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# The role of public innovation support in the Swedish food industry

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## Abstract

This thesis examines the role of public innovation support in the Swedish food industry and the aim was to better understand what such innovation support does in order to accelerate SMEs. The aim was further to evaluate the activities of such innovation support to propose improvements to be used in a future national expansion. The food industry is often considered as a low-technological industry with specific attributes and challenges and the author stresses a need for deeper insights in innovation processes in the industry. It has for a long time been neglected and there is a lack of acknowledgement of the food industry and the public sector in the literature about innovation intermediaries and accelerators. The research was conducted through a single case-study which explored the activities of a project called “Livsmedelsacceleratorn” (LIVA) in the region of Västra Götaland in Sweden. The data was collected through micro-ethnography and complemented by two semi-structured interviews with employees of LIVA. The results show that the public innovation support play an important role as an innovation intermediary and include many aspects of the how the literature describes an accelerator. The analysis presents five themes through which the role of the innovation support manifests and those are, *building competence, connecting industry with research, creating networks, minimizing information asymmetries between actors* and *fostering innovation*. The research shows that LIVA is very competent in matchmaking and that their network and close connection to research helps companies accelerate their businesses. Furthermore, the research proposes for the innovation support to have a stronger focus on companies in the growth phase with more specific and competence building activities targeted towards them. The findings in this thesis have practical implications for policymakers and public funding regions in their decision-making and specification of requirements.

Keywords: *Public Innovation Support, Food Industry, Innovation Intermediary, Accelerator, Public Research Organization*

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## Table of Contents

1. Introduction .....	8
1.1. Background .....	8
1.2. Problem discussion.....	9
1.3. Purpose and research question.....	12
2. Literature review .....	12
2.1. Innovation intermediaries.....	13
2.2. Accelerators.....	15
3. Methodology .....	20
3.1. Research strategy.....	20
3.2. Research design.....	20
3.2.1. Sampling.....	22
3.3. Data collection.....	22
3.3.1. Primary data collection.....	22
3.3.2. Secondary data .....	24
3.4. Practicalities .....	24
3.5. Data analysis.....	26
3.5.1. Transcriptions and coding .....	26
3.6. Validity and reliability.....	27
3.6. Delimitations .....	28
3.7. Methodological reflections.....	28
4. Empirical findings and analysis.....	29
4.1. Overview of LIVA .....	29
4.2. LIVA's activities .....	30
4.2.1. Individual meetings with SMEs .....	30
4.2.2 Business model canvas workshop .....	32
4.2.3. Special topic seminars or workshops.....	32
4.2.4. Food Venture Sweden .....	32
4.2.5. Pitch training .....	33
4.3 The role of LIVA.....	34
4.3.1. Building competence.....	34
4.3.2. Connecting industry with research .....	38
4.3.3. Creating networks.....	41
4.3.5. Fostering innovation.....	45
5. Discussion and conclusion .....	47
5.1. Discussion- What should public innovation support do? .....	47
5.2. Conclusion.....	50

6. Practical implications and future research.....	51
7. References .....	53
7.1. Books and E-books.....	53
7.2. Electronic references .....	53
8. Appendix .....	57

## Table of tables

Table 1, Ethnography activities.....	25
Table 2, semi-structured interviews .....	26
Table 3, Activities of LIVA .....	30

## Table of figures

Figure 1 “Fig. 2. The Evolution of Technology Business Incubation Models” (Mian et al., 2016, p.3).....	16
Figure 2, The role of public innovation support.....	34

## **Definitions**

*Below is a list of how some concepts are used and their meaning in this thesis.*

Innovation support- Actor who aims to help companies with innovation and development.

Small and medium sized enterprises (SME)- Companies with less than 250 employees

Swedish food industry- Agriculture and food producers (Not retailers or agriculture in very small scale)

## **Abbreviations**

LIVA- Livsmedelsacceleratoren, The food accelerator

VGR- Västra Götalandsregionen, The region of Västra Götaland

PRO- Public research organization

SME- Small and medium sized enterprises

OI- Open innovation

ICT- Information and communication technology

KIBS- Knowledge-intensive business services

R&D- Research and development

## 1. Introduction

*This chapter presents a background of the Swedish food industry and its characteristics. The problem discussion further explains the challenges the industry is facing and new trends in solving them. Finally, this chapter outlays the purpose of the research and presents the research questions.*

### 1.1. Background

The food industry is fascinating since it concerns us all, and it is an important industry for the society in terms of occupation, culture and providing people with food. It also is one of the most important sectors of the world economy (Avermaete et al., 2004). In Sweden, the food sector is the fourth biggest industry with a turnover of 177 billion SEK (Livsmedelsföretagen, 2019). Compared to other industries, the food industry creates jobs in all part of the country and not just specific clusters, even though the biggest cities constitute the majority of occupation (Jordbruksverket, 2012). In the end of the value chain we find the retailers and they are dominated by a few, big actors and have been so for a long time (Jordbruksverket, 2012). In fact, they stand for 85 percent of the sales and the biggest player, ICA, represents as much as 50 percent of the market (Jordbruksverket, 2012). The two biggest segmenting of the industry are bakery and meat production and the southern parts of Sweden has a strong agricultural focus (Jordbruksverket, 2012). When Sweden entered the European Union, much concern was brought up regarding how the industry would be able to survive the international competition (McKelvey & Ljungberg, 2017). That was partly based on the harsh condition of the Swedish weather and high costs compared to other countries (McKelvey & Ljungberg, 2017). A research program was requested which later turned into a government bill and the program “innovative food” (McKelvey & Ljungberg, 2017). The purpose of the program was to stimulate innovation through collaborative research and it run from the years of 1998 to 2006. (McKelvey & Ljungberg, 2017). The program brought together large companies in the industry with academia and non-university partners and resulted in new capabilities within the food companies and new built networks often viewed as knowledge transfer (McKelvey & Ljungberg, 2017). Since the food industry is a traditional and mature industry, the innovation has historically been mainly incremental and not radical (Bayona-Saez et al., 2017). The production has also for a long time been supply-driven, but trends are now shifting towards a more demand-driven production (Bayona-Saez et al., 2017). Another current and upcoming trend in the industry is a stronger focus on sustainability, health, and biotechnology (Bayona-Saez et al., 2017).



Even though some previous innovation programs have been launched, the food industry in Sweden still faces many challenges, both sustainable in terms of environmental challenges, and competitive in terms of international competition from foreign markets (Ministry of Enterprise and innovation, 2017). In year 2013, an investigation of the competitiveness of the Swedish agriculture showed that the production had decreased and lost market shares which pushed the need for a new strategy within the Swedish food industry (Beckeman et al., 2018). Due to the importance of the food industry and its development, the Swedish government has created a new long-term strategy for the food industry; *A national food strategy for Sweden - More jobs and sustainable growth throughout the country* (2017), which will cover many levels of the society and guide the policy in the right direction (Ministry of Enterprise and innovation, 2017). Parts of the main objective for this strategy is to increase the overall food production, but also to do so in a sustainable way (Ministry of Enterprise and innovation, 2017). Furthermore, the objectives of the strategy cover different aspects of the industry, and a particularly interesting one to this study is the “knowledge and innovation” objective, which focus on enhancing the innovation systems for a better industry (Ministry of Enterprise and innovation, 2017). The systems should better support the supply chain and new skill-development will further lead to better competitive advantages (Ministry of Enterprise and innovation, 2017).

## **1.2. Problem discussion**

In order to understand the core of the Swedish food industry, one must look at the dominance of small and medium sized enterprises (SMEs) in the food producing part of the value chain in the industry. This is a prominent characteristic of the food industry and some of the biggest contributors to the industry are the small food companies (Avermaete et al., 2004) and in Sweden as much as 96 percent of the industry are small companies (Jordbruksverket, 2012). The innovation literature has historically focused on researching big industrial firms and little research have been dedicated to small firms (Avermaete et al., 2004). Not only is the research scarce compared to big firms, but the factors for innovation also look different in big and small firms and should therefore be researched separately and differently (Avermaete et al., 2004). The research on small firms has however increased and has found that the innovation elements within small firms have entrepreneurial characteristics and are not heavily focused on R&D, especially in low-technological industries (Avermaete et al., 2004). Findings also show that one of the most important determinants for small firms’ innovating capabilities are their use of external actors (Avermaete et al., 2004). Small entrepreneurial firms usually have the traits of scarce resources, which are one of the explanations to why the external networks and recourses

are especially important in their development (Avermaete et al., 2004; Gifford et al., 2015). Jarillo (1989) further validate the theory that external actors and networks are determinants for long-term growth for small companies. Gifford et al. (2015) describe how external collaborations is a way for companies to obtain new knowledge and ideas and how it for smaller companies can increase their innovative capacity. Collaboration with bigger firms can also benefit small companies in terms of new market access and reduced costs (Gifford et al., 2015). Their results further propose that manufacturing firms in regards to their innovation do benefit from deep collaborations with external actors (Gifford et al., 2015).

