these wholesalers have meetings with chefs and so on which I went to.
on Monday, and then they have gathered a group of like 50 different restaurants I think. So then you meet the customers to the customer. So then you can talk to them and you know they can ask questions and they can comment on: “Well you should have more salt or…”

RR: So that’s the most direct way (of feedback) for you.

KÅ: Yeah.

RR: Is that some kind of network so to say or just the restaurants gathering?

KÅ: Yeah, so there has also been a project called Exceptionell råvaror…how do you call that…”exceptional raw material”. But it has been focused on chicken, pig meat…and what do you say dairy…like butter and cream, not only cheeses. And we participated with (sheep) butter and this Syrad grända (sour) cream. And then you have these very best chefs like Magnus in Fäviken and Esperanto, Björn Frantzén, and they give feedback to the producers. Because they want this more diversity. They really missed this, because it’s only ARLA who has their products and you have Scan who has the pig meat which must look very conform and so they try to enthusiasmate the producer to have different breeds and different sizes and…

RR: …to kind of experiment also…

KÅ: Yeah, and also, you know, I mean, show yes, there is the big industry who says: ‘this has to look the same all the time’. They say: well that’s not true, we are, even if it’s a small market, there is a market for really special products. So, it’s a sort of a waking up now in Sweden to have…I mean it’s ridiculous…in the ICA you only find Kronfågel chicken which is/looks exactly the same everywhere…it’s very industrial. But they don’t want to serve this in their restaurants. I think it started…there was some foreign guests at Björn Frantzén’s restaurant in Stockholm. He had this French Maize chicken to serve…and they were like Uhh, French? We don’t want French things when we are in Sweden.

RR: Local…

KÅ: So that’s what made him ‘Aha, that’s maybe not why you go abroad to eat…”

RR: Ja, but I mean it also depends on how you define local, I mean ‘local’ is always…How would you define local? Is it for you the next 50 kilometers or the next 100 kilometers or? You know it’s always

KÅ: I haven’t really decided, but at least Swedish if you are in Stockholm. You shouldn’t have to import… I mean things that we can produce here in Sweden.

RR: Of course.

KÅ: Of course it’s a long country and you have different…we have reindeer. So, of course you don’t have that in Stockholm.

RR: No.

KÅ: Of course, it has to be from the Northern part but it’s still like a significant meat of the Northern areas.

RR: Yeah, I heard that ARLA has like 75 percent in Sweden which is…
KÅ: …quite monopol-like…

RR: You are also part of Eldrimner…

KÅ: Yes, I mean Eldrimner is…you don’t have some kind of membership or anything but I go to their courses and participate. And I also, what do you call it, adviser…advise other…

RR: Farmers…?

KÅ: Producers…so there is courses here with beginners, two-days-beginners course, so it’s me and/or Claire…so they can learn how to make cheese in a basic way.

RR: Ja.

KÅ: And also they can call and I get paid from Eldrimner if I send a bill. That’s how I participate…and yeah I think it’s better that those who make things make it good. I don’t see it as a competition or… I think if the market is going to grow it’s better to have good stuff and to teach other to do it good.

RR: Yeah, I mean it’s a quite particular way to share knowledge or you know, to provide knowledge and it also makes something in the mind… I mean you don’t see each other as like: ‘oh I have to kick you away it’s rather like I will try to…”

KÅ: We will, if we are more people, if we have more products it can really lift all of us. So that’s how we think.

RR: I really like this concept of equal is like spread in different activities, different areas, I think you know, it’s really… if the industry is so powerful you want to…how to say that…put a bit of pressure. You have to kind of create a community which has this knowledge…

KÅ: Yeah…

RR: …which can shift to something new or which can…that’s what also Jörgen Andersson told me: if something is supposed to change or you think it should look different it should really come within, you shouldn’t wait from above to…

KÅ: Then it is really… I mean there is a lot of projects…EU money going into projects that are like…try to be adapted on, you know, the grassroots and it never works. It has to come from under, things like that…grown from the ones who are doing it.

RR: But how…what is your relation to the EU? I mean how do they kind of support you or…?

KÅ: But it’s…I mean…people like Robert who are educated and you know, they try to think…they are not themselves in the production but they have some idea: ‘This should you know suit this area, these producers…” They like make up something instead of asking What is it that you need? which Bodil has made from Eldrimner. She is also, not a producer herself but she goes to the producers and asks: ‘What do you want?’ ‘What can we…” I mean she has this Styrgrupp, what do you call it? A group of producers…one from each branch like bakery, charkuterie, cheese and bread and so on. They have meetings and they say: What is it that is needed in your branch, now? Is it more educated people? Is it more journeys? What is it that you need? And they, you know they have visited the Riksdagen, the Parliament, a lot of times to push on the
politicians. But so that’s…you know, the questions always come from the producers. And not someone sitting in Östersund and looking and see: 'Maybe that could be something…', you know, without asking: 'Is this something that you want?' When the money is out the project just dies…So that’s difference with Bodil…she really takes the right direction.