In addition to collaboration with external actors, Olmos-Peñuela et al. (2017) have studied the impact that public research organizations (PRO) have on small and medium-sized enterprises' (SMEs') innovation culture, and found that it has a strong positive relation, especially due to the scarce resources of SMEs. Their study showed that in addition to a stronger innovation culture, it also increased the advent of new products and processes. Moreover, Olmos-Peñuela et al. (2017) argue that PROs are one of the most important types of external actors to organizations due to their great possession of knowledge, expertise and capabilities in exploration. As a result of this, PROs can create the possibility of much greater breakthroughs for firms than they could have accomplished on their own (Olmos-Peñuela et al., 2017). This proposed importance of collaborations and networks calls for deeper investigation of how they occur and what factors within innovation support that creates value, and PROs further present themselves as an interesting object of study.

Sweden is one of the most innovative countries in the world, in fact Sweden ranks number two on the global innovation index yearly presented by Bloomberg (Beckeman et al., 2018). However, in spite of Sweden's overall excellence in innovation within many sectors, the food industry is lagging behind and only ranks number 14 in Europe (Beckeman et al., 2018). A report produced for Tillväxtverket explains six factors influencing the low innovativeness in the sector being; fragmented organizational structure with many small companies, low focus on R&D, national focus with limited export, supply-driven instead of demand-driven production, fragmented research in academia on food, and finally low persistence in earlier initiatives (Beckeman et al., 2018). It is clear that the industry is characterized with many challenges and attention is starting to gather around solutions to the stagnating industry. Many possible solutions and initiatives have started the last years, but there is little written about what they do and what implications these programs create for the industry and for the firms. Another remaining problem despite of new innovation support is a lack of cohesiveness and

collaboration amongst such innovation support actors. The food industry needs a well-functioning infrastructure amongst these initiatives and actors in order to gain as much as possible from them. A lack of collaboration between the different steps in the value chain as well as between actors in general prevent the sector from reaching its potential and the food strategy explicitly express a need for coordination within the knowledge and innovation system (Ministry of Enterprise and innovation, 2017). In general, there exists a lot of praise for increased collaboration and use of external actors amongst firms, however the food industry is still a low-technological and mature industry which is mainly characterized by incremental innovation (Pellegrini et al., 2014; Avermaete et al., 2004). Such type of innovation often includes imitation (Avermaete et al., 2004). In order to imitate, collaborations and networks with other companies in the industry is important for their success (Avermaete et al., 2004) but a contradicting issue with collaborations is the resistance to openness, and this is due to the fact that many firms within the food industry base their competitive advantage on secrecy (Pellegrini et al., 2014). Openness to collaborations is more common in high-technological industries with formal intellectual property rights (Pellegrini et al., 2014). However, the food industry is evolving, and interest is growing in new innovation systems such as open innovation (OI), innovation hubs and collaboration between companies and sectors. The technological evolution in form of the information and communication technology (ICT) and biotechnology have been a major driver towards OI in the food industry (Pellegrini et al., 2014). Furthermore, the customer demand is also a key driver towards OI as the firms hope to better meet the demands through collaboration (Pellegrini et al., 2014). The literature on the processes and collaborations are especially scarce within the food industry and to better understand what is done today and what can be done in the future, a study on current processes of innovation support is highly relevant in time. The literature on the process of entrepreneurship and use of external actors is quite extensive these days, but the literature on entrepreneurship in a mature industry such as the food industry is still rather unexplored. Since the food industry is changing and slowly starting to open up to open innovation and collaborations between different actors, I stress the importance and interest of an academic research on these types of phenomenon.

This research will take place in in the context of a PRO, more specifically at the research institutes of Sweden (RISE). RISE is a public research organization that in 2014 started an innovation support program called “Livsmedelsacceleratorn” (from here on LIVA), translated to the “Food accelerator”. This is an initiative that connects SMEs with necessary competence, advice and network within the food industry (Livsmedelsacceleratorn, 2019). The innovation

support is funded by the region of Västra Götaland, Tillväxtverket and the European Union and is hosted by RISE (Livsmedelsacceleratoren, 2019). LIVA functions as a matchmaker and intermediary with great internal resources and competences, aiming to help SMEs in the region of Västra Götaland. They discovered a need for helping food companies grow and thus strengthen the Swedish food industry. Furthermore, LIVA is planned to expand to other regions in Sweden and has presented a need for investigating what such expansion should look like. LIVA is also a part of the bigger national food industry network called SAMLA Sverige, also partly driven by RISE (SAMLA Sverige, 2019). Their overall agenda is to improve and grow the Swedish food industry by connecting and create collaborations between different support actors related to the food industry in Sweden.

### **1.3. Purpose and research question**

Based on the above described background and problem discussion, the interest of innovation support has led to the following more general research question:

*What role does public innovation support play in accelerating SMEs in the Swedish food industry?*

By researching the former question, a sub-question with more practical implications is suitable and follows:

*What should a national public innovation support system look like in order to accelerate SMEs in the Swedish food industry?*

The purpose of this thesis is to deeper understand what role public innovation support play for the acceleration and development of SMEs in the Swedish food industry. By examining how the innovation support by LIVA works and is conducted, one can better understand and evaluate the most crucial components of it, as well as to see what issues arise. Based on the indications of good (not best) practice, the aim for this thesis is thus further to propose practical implications of what such support can look like in a bigger national context.

## **2. Literature review**

*This chapter presents existing literature on two topics related to this thesis. It is divided into, Innovation intermediaries and Accelerators. The researcher has identified a gap in the literature as there is little connection to the food industry in previous literature on accelerators*

*and intermediaries. To the knowledge of the researcher, the existing literature presented below is the closest possible in describing innovation support similar to LIVA.*

## **2.1. Innovation intermediaries**

The literature on innovation intermediaries is growing in line with the open innovation literature as many pair these two together. Katzy et al. (2013) presents a coherent agreement in recent literature that intermediaries function as coordinators in open networks, often industry- or technology specific. An intermediary is described to do various things and Yang et al. (2008) and Katzy et al. (2013) present several earlier definitions by authors describing the phenomenon. The role of intermediaries is described to include matchmaking of actors, scanning and absorbing knowledge, brokerage, gate-keeping, knowledge diffusion and being the communicating entity. The literature covers many different, and sometimes distant definitions of what an intermediary is and what its operations look like. It is an upcoming trend and in technological industries, these new intermediary markets and platforms can work as a broker for patents as electronic R&D places and hence capitalize on other collaborations (Yang et al., 2008; Katzy et al., 2013). However, actors funded by the government and with sometimes non-profit business models also exists, and examples of such are presented by Katzy et al (2013) as science parks and development agencies. Yang et al. (2008) focus their research on innovation intermediaries within knowledge clusters where intermediaries play an important role in both linking and transferring knowledge. The authors also argue for the importance of deeper understanding of the innovation systems and how knowledge actually is created, used and incorporated into the system. This immediately links to the learning capabilities of individuals and firms in industrial clusters where knowledge is the key (Yang et al., 2008). Innovation intermediaries works as cost minimizers by providing the service of scanning and evaluating information (Yang et al., 2008). Yang et al. (2008) present over 15 different names or definitions of an intermediary and its operations, which is either showing a lack of coherence in literature, or pointing at the complexity of intermediaries. It is important to understand the variety of definitions in order to apply the closest explanation to the subject one researches. It is clear that the term “innovation intermediary” can mean many different things and most of the definitions can only be applied to high-technological industries or platforms.

Howells (2006) has summarized and provides an extensive list of literature about intermediaries and the different ways of viewing them. His work is an important contribution to the intermediary literature in terms of bringing the different academic literature on the topic together, to a more cohesive and comprehensive summary. In that way, one can easier

understand the wide range of areas in which intermediaries have been studied, and also understand the heavy focus on technological industries in the literature. Howells (2006) divides the literature on innovation intermediaries into two parts, one focusing on intermediation as a process and the second focusing on intermediaries as organizations. Howells (2006) further discuss the lack of cross-referencing between authors in the intermediary literature creating a non-consistent development of theories. One of the first areas in which innovation intermediaries have been discussed is the one about diffusion and technology transfer, where intermediaries have an important role in speeding up the process in technology transferring between two parties as well as in the decision-making process (Howells, 2006). Innovation intermediaries have also been discussed in the literature about innovation management and focuses on intermediaries as organizations and their role in transferring knowledge and technology between actors and their activities in linking actors (Howells, 2006). The third area of literature is about innovation systems and networks where intermediary firms link actors and create networks and ecosystems (Howells, 2006). Such organizations can be private but also public research organizations, universities and similar (Howells, 2006). They build systems and networks which often are local and spur innovation between actors. The last body of literature that Howells (2006) presents is about new service organizations, often known as Knowledge-intensive business services (KIBS). Such organizations can be the bridge for innovation in the interactions with clients and KIBS have gained a new role in innovation systems (Howells, 2006: Yang et al., 2008). Howells (2006) concludes that intermediaries have a much more varied and extensive role than the literature have presented and state the importance intermediaries play in creating innovation systems. However, since intermediaries often have an indirect impact, their value can be hard to measure (Howells, 2006).

Even though the function of intermediaries is widely described, the actual process and actions are less clear (Katzy et al., 2013). Katzy et al. (2013) research in their article the process and involvement of intermediaries in the innovation networks and processes. They state an interest in finding out whether the intermediaries play a passive role by simply transferring knowledge from one actor to another, or if they take on an active role and manage the collaboration and contribute themselves and, in that way, influence the creation of innovation processes. Their results indicate that intermediaries do in fact play a more active role in the innovation process. Katzy et al. (2013) also states existing opinions that intermediaries are crucial for a functioning innovation system since it minimizes asymmetric information by connecting actors. Furthermore, Katzy et al. (2013) conclude that the successful cases are those in which you can

show an economic value which is positive for both parts of the “deal” and also that they differ from the electronical markets by not only pairing two actors together, but where the intermediary also actively participates in the creation of the innovation process. Furthermore, finding the right resources to matchmake with and help the companies into an innovative process is an important quality of intermediaries (Katzy et al., 2013).

Innovation intermediaries often place their operations strategically in proximity to academia, research organizations or science parks (Katzy et al., 2013). Katzy et al. (2013) argue that the private intermediaries might look like an ordinary public support for SMEs at first glance, but taking a closer look reveals important competence in matchmaking, managing innovation processes and portfolio management. Katzy et al. (2013) distinguish between the intention behind an open innovation network and a regional or national innovation system. The open innovation network’s intention is to strengthen the superior firms through innovation, while the purpose of innovation systems such as the triple helix is to create shared knowledge (Katzy et al., 2013.).

Betz et al. (2016) research a model for innovation intermediaries in a triple helix model by looking at the successful case of Fraunhofer institute and Max Planck Institute in Germany. The research institutes aim to utilize science into technology by working close with academia and the industry and are funded by their respective governmental fund agencies (Betz et al., 2016). Betz et al. (2016) argue that an innovation intermediary such as the research institutes play an important role in commercializing science through research and thus positively affect the economy. The triple helix dimension explains that innovation happens in the intersections of government, university and industry (Betz et al., 2016). The Max Planck institute is an example of an institution which focuses on advancing science by conducting so called “basic research” (Betz et al., 2016). The Fraunhofer institute on the other hand focuses on engineering research which means that science is applied to a more practical scenario and one can therefore argue that such research is easier to commercialize and have a more direct effect on the industry and society (Betz et al., 2016). Fraunhofer is therefore a great example to use and benchmark against while modelling an innovation intermediary which the authors are trying to do in the article.

## **2.2. Accelerators**

The phenomenon of accelerators started in 2005 (Pauwels et al., 2016; Hochberg, 2016; Mian et al., 2016) as a new model for start-up incubation with a specific niche towards some of the services usually provided by incubators (Pauwels et al., 2016). Accelerators are described by Pauwels et al. (2016) as the “new-generation incubation model” and were originally designed

to compensate for other incubation models' imperfections. Based on previous literature on the topic, Pauwels et al. (2016, p.13) defines accelerators as: "Accelerators are organizations that aim to accelerate successful venture creation by providing specific incubation services, focused on education and mentoring, during an intensive program of limited duration". Some use the terms incubators and accelerators interchangeably, and due to the many different definitions and the heterogeneity amongst these types of models, the lines are blurred on what belongs where and some call themselves accelerators even though they do not fit the definition (Mian et al., 2016; Hochberg, 2016). However, Mian et al. (2016) make a distinction between incubators and accelerators by saying that accelerators tend to focus on helping firms in a post start-up stage where growth is the next phase. However, Cohen (2013) and Cohen and Hochberg (2014), who were the first ones to define an accelerator in academic literature, mainly describe the "seed accelerator", being an organization which accelerates very nascent entrepreneurs in their stage of forming the business and thus do not describe it as a post start-up phase in the same meaning. Brown et al. (2019) on the other hand, describe that accelerators focus on well-established or scale-up companies. Since Cohen (2013) and Cohen and Hochberg (2014) were the first ones to write about accelerators, it is natural that their definition of the subject has developed and changed since then, one should remember that accelerators are still a new phenomenon.

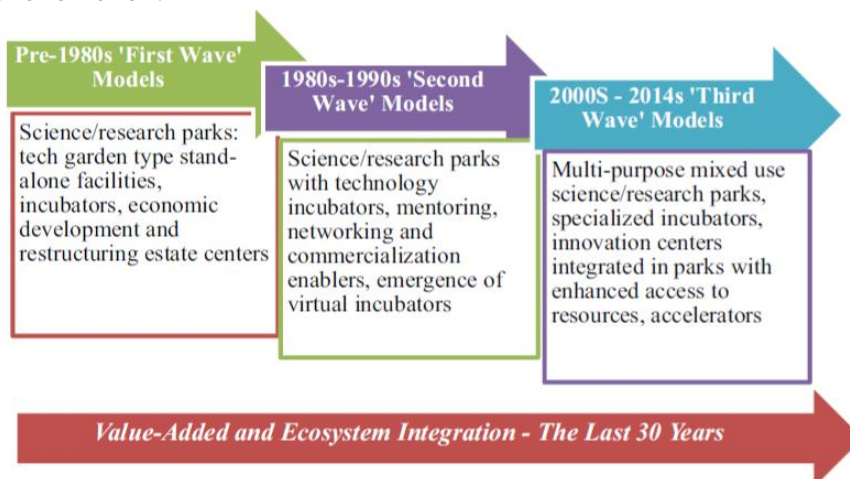


Figure 1 "Fig. 2. The Evolution of Technology Business Incubation Models" (Mian et al., 2016, p.3)

Mian et al. (2016) present in *Figure 1* above an overview on the evolution of different technology business incubation models during the last 30 years and accelerators are in the last "third wave models". It is important to understand the development of accelerators in order to discuss their role and its different definitions. The evolution of different models shows a very



late appearance of accelerators which could indicate further development and new definitions of accelerators in the future.

Due to the new digital boom in the economy, accelerators are often technology-oriented aiming for rapid growth and public policy is created to stimulate such initiatives (Mian et al., 2016), but it is not unusual that the programs have a specific industry focus (Cohen & Hochberg, 2014). Accelerator programs are highly selective of their members and only a few applicants are selected to go through (Cohen & Hochberg, 2014). The programs usually start with some initial seed funding or a promise of an exit funding and ends with a “demo day” where the start-ups pitch in front of investors (Cohen & Hochberg, 2014; Hochberg, 2016). It is common that the accelerators are privately owned and take equity in the firms, however public ones exist too and the incentives can differ (Cohen & Hochberg, 2014). Brown et al. (2019) present an increasing trend of public accelerators which usually do not take equity. One of the particular characteristics of accelerators is the limited time of duration as they usually run between three to six months and then the companies “graduate” in cohorts (Cohen & Hochberg 2014). Pauwels et al. (2016) present their results showing that accelerators differ from incubators in five aspects: program package, strategic focus, selection process, funding structure and alumni relations. The program package of accelerators include training and mentoring from experts or experienced entrepreneurs (Pauwels et al., 2016), as well as co-working space and access to an extensive network are part of the services provided for the start-ups (Hochberg, 2016). These services are valuable to start-ups since they otherwise would be very costly and time consuming to attain by themselves (Mian et al., 2016).