RR: I think the more attached you are the more you also want to support, you know, the more you are willing to support. I think it’s kind of natural or human…when you have a closer connection then you are…

KÅ: (Otherwise you ) lose interest or don’t see what’s in it for you.

RR: But for example how does it work, if you say: I want to produce this new particular sort of cheese or if you say: ‘I want to try out something new in the technique…’ like would she also, you know, you would call her…how does it work?

KÅ: No…

RR: How would you communicate that?

KÅ: I mean, we just do it ourselves. Maybe you could get some money for this, you know, product…how do you call that…product evolution. But I guess…it’s…if you want money from EU or something that’s a little bit of administration or not just a little bit, more than what it gives, so I think we have just tried ourselves, not involved any other people in it.

RR: I mean, of course, some projects are, or the money is only given for a particular period of time and I think if you’ll try a new technique or implement something new, you want to have it on the long run.

KÅ: It’s rather...we don’t go to Eldrimner and…you would rather go to one of the wholesalers. They are more like: ‘Yes, if you want to try this, we can support you with new forms’. I mean, if there is any costs related to this…because we want you to make bigger cheeses or do this or that.

RR: I mean it’s always a bit difficult to understand, you know, who is pushing, you know, or who is pulling and who…

KÅ: Ja, it is. But I think if it’s going to be successful and long-term, it has to be like a chain and all the pieces have to be strong enough, like you have to have good material to start with, and good people. I mean that has been, maybe, been a big part of our success, that we always try to have skilled people that we cooperate with like we have a photographer, this graphic-designer…so you know everything is done in a professional way. You cannot, you know, make a product and want it to be top top and you know have some…

RR: … be like: ’No Marketing’. Of course, you can have the best product but…

KÅ: …if it doesn’t look that way then it’s not going to be sold.

RR: It’s always like people have a first impression and are like: Am I gonna call them? Or hm…? But I can say from my side that it looks really professional and it’s really well made…I don’t know if you have had that from the beginning or you know, the website and all that design?
KÅ: No, but when we were going to decide how the etiquettes would look like and everything...we went to this woman...that we have had heard that she was good to work with and everything and said how we wanted the product to be and how the product should be...

RR: Perceived by people...

KÅ: Yeah, how people should see it. And I had myself this black color, it was my only idea but then how it will like with all the writing and everything that’s her personal idea, also this little rosette. Because we wanted it to be clear what it is: ‘It’s cheese and it’s from here, and then a simple name, alliteration...so we had some own ideas but we sort of worked it together and she had some ideas then.

RR: And last year, was it last year, you were/ went to London right?

KÅ: We just sent the cheese...

RR: ah, you just sent the cheese, okay, ...

KÅ: Yeah, we were not there ourselves, no. Yeah it was 2013 first with the Magna blue cheese, then 2014 we sent a lot of hard cheeses, not just one, but got one medal on the Fjällgröna so that’s lucky.

RR: It was a good sign for the...

KÅ: Yeah, I mean of course if you don’t have a good product it doesn’t matter what etiquette you have but it’s I mean

RR: …such an award...then it’s really...How did it work...like...how did you prepare or from which side came the incentive to participate?

KÅ: Actually it was one of the Danish wholesalers, a lady who works there, she is judge in the Jury of ‘World Cheese Award’. She said: ‘Well, yeah, you should send in your cheese.’ So that’s how it happened. Because (it gives, and you) if you get a medal, they write it in the papers. So it’s free advertising. We avoid, we don’t put us in papers or anything...

RR: Why not?

KÅ: No, we think it’s a waste of money. It’s a lot of money and I think it’s better to make a reportage or something. So we try to do that instead, and of course we sent these press releases when we got the medals.

RR: Yeah, maybe they are more effective, that’s true, because you never know who reads this.

KÅ: Yeah, it’s more and more, only old people now that read newspapers.

RR: Nowadays you really count on the media or on the social media...

KÅ: …or try to have chefs talking about it.

RR: That’s also a way. When did you decide to sell to Stockholm, or you know, to other places than here?

KÅ: Yeah, I mean we knew that from the beginning, I mean it’s just a 100000 people
here in Jämtland. So it will be far too little people too. And also there is already, I think
about 30 small dairies here in Jämtland, so it’s already a rather full market. Yeah and
also we wanted to avoid the *ICA* and those grocery stores because there is a lot more
work to do, small pieces and etiquetting and everything, than to send them pallets of
whole cheeses.

**RR:** As you do for the restaurants?

**KÅ:** Yeah, for the wholesalers to the restaurants.

**RR:** So you rather wanted to avoid working on them?

**KÅ:** Yeah, there is a lot of time consumed when you cut them and make this, put on
the paper and put on the etiquette. So, I mean it’s very much hand work.