Pauwels et al. (2016) conclude three different types of accelerators which all have different aims with their business. The first one they describe is the “ecosystem builder” which often is created by corporation in hope to create an ecosystem between customers, stakeholders and start-ups (Pauwels et al., 2016). It is usually not created for profit but offers start-ups close connections with new customers. The next accelerator form is the “deal-flow maker” which are financially supported by investors such as business angels and select promising start-ups which will yield success (Pauwels et al., 2016). The start-ups in this type of accelerator are often in their expansion phase. The last identified accelerator type by Pauwels et al. (2016) is the “welfare stimulator” which is mostly funded by the government to support entrepreneurship, growth and regional economic development. The start-ups are usually chosen very early and has a niche in a specific industry or in creating welfare for the society (Pauwels et al., 2016).

Apart from the three described types of accelerators, Pauwels et al. (2016) also state that hybrids of the different types are common.

Goswami et al. (2018) write in their paper about the intermediary role of accelerators and their effect in creating entrepreneurial ecosystems. Accelerators are described as institutional intermediaries in the way they create ecosystems where other institutions have failed (Goswami et al., 2018). Like Seet et al. (2018) argue in their paper (described later down), Goswami et al. (2018) also present the interactions between entrepreneurs in an accelerator as a great way to discuss and together overcome challenges. Many accelerators have a joint office space which further creates the forum for entrepreneurs to meet and network (Goswami et al., 2018). However, they also explain how the effect of a shared workspace rely on the niche of the accelerator. If the accelerator is niched, the benefits from those interactions are probably bigger compared to in a general accelerator (Goswami et al., 2018). Accelerators need to have competence in helping companies develop, and they do so through training sessions and entrepreneurial education (Goswami et al., 2018). Goswami et al. (2018) also describes how such development training can be formal or informal. The formal training is done through training sessions, while the informal training is competence learned through interactions with other companies during discussions and networking. Other findings by Goswami et al. (2018) include the question on what development level the training should aim for. Some companies which attended a researched accelerator were not start-ups but over three years old. They found the basic business training in the accelerator too simple and said that they had already learned such basics at university. Mentoring is a big part of accelerators and for the experience to be valuable for both parts, it is important to align expectations and values between participants and educators (Goswami et al., 2018).

Brown et al. (2019) have researched accelerators and their importance in attracting transnational entrepreneurs. Their results show that the strongest motivation for entrepreneurs to engage in accelerator activities is not the funding, but to gain social capital. In the accelerators programs, entrepreneurs receive access to networks and can create relationships with peers in the same industry and with similar challenges. Brown et al. (2019) further describe the accelerators as intermediaries and with synonyms such as “middlemen”, “network intermediaries” or “brokerage mechanisms” and which’s function is important to match-make between different actors such as investors, customers and peers. However, this function is neglected in the literature which mostly writes about intermediaries in the context of general innovation systems (Brown et al., 2019). This intermediary role is a key factor in creating entrepreneurial

ecosystems and to foster innovation and entrepreneurship (Brown et al., 2019). Asymmetric information is often an issue for entrepreneurs especially in terms of finding appropriate funding, and accelerators can work to minimize this gap through their intermediary role (Brown et al., 2019). In their conclusion, Brown et al. (2019) discuss what they find problematic about public accelerators, and they compare new European versions to the ones in Silicon Valley and state that they believe difficulties for public accelerators exist in attracting promising ventures due to lack of prestige. Furthermore, since they usually do not promise any equity funding, it could be less attractive to engage in such programs (Brown et al., 2019). They state that it can be even more difficult for public accelerators to complete their match-making role if the region itself is weak in private funding to link to (Brown et al., 2019). Instead, problematic results may appear if the public accelerators lead to nurture low-quality ventures by adverse selection, meaning that ventures which have problems finding private investment are encouraged by public money.

Seet et al. (2018) question the training within accelerators and training in entrepreneurship in general. Part of that criticism is that many entrepreneurship educations might teach *about* entrepreneurship and not *for* entrepreneurship. In order to better form such training, both in education and in accelerators, Seet et al. (2018) argue that one needs to understand what part of the teaching is most valuable to start-ups and in that way open the “black box” of entrepreneurship education and training. Their result from studying the activities of an accelerator shows that the three different parts of such training is “know-what”, “know-how” and “know-who”. Teaching entrepreneurial models such as the Business Model Canvas is an example of know-what that the participants found valuable for understanding and developing their business (Seet et al., 2018). Design thinking is another example. The Lean start-up approach was part of know-how that also was appreciated in order to build a minimal viable product and to progress in their operations (Seet et al., 2018). The last part is know-who, and the authors stress this as the most important teaching in entrepreneurship. They argue that social capital is sometimes neglected in its importance for success and the participants found the know-who to be the most valuable part of their training. The know-who education consisted of interaction with potential customers and key stakeholders which increased confident and knowledge (Seet et al., 2018). The subcategories to the know-who were the tutoring from the mentors and the great opportunity to get to know and learn from them (Seet et al., 2018). Besides the mentors, contact with experts in fields where themselves lacked knowledge was very valuable, as well as discussions and collaborations with peers in the same program (Seet

et al., 2018). Seet et al. (2018) conclude that both know-what and know-how are important building bricks in accelerator training, but it is the know-who which ties it together and enhance the whole learning experience.

### **3. Methodology**

*This chapter argues for and presents the chosen methodology through which the research was conducted.*

#### **3.1. Research strategy**

In order to understand the role of the public innovation support for SMEs, it is necessary to closely research what they actually do and how they work, hence a qualitative approach is appropriate. The research aims to deeper understand how Livsmedelsacceleratorn (LIVA) supports SMEs as well as to propose an improved model for expansion of such support, and therefor needs to research the activities in-depth. The topic is rather unexplored and there is very little written on innovation support in the food industry, especially in the context of Sweden, which makes this research exploratory in its nature. Literature on accelerators and intermediaries in general exists, but it is not fully applicable to neither the Swedish food industry nor the public sector. Due to this, the research follows an inductive approach which is in line with what Bryman and Bell (2015) describes as exploratory and aims to generate theory from the data analysis, rather than test theory. The inductive approach is mainly paired with a qualitative research strategy and the focus is not on numbers, but on words (Bryman & Bell, 2015). Even though the qualitative research strategy is mainly inductive, most studies are still based on some earlier theory, which makes a completely inductive study rather rare, and according to Bryman and Bell (2015), the deductive and inductive approaches should be thought of as tendencies instead of hard facts.

#### **3.2. Research design**

This research will be conducted through a single case-study design which is one of the most common ones in business research and aims to deeply understand a single case (Bryman & Bell, 2015). It can either be that it studies a single organization, a single location, a person or a single event (Bryman & Bell, 2015). This research design is suitable as the thesis will study the role of a single organization (LIVA) in helping SMEs which will give deep insights in the way the organization works and what impact it possibly makes. The case-study is a favored design within qualitative research since it fits deep and unstructured interviews well but can also fit

observations and complementary data (Bryman & Bell, 2015). The case-study design often has an ideographic approach, meaning that the sample (the case) is chosen by its specific characteristics or setting (Bryman & Bell, 2015). Case studies are based on the belief that the case will give opportunity to learn and develop deep understanding of the specific case and setting, hence the case should be chosen based on its possibilities in learning (Bryman & Bell, 2015). The case of LIVIA is believed to contribute with new knowledge about the public innovation support in the food sector.

Furthermore, there are different types of case-study designs, such as the critical case, the unique case, the revelatory case, the representative case and the longitudinal case (Bryman & Bell, 2015). For this study, the case mainly falls under the revelatory case in its broader description. One definition of the revelatory case is that it is a chance to study something that before has been inaccessible to scientific research. However, this definition is rather narrow and Bryman and Bell (2015) argues that it does not necessarily have to be that the situation has never been researched before, and the case of this study is earlier not researched close enough.

Qualitative research strategy and case-study design are often criticized for being subjective, meaning that both the collection and the analysis of the data is exposed to the biased mind of the researcher, whilst a quantitative strategy quantifies the data to numbers which are less exposed to subjective analysis (Bryman & Bell, 2015). Another critique against qualitative strategy is the difficulties to replicate the study (Bryman & Bell, 2015). The data is often collected through unstructured methods and the researcher him/herself is the means of collection. This makes it very hard to replicate, resulting in a subjective and unique study. Furthermore, due to the often small and not random sample of deep interviews or observations in the qualitative research it is hard to generalize the findings. Even though all this critique in some ways are legitimate, qualitative research still plays an important role in research and should be chosen if appropriate to the research question. Flyvbjerg (2006) argues for the importance and unique depth which qualitative studies contribute with and further stress that expertise within a field can only be reached through deep case-studies. Numbers and quantitative studies play an important role in grasping the width of different topics, but they cannot explain the complex nature of social settings and context in the way qualitative research can (Flyvbjerg, 2006). His arguments are followed by the explanation of how context-dependent knowledge is the key to gaining expertise and real understanding of complex cases. The question about generalizability regarding a single case-study does not mean that the knowledge gained cannot contribute to the accumulated literature about the topic (Flyvbjerg,

2006). Furthermore, Flyvbjerg (2006) explain that single-case studies do not necessarily have to be inferior to multiple case studies since the data and analysis can be collected and processed in multiple ways.

### **3.2.1. Sampling**

The case-study examines the actions of LIVA, which was chosen mainly to fit the purpose of the study, hence it was sampled through purposive sampling. RISE which is the research organization hosting LIVA has a strong presence in many parts of Sweden as a prominent research institute and operates within many different industries and areas. Connected to the food industry, RISE has divisions covering all parts of the value chain including extraction, hygiene and business development. Due to this width and well-known name, their operations are particularly interesting for this study and the sample fits very well with the purpose of the study. In line with the organization's own interest in expansion and improvement, the possibilities of real practical implications are great. Furthermore, due to the researcher's connections within RISE, it was partly a convenience sample due to the access of such organization which may otherwise be hard to achieve.

## **3.3. Data collection**

### **3.3.1. Primary data collection**

This research was mainly conducted through what Bryman and Bell (2015) refers to "micro-ethnography", which is an alternative to regular ethnography which usually would require that one stay and observe an organization for a long period of time. This thesis has a limited time span which does not make a full ethnographic study possible, however, due to the favorable access to LIVA and RISE, a micro-ethnography was a great alternative. This means that the researcher spent part-time at the organization and observed a specific part of their operations that are of interest for this study, more specifically the part of developing their innovation support LIVA to accelerate SMEs in the Swedish food industry. Ethnography is fieldwork and aims to gather different information compared to the one collected through surveys (Murchison & Ebooks Corporation, 2010). Ethnography is experiencing what you research, which gives a different understanding of the subject and lets the researched study the subject in its true context (Murchison & Ebooks Corporation, 2010). Ethnography is very similar to participant observation, however participant observation has an emphasis on "observation" (Bryman & Bell, 2015), which is not suitable for this study since the researcher wanted to ask questions, have informal interviews and discuss with the people in the organization. Ethnography can be done overt or covert. In this research, the researching role very clear and transparent and the

researcher aimed for participation in the daily activities as far as possible. Collecting data through ethnography included taking field notes of the observations, and during the day mental and jotted notes were taken in order to remember what had been observed. It was not always suitable to take notes in front of the organization's members, however it is important to write down full field notes as soon as possible for the best accuracy (Bryman & Bell, 2015). Ethnography has been criticized for being very hard to replicate and for its subjective matter, very much like the criticism for qualitative research in general (Bryman & Bell, 2015). Some call ethnography a biased methodology while others describe it as a revolutionized way of conducting deep and powerful research (Murchison & Ebooks Corporation, 2010). However, replicability and generalizability were not the aim for this thesis, but instead to achieve deeper knowledge in the subject. One can only become an expert and gain deep understanding through closely studying a subject in its context, and I therefor argue that this thesis has its strength in the thorough participation and understanding of what really is observed.

As a complement to micro-ethnography, the researcher conducted semi-structured interviews with employees within LIVA. Collecting data through more than one method and from more than one source is called triangulation (Bryman & Bell, 2015) and strengthens and improves the validation of the findings since the data is collected in more than one way. I argue that both micro-ethnography and semi-structured interviews are important means of data collection since they can complement what the other method might fail in. For example, a respondent might answer questions about what the organization is doing or how they work to support companies in one way, but the respondent and the organization might in real life do something else. Murchison and Ebooks Corporation (2010) argue that it is a strength of ethnography to study *how actions look like in reality* compared to what respondents answer *how they would act in an ideal situation*, also called decoupling. Sometimes the reason can be that respondents want themselves and the company to look good, but it might just as well be that what they say is their view on the situation. Due to this complexity, just asking questions might give a false indication of how an organization works, and the micro-ethnography allows to see if their description fits with what the researcher observes.

The semi-structured interviews were important in order to get a deeper understanding and to more clearly answer the research question. The semi-structured interviews included an interview guide, with more or less specific questions to ask. However, the interviews were open to deviations from the script and allowed follow-up questions. Semi-structured interviews, compared to completely unstructured interviews, uses its interview guide as a tool to keep the

interview focused on some overarching topics and makes sure that an area of interest is not forgotten during the interview (Bryman & Bell, 2015). However, it is open enough to let the respondent discuss other interesting related topics or questions related to the research area, which would not have been possible during a structured interview. The questions in the interview guide aimed to be as open-ended as possible, in order not subjectively influence the respondent's answers.

### **3.3.2. Secondary data**

In order to answer the research question and to reach the aim of the thesis, it was necessary to collect an historical perspective on innovation support and accelerators. This was done through secondary data collection from academic articles on the subjects. The second research question aims to propose improvements for future public innovation support, hence it is important to compare the empirical results with the literature. The articles were found through Gothenburg University's digital library search function which covers academic literature from a range of different databases. The literature on innovation intermediaries and accelerators in the food industry is scarce and literature on other industries was collected as benchmark, as well as backward search through already existing reference lists was used to find appropriate literature on the topic. Furthermore, definitions and names on concepts regarding innovation, networking, intermediaries and business acceleration are rather vague and overlapping and it was therefore a very extensive and time-consuming search to conduct in order to find appropriate literature.

Furthermore, the food industry has its own characteristics and it is of great importance to understand the challenges and driving forces of the industry in order to evaluate and create new practical implications. By researching public reports about the industry as well as company reports from RISE and LIVIA, this type of secondary data was collected and enhanced the understanding of the topic and plays an important role in the further investigation of the innovation support in the Swedish food industry.

### **3.4. Practicalities**

The data was collected during approximately three-and-a-half-month period and the researcher was present and observing/participating three to four days per week. The first week of study functioned as an introduction week where the researcher got acquainted with everyone at the office and the different areas in which they operated to build trust with the people. Building trust is a very important aspect of data collection as it minimizes the impact of the researcher on the data and to get an accurate picture of what one studies. The employees are objects for observation which could influence them to act differently if they feel judged. In order to impact



the observation as little as possible, the researcher aimed for participation rather than observation and to be “one of them” to make them feel less observed.

After the first week, the data collection begun and *Table 1* below shows a schedule on what different type of activities the researcher participated in. It was natural that the researcher was invited to the meetings and events that regarded the research and the researcher expressed interest in participating. In addition to those activities, informal chats and interviews were held regularly both with employees in LIVA, RISE and with companies that the researcher met. These informal interviews could occur during lunch or at coffee breaks and were very relaxed. The informal chats with the companies were important to get their view on what value they got from LIVA.

<b>Activity</b>	<b>Number of times researcher participated</b>
Internal LIVA meetings	4
Meeting with individual SME	4
Event arranged by LIVA	5
Meeting with possible expansion region	1
Meeting with SAMLA	2
Meeting with Investors	2
Informal interviews with employees, industry actors and companies	> 30

*Table 1, Ethnography activities*

*Table 2* gives an overview of the two semi-structured interviews conducted. The interviews were held in a quiet and comfortable space which allowed the participants to express one’s thoughts and made it easy to record. The interviews were held in Swedish, the respondents’ native language, for their comfort and to make it easy for them to express themselves. The participants were informed of the purpose and how the information from the interview will be used and consent for recording was asked.

Respondent	Title	Date	Duration	Channel
Respondent 1	Business developer	2019-04-04	35 min	Face-to-face
Respondent 2	Business developer	2019-04-09	45 min	Face-to-face

Table 2, semi-structured interviews

### 3.5. Data analysis

As Bryman and Bell (2015) argues, the analysis of a case-study can be either on individuals, on groups, on organizations or on societies. The unit of analysis in this case-study will be from the perspective of the organization, since it is of interest of what the *organization* (LIVA) as a supporter does for SMEs and not the employees per se. The analysis of the data was done through thematic analysis, meaning that the researcher searches for themes or patterns in the data to answer the research question. Thematic analysis is one of the most commonly used tools for analyzing data in qualitative research and similar to grounded theory (Bryman & Bell, 2015). Thematic analysis puts great emphasis on coding (Bryman & Bell, 2015; Clarke & Braun, 2017) which later are transformed into themes which are guided by the research question (Clarke & Braun, 2017). Thematic analysis is beneficial since it allows for great flexibility in both means of collecting data, the research question and analyzing experiences (Clarke & Braun, 2017) and is thus particularly appropriate for this thesis. The researcher is active when searching for patterns in the data and the analysis is emerging through an organic approach (Clarke & Braun, 2017).