**RR:** I think it’s also a risk to take, I mean if you kind of avoid to work with the…I
don’t know if I should use the word ‘avoid’, but if you go other ways than the
supermarkets, if you take other selling points.

**KÅ:** It’s part of, you know, the mystification also, that the restaurants rather like it to
be like this. You can only have it in this restaurant. It’s not that we avoid but don’t work actively on that
market.

**RR:** It’s good for your processes and good for the restaurants. It’s what makes them special.

**KÅ:** Yeah, maybe they don’t sell them at *ICA* but in some good stores. But I mean if
they ask we send some, but we don’t work on it. It has been for some shops that they
have customers who ask so then they contact us and so we know that they have
customers who want it. As it’s quite expensive if you compare to French cheeses or so
then they don’t risk, you know, if they haven’t had the customers who asked they
wouldn’t risk having them I think. It’s not that we avoid but don’t work actively on that
market.

**RR:** It’s good for your processes and good for the restaurants. It’s what makes them on
the other hand special as well because, you know, (...) it makes you something
particular and individual. I mean I think it is anyway but...looking from the outside it’s
not always that evident. I was just trying to think…(…). He was suggesting me [to
work on] *EIPs* and *Operational Groups* working underneath. They are supposed to
advise you in case you want to try a new technique or if you wanna go other ways of
promoting so…

**KÅ:** I actually have one idea that I would like to try and it is…you know when we
make butter we have a lot of skim milk which have we know tried to make half fat
cheese (out of). But they don’t sell as good as we thought. You know, it takes longer
time to mature and you get a little different texture. So I was thinking…and I also tried
to make drinking yoghurt from this low-fat milk and it’s very good if you have blue
berry or *lingon*, and little bit of sugar, not as much as the industry has. Maybe if you
have different berries…what do you call *Röda vinbär*, it’s *groseilles* in French, like
special berries from up North and sell it. But then you need a filling machine and a way
to pack it and also to distribute it because it has a lot shorter shelf-life.

**RR:** How long would that one…?

**KÅ:** Three weeks I think is the shelf-life of yoghurt. But I mean we don’t have the
equipment and we don’t have the…we have some customers that are interested but it’s
like…that would be something new where we could use this kind of milk. Making the cheeses we just give the milk back to sheep again and have elevated the price on the butter. So it pays the bill but it feels wrong to give it to the animals instead of using it to make a product. So I don’t know…that would be something…I don’t know if they would help you with those things…or is it other things?

**RR:** I think it could be such a project. It’s also the thing…if you say you’d rather, usually, work on these kinds of let’s call it project, on your own then, I mean it’s the question if you want someone, like a group of people, to look at that or? I am just figuring out if you would be happy if someone…

**KÅ:** Yeah that could be…I guess I have some kind of idea but it’s…we need to have more equipment to make it work, and those packing and filling machines are quite expensive, so then you would have to know that it’s going to be sold in that quantity and/ or it can also be that it’s a too small volume, so that it’s not economically possible. And then they would tell me that then…

**RR:** Yeah but sometimes you cannot really know beforehand. But I mean if you say some are already asking for it then you could go further…

**KÅ:** And another thing that I also have like a dream, that’s to build a natural cave, like a stone in the ground.

**RR:** Where the cheese would be stored…

**KÅ:** Cheese caves…because these artificial ones they don’t really work. I would like to have something where the walls can regulate the humidity and where you can have more like a natural…

**RR:** …regulation?

**KÅ:** Yeah, and also you wouldn’t need to put any cooling…if we would need something it would rather need some warming during the very cold winters. That would be really nice if we could arrange something like that. And also it takes a lot of energy, a lot of skills as well.

**RR:** But would that also make something on the taste?

**KÅ:** Sure.

**RR:** I heard that also like the wood. I don’t know if it’s the case here, the wood also makes a difference on the taste depending on which sort of wood…

**KÅ:** …tree you use. Yeah. We use sprouse here. They say it’s best. It doesn’t really…it can taste ‘Terpentin’ but it doesn’t give that, it gives a good character to the cheese. (…) Of course, we could have a slaughtery here…

**RR:** I imagine there are so many smaller things that you could think of.

**KÅ:** We could have a restaurant up there…There is a lot of possibilities but you realize you cannot do everything…

**RR:** You also need the people to work for you…

**KÅ:** It would be nice if someone young would say: ‘Yeah I can do this restaurant
project.’ And use their energy on this.

RR: I mean that would be great if you had a direct way…and make people come here also.

KÅ: Absolutely…and live and leave their money here.

RR: Yes, instead of other places…so many small things. I think that gave me a really good overview with all the things I have done myself and seen myself. I think I will still have some more questions…when processing everything.

KÅ: You can call or mail or…

RR: Ok, I will do that. Thank you!!