#### 3.5.1. Transcriptions and coding

The audio recorded material from the two semi-structured interviews were later transcribed verbatim in order to code and analyze the material. The recordings were listened to two times to assure accuracy and transcribed in Swedish to prevent any important information to get lost in translation. Coding was done close in time to the data collection to better grasp the context and in order to have a fresh mind of what was said and observed. The researcher took notes from the micro-ethnography every day in order to not lose any information to the memory. The notes were thorough and described actions, conversations and emotions. These notes were later coded in the same way as the two semi-structured interviews into a collective understanding of the subject.

The codes were reviewed many times in relation to the data to secure its appropriateness as well as to complement and compare with new data which had been collected. The data was coded in

three steps. Soon after the collection of data the researcher started to conceptualize and organize the data into smaller parts, or first order codes. The first order codes were later categorized together into second order codes. The third order codes represent the overall *themes* of the research. While coding, the researcher looked for frequency, similarities, differences, patterns and causations in the data. Important to note is that frequency does not necessarily imply greater importance (Bryman & Bell, 2015). The codes and themes were later analyzed in relation to the literature to find similarities or differences between the empirics.

### **3.6. Validity and reliability**

Qualitative research constantly tackles the issue of validity and reliability due to its subjectivity and being context-bounded. As Bryman and Bell (2015) argues, evaluation of validity and reliability is not completely applicable to qualitative research and should perhaps not be used in the same way as in quantitative research due to their very different natures. Even so, this study was conducted with the aspirations to create as high validity and reliability as possible.

Even though the validity may be very hard to measure, there are actions to take in order to gain as strong validity as possible for both the data and the analysis. The data collected through the micro-ethnography and from the interviews were confirmed by the participants which strengthens the validity in terms of securing that the researcher did not collect faulty data. The same process was done with the analysis of the data which was shared with the participants in order to check for some misinterpretations or subjective analysis. The data which was collected through micro-ethnography is further strengthened by the fact that the same data occurred repeatedly through the daily activities which minimize the risk of faulty data collection of a single event. This type of confirmation through triangulation between micro-ethnography, interviews and confirmation with participants strengthens the validity of the results. The findings and observations on some aspects that could be improved were also validated by the companies and start-ups which the researcher had informal interviews with. The quality assessment of LIVA's operations are hence not only the subjective idea of the researcher, but are based on real findings from the companies as well.

Reliability is a weaker point in qualitative research due to the difficulties in replicating the research, and this study is no exception. However, the aim was not to conduct a generalizable nor replicable study, but to gain deep knowledge and close observation of the organization. The foundation of ethnography is that researcher him/herself collect the data in person and the results may differ based on the person. In order to increase the reliability, transparency in the

means of data collection and the interview guide is necessary and described in close detail for possible future replication.

### **3.6. Delimitations**

The food industry is one of Sweden's largest industries, which makes it a rather extensive topic to research. However, the way this research has delimited itself is in line with LIVA's own limitations of what companies they operate with. Companies within the agricultural sector operating on a very local and small scale are not included in this research since it is an ecosystem of its own and there are other public support programs covering them. Furthermore, the end-retailers are neither part of the study, partly because they are few and big representatives, but mostly because they are different part of the industry with its own rules to play by. The easiest way to summarize the majority of food companies which LIVA operates with is that they are food producing companies. Furthermore, the research is limited to study the activities of only one organization, LIVA. This delimitation was chosen due to time restriction but also to create an in-depth study and to truly understand the role of LIVA.

### **3.7. Methodological reflections**

The exclusive and favorable access to LIVA's and RISE's daily activities is argued to be the strength of this thesis since it allowed for data to be collected during a longer period of time compared to only conducting interviews. Such access is desirable since the researcher truly becomes a part of the operations and get an almost complete, albeit somewhat subjective picture of the activities. The possibility to constantly complement existing data with new findings also create a very deep case-study. The involvement in the data collection strengthens the true picture of what is observed and the different means of data collection complements each other's flaws.

The research has however not been without challenges since the food industry was new to the researcher and one can argue that it is both in favor or in disfavor to the research. In some aspects, deeper knowledge of the food industry would have been helpful to faster understand the driving forces and characteristics of the industry. However, looking at the phenomenon with new eyes is also positive in terms of seeing patterns or structures which people who are a part of it might be blind to. Either way, the researcher got more knowledgeable about the industry as the research went on, hence gained an understanding of both perspectives.

One could argue that an observer always influences the object he or she observes, but this study does not research a sensitive topic or people's behavior, which makes it a non-issue. It explains

activities and structures. The research is context specific and not applicable to other industries or to the private sector. However, the aim of the thesis was not to generalize the results, but to investigate this specific case of a big actor in the region of Västra Götaland and the possibilities of its expansion.

## **4. Empirical findings and analysis**

*In this section, the empirical findings from the research will be presented and simultaneously analyzed through a thematic approach where the empirical results were formed into themes and further analyzed in relation to previous literature presented in the literature review. The data is a result from micro-ethnography, reports and semi-structured interviews. First, in section 4.1 and 4.2 an overview of the empirics and Livsmedelsacceleratorn's (LIVA) general operations and activities are presented in order to understand its innovation support role in order to later in section 4.3 be more deeply discussed and analyzed. Due to the complex nature of qualitative studies, it is sometimes hard to separate findings from the analysis and the two sections are therefore merged to easier grasp all the different parts of the organization. One should approach this section as a joint presentation and analysis of the empirics.*

### **4.1. Overview of LIVA**

Livsmedelsacceleratorn (LIVA) describe themselves as a matchmaker between the necessary resources for companies' development and small and medium sized companies (SMEs) in the food industry. Their operations are funded by Tillväxtverket, the region of Västra Götaland and The European Union, but are hosted by the research institutes of Sweden, RISE. Even though the department for innovation and business development within RISE is hosting and performing the operations, they claim to be impartial and unbiased in terms of to whom they refer companies. LIVA is run by three employees dedicated to help companies in the food industry, but the other employees in the same department are often involved in some of the events and meetings. The employees have different backgrounds in business, bio-technology and microbiology. Despite what the name entails, LIVA has no classic time-restricted accelerator programs for companies. The observations from the research show that it is sometimes disappointing to hear for companies, but that some also think it is positive since they would not have time for such long and dedicated program. LIVA themselves describe their work to have an umbrella perspective on the companies and stress the importance of seeing the whole company's need and not focusing on only some aspects. They target SMEs in the Västra

Götaland region (VGR) of Sweden, but say that they put extra effort in companies which have growth ambition and potential. There are approximately 350 SMEs in the region and the majority of them are small. Since LIVA's start in 2014, they have met with 219 unique food companies in the region. LIVA is run in form of a project with a financial cycle of three years. Year 2019 is the ending of its second three-year cycle and is about to seek new financing. Each round has specific targets to reach which are presented by the investors. All of their meetings and events are free of charge for the companies since it has already been paid for by the earlier presented financiers. LIVA is supposed to hold a specific number of seminars, workshops and individual meetings with companies per year. Furthermore, their activities should lead to at least ten development projects within companies or between a company and another actor. The employees of LIVA described how they measure their operations, and they do so by measuring the number of meetings and activities they perform per year.

#### 4.2. LIVA's activities

*This section will take a closer look at what activities LIVA perform to help SMEs in the region. The different activities they perform during one year is presented below in the Table 3 to easier visualize it and is later shortly explained in the text below.*

Activity	Frequency	Target-group
Individual meetings with SMEs for evaluation of needs	60 times/year	SMEs
Business model canvas workshop	2 times /year	SMEs
Special topic seminar or workshop	5 times/year	SMEs
Food Venture Sweden	1 time/year	Start-ups, big companies and investors
Pitch training	1 time/year	Start-ups participating in Food Venture Sweden
Update SAMLA Sverige	1 time/month	Innovation supporters

*Table 3, Activities of LIVA*

##### 4.2.1. Individual meetings with SMEs

As seen in *Table 3*, the individual meetings with SMEs stands for the majority of LIVA's operations and is the main activity they perform. The network is built around the companies they meet with and the business developers either invite them to RISE or visit the companies. In order to reach the requirement of 60 meetings per year, reaching out to companies through

calls and emails is also a big part of the activities. Start-ups usually find LIVA themselves through the internet, but some bigger companies do not know that LIVA exists and are therefore contacted and offered help. During the meetings, one of LIVA's business developers meet with the founder of a company and discuss their business and what possible needs they have which LIVA might be able to help with. The meetings are typically 90 minutes long and the meetings are what they call "evaluation of the company's needs". These meetings are usually the first real contact with the companies and an initial start of a longer relationship. By discussing the firms challenges and struggles, some needs are usually identified which could be everything from funding to food hygiene issues. After identifying the needs, LIVA's business developer scans his or her network in order to find possible competence or recourses to matchmake with the company. Sometimes the companies just need some general advice and this can be given to them during the meeting. However, most of the times, the solution to the need lays outside of LIVA's internal competence and they thus refer the company to the right people or recourses. Actors who they matchmake the companies with are other companies, researchers, investors, consultants and suppliers.

The researcher attended four individual meetings between LIVA and companies and they were all different. Since the meetings are free of charge, the meetings start with a presentation of the financiers of LIVA and an introduction to the different areas where LIVA could support companies. One meeting was with an entrepreneur who only had an idea of what he wanted to do and had not made a business plan nor had he started up anything. He was very much in the idea development phase. The meeting was short since LIVA could not help him due to the early stage he was in. The entrepreneur was referred to another public innovation support in the region which handles people with early ideas. The second meeting was with the founder of an established business within marine food who wanted to increase their offering with other products on the market. The founder had many ideas and visions and wanted to discuss them with LIVA's business developers. The meeting was pleasant and the business developer pushed him to choose one way to go and to focus on that. He was also advised to attend the Business Model Canvas workshop held by LIVA. They also discussed LIVA's operations during the meeting and the founder expressed that he liked the fact that LIVA had no acceleration program since he often was short on time for such things. The third meeting was also with the founder of an established business within food nutrition and she was interested in discussing issues regarding exporting her products, funding and hygiene issues in the production. LIVA's business developer connected her with competence within such production processes as well as

people who are competent within exporting issues. The business developer also recommended a few funding checks available from VGR which might be suitable for her business. The fourth individual meeting was with a business owner who needed help with applying for research and development (R&D) funding provided by VGR. The founder of the company considered the application to be very complicated and needed guidance. In addition, the company was referred to another actor in the industry which might be compatible with their business regarding resources and material.

#### **4.2.2 Business model canvas workshop**

The business model canvas (BMC) workshop is held twice a year by LIVA together with another innovation support actor in the region called Connect Sverige. The advisors from Connect Sverige are leading the workshop which usually consists of 10-20 participants from different companies. In the beginning, the two support actors both held BMC workshops for companies but separately, but then decided to do it together. One restriction from the financiers regarding LIVA's operations is that they cannot be a competitor towards another actors, so these days LIVA and Connect hold the workshop together. They describe this event to be open for everyone to apply for, but mainly targets companies which have come some way in their business. The manager of LIVA describes the event as being very much appreciated and that the participants share important insight with each other during the workshop. The workshop teaches the companies how to navigate in the classic business model canvas-model, and the participants have discussions with each other.

#### **4.2.3. Special topic seminars or workshops**

The special topic seminars have a certain topic in focus chosen for the occasion. The topic is either decided by LIVA based on their screening of what companies request, or decided by the financiers based on what they believe companies should learn more about. LIVA receives funding to host about 5 seminars per year, more specifically 1-2 innovation seminars and 3 competence building seminars or networking events. The different topics so far have concerned for example funding, labeling, packaging and digitalization. LIVA also argue that networking is a very important aspect of the seminars since companies can interact and make new contacts. The seminars are open for all food SMEs in the region to attend.

#### **4.2.4. Food Venture Sweden**

Food Venture Sweden is a two-day long annual event hosted by LIVA and RISE which invites promising start-ups together with investors and big companies in the food industry. It is a match-making event which aims to connect smaller companies with big players or investors in



hope for innovation through collaboration. The event also invites speakers and researchers which hold presentations during the day and the small companies each do a pitch in front of the investors and the big companies. The small companies also have the chance to book one-to-one meetings with the investors and industry players for further discussions about possible collaborations and deals. LIVA does not intervene in these discussions but create the forum for them to happen. The event also includes inspiring seminars about topics concerning the food industry.

LIVA believes this is a great forum for new innovation to emerge between actors which naturally would not meet otherwise. They also describe it as a good chance for the smaller companies to advertise themselves in front of investors. Food Venture Sweden is an exclusive event and the 30 participating small companies are chosen and accepted based on their innovativeness and potential. Compared to other events arranged by LIVA, Food Venture Sweden is not a regional event per se but targets all of Sweden. The researcher attended the event and anywhere you looked, interesting and eager conversations seemed to happen. Earlier success cases include a company which got in contact with investors through an individual meeting at Food Venture Sweden and eventually received funding and coaching. The company is now very successful and rapidly growing.

#### **4.2.5. Pitch training**

In order for the small companies to prepare themselves for Food Venture Sweden, they are invited to a pitch training event. Each company gets the chance to pitch for five minutes with instant feedback afterwards from a panel of industry experts. The companies were all on very different quality levels and the feedback was adjusted accordingly. Except for feedback from the experts, the small companies were also offered individual coaching with LIVA's business developers to improve their pitch even more. The companies expressed very positive emotions for the event and said they were grateful for the feedback.

#### **4.2.6 Update SAMLA Sverige**

SAMLA Sverige is a network of innovation supporters in the Swedish food industry and is meant to gather all supporter organizations into one big network to facilitate the collaboration between them. They have skype-meetings once a month and have longer conferences twice a year where the supporters update each other on what activities they are currently perform and discuss issues or news in the food industry. It is way for each supporter to become aware on what is happening in other parts of Sweden and in other initiatives and projects. The aim of

SAMLA Sverige is to strengthen the collaboration between innovation supporters and together tackle and come up with solutions to common issues. During the meetings where the researcher attended, they shared updates on different food clusters in Sweden, events, news and new funding available for companies by the state.

### 4.3 The role of LIVIA

The following sections is divided into five themes which were identified during the thematic analysis. The five themes can be viewed in Figure 2 below and represent the role of LIVIA and refers back to the research question. The themes are a result of deep analysis of the collected data from both micro-ethnography and semi-structured interviews and codes were merged into themes which explains the role of public innovation support in the food industry.

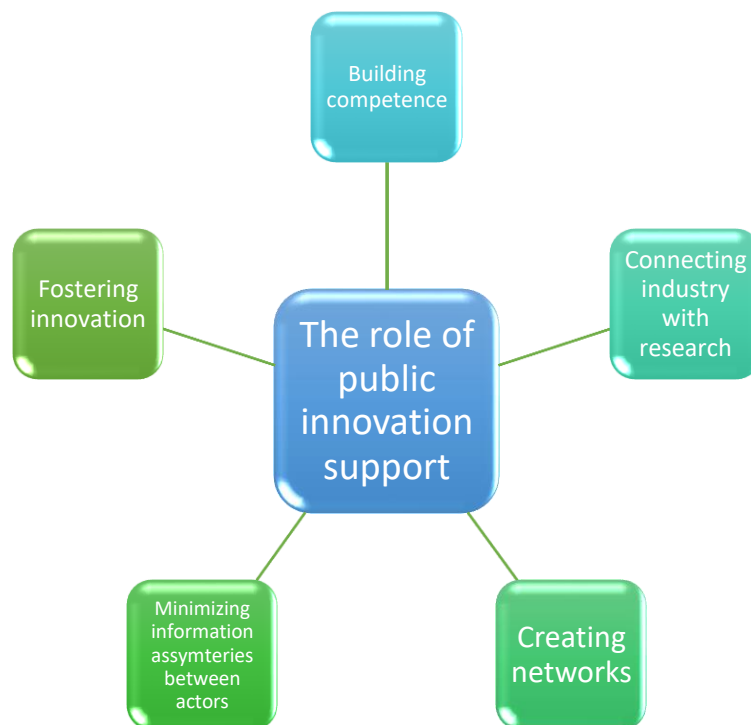


Figure 2, The role of public innovation support

#### 4.3.1. Building competence

One big part of LIVIA's role towards SMEs is to help companies build new and stronger competencies in order to develop their businesses. Competence building is a recurrent theme in all of LIVIA's activities and aim to strengthen the companies internally. The most prominent activities where LIVIA build competence is through seminars and workshops. The food sector is complicated and requires expertise in many areas and full knowledge about regulation

regarding food safety, waste management and hygiene issues. As Respondent 2 explains, this can be overwhelming for people with no previous knowledge of the industry:

*“A large amount of the entrepreneurs we meet have no background in food and they are completely chocked over the regulations and there are a lot of rules and requirements. So there’s a lot of startups in the food sector which, especially when it comes to consumer goods, falls flat since it’s so complicated.”*

-Respondent 2 (Author’s translation)

Due to the complicated characteristics of the sector, Respondent 2 further stress the importance for companies in the food industry to have a contact such as LIVA which knows the rules of the game and can help them either to overcome their challenges, or to help them fail fast. Building competence includes understanding of how the sector works and to understand what challenges one must face in order for the consumer goods to be accepted, and when some companies realize that they back out. One activity through which LIVA builds competence is in their special topic seminars. Since they are created based on an identified common problem or challenge of the companies, the seminars are relevant and specialized for the industry. One of the seminars which the researcher attended was a digital seminar about R&D funding handed out by VGR. LIVA sensed a need for funding amongst companies and many are in need of development projects to accelerate their business. The application for public money is perceived by many companies as very complicated and scary and the business developer of LIVA explains this as the main reason for why companies do not apply. Another seminar handled the issue of labeling regulations on food packages and controversial health claims. It was perceived that many companies were struggling with what is allowed to write on the food products in regards to health claims and similar. A panel of experts were invited to discuss the issue and to raise the skills of the companies in the audience. A third seminar which the researcher attended handled the issue of sustainable packaging. Experts in the field presented facts and statistics about packaging and the seminar included a small workshop in customer’s perception of sustainable packaging. The seminars may not have a natural connection to the idea of what an accelerator or intermediary do. However, the competence building done through these seminars can be compared to what Goswami et al. (2018) describes as formal training scripts in accelerators, where the participants are educated about entrepreneurship or a certain topic. The training in an accelerator as described in the literature is mostly business-related training and includes aspects of how to start and run a business, funding and so forth. The competence building in the seminars by LIVA are however mostly industry focused and teaches other things

than only business knowledge. For the seminars in particular, the linkage between accelerators and intermediaries is weaker than in other aspects of their operations.

Regarding the general competence in SMEs in relation to topics such as digitalization and new ways of marketing, both Respondent 1 and Respondent 2 mentioned that the food industry is lagging behind and Respondent 1 explained that one reason is the dominance of older generations in the sector. In those cases, special topics seminars raise the general basic knowledge to a bit more advanced, but still low level.

*We do it [competence building] through seminars and then it's sort of that we have a request from the financiers to develop the companies through digitalization and then we might have a seminar and speak more generally about digitalization and why it's good and some of the speakers are consultants which the companies can contact for help. But it's kind of that you raise a very basic level of competence, so the seminars are made for maybe raising a pretty low lowest level to a higher lowest level where they can feel comfortable with starting a development activity by themselves internally at the company.*

-Respondent 2 (Author's translation)

Judging from that quote, it seems like some of the seminars do not help the companies with expertise and deep knowledge, but are meant for those who have very little knowledge to begin with. Even though the food industry in many ways is low-technological, it is certainly knowledge-intensive and it requires a broad and deep knowledge of processes, substances and regulations. It is definitely not as simple as many might think at first. Even so, the knowledge regarding technology and digital marketing is lacking in the older generations and LIVA acts as distributor of new knowledge in those areas. The question is whether it is effective to give so much time and effort to companies who may not be that willing or open to change anyways, such as the older generations. For a public innovation support to say that they raise the very low knowledge level to just a basic low knowledge level sounds rather insufficient. Perhaps these events need to exist to develop the food industry, but should a food accelerator such as LIVA be the one to do it? I believe that it might be more appropriate to focus time and resources towards more with more specialized knowledge in order to accelerate them, or instead of calling it a competence building seminar to call it an inspiration seminar.

Another activity which the employees of LIVA explains as competence building are their BMC workshops held twice a year. The workshop focuses on the business model and value

proposition in order to give the companies new insights and knowledge of their business model and new ways to create value for their customers. The BMC is mentioned in the accelerator literature as a part of the entrepreneurial education which participants are taught. Seet et al. (2018) describes the BMC as the “know-what” of business training, learning what you do. Even so, the instant question that pops up is: how does this help companies to grow? It is indeed very important for companies to know their business model, but is that not a given? I am hesitant to this activity since it seems so banal for scale-up companies to learn how the BMC works, if they do not know it already, maybe that is a job for someone else to teach them. When asked what she thought about LIVA meeting very early start-ups, Respondent 1 answered:

*“There are split opinions since I think it actually do exist much better recourses who work more towards start-ups where they could receive help, for people who are like: ‘should I have a liable firm?’. That’s not where we should be. For me personally as a microbiologist in food, I’m really happy that they meet people who know food from the beginning and not just business modelling. [...] It is tricky...because in pure business terms, no, not good that they meet with LIVA. We should not focus on them [start-ups].”*

-Respondent 1 (Author’s translation)

I believe this together with the seminars are examples of where LIVA, and public support in general, needs to ask themselves who are they trying to help and what do they want to achieve? It again comes back to the question of public money, which many times describes as “dumb” public money which funds unsuccessful companies to survive a little longer. This relates very much to what Brown et al. (2019) wrote about public accelerators and the sometimes-occurring problem of adverse selection where public money funds low-quality firms. I believe that when discussing public money, it is important to choose which way to go, should the money be open for all who wants it without any requirements, or should some chosen companies share the pie. It becomes a political question of course, but one way might be more suitable for one organization. In the specific case of LIVA, I do believe that their operations would be in favor of some stricter requirements of who they are trying to help. After all, like the employees of LIVA themselves also describes, there already exist many other public and private actors accepting very early start-ups with little knowledge of how to start a business and how to make a business plan. This may not be the right focus for LIVA who claims that they focus on growing SMEs. One can see some decoupling in their policy and their true actions in this example. Their own description of their purpose is to help companies grow, while the BMC workshop focus

on something else. The employees of LIVA discussed after the latest BMC workshop that the one company who seemed to have gotten the most out of it was in a very early stage in his business, and could therefore learn a lot from the workshop. The other participants knew their business quite well and could maybe have benefitted from some more advanced business modeling. Just like Goswami et al. (2018) noticed in their research, basic business modelling may be too simple for companies which have come some way in their journey, and perhaps accelerators should focus on what their name implies- accelerating businesses. The earliest companies might fit better in an incubator's business modeling class, and accelerators can move on to more advanced business strategies.

The pitch training event described earlier in this chapter is instead an example of what I argue is a great competence building activity with the right focus on strengthening high-potential companies with deeper skills which are very relevant to their growth. As Pauwels et al. (2016) write, some of the core activities of accelerators include mentoring and training. The ability to present a strong pitch in front of investors and potential partners is of course very important and can open up for new possibilities in the business journey, and the companies were very thrilled over the guidance in this area. Perhaps a general pitch-training session would be a good workshop to hold, not only related to Food Venture Sweden. In addition, the finance seminar presented earlier explaining how to apply for specific funding from VGR is also much more specified and directed towards companies in the development and growth phase, and I therefore argue that it is those focused seminars which LIVA should engage in.

#### **4.3.2. Connecting industry with research**

Perhaps the biggest strength of LIVA is their geographical proximity to the research institute RISE. The step to connect a firm with a scientist is not far and constitutes a big part of LIVA's activities and important role towards the food companies. The knowledge-intensity in the food industry requires expertise which many times lay outside of the companies' internal competencies, which in turn motivates them to search for external help. This is where LIVA becomes a huge asset for growing SMEs since they help with matchmaking and connecting scientist with firms in the food industry. In fact, I argue that this is the most important and unique role of LIVA and they should focus more on these connections. The connection often happens during the individual meetings where LIVA's employees evaluate the firm's needs and try to find appropriate solutions. Except for funding, one of the most common needs of the firms are specialized competence, they simply lack a specific competence internally in order to grow or to test a new product or process. It is very complicated, time consuming and costly for the

firms to find the right competence themselves compared to LIVA doing it for them. Since LIVA has a huge network of companies, support actors, scientists and universities they can help the companies find the right person to talk too much easier and faster. Mian et al. (2016) describes this as an important activity of accelerators, to minimize that effort. Yang et al. (2008) further explain how this linking between actors is cost-minimizing for the companies, and the employees of LIVA confirmed that they believe it is important to help companies with scarce resources to find the right actors. By connecting companies to research, it also builds new competence internally and Respondent 1 stresses her opinion of its importance:

*“We function as this middleman and have matchmaking with different companies, so to me, to make a company grow is to increase their knowledge bank. You increase the possibilities for the company to make good products.”*

-Respondent 1 (Author’s translation)

In order to be able to matchmake between many different actors, the business developers of LIVA must constantly update and widen their network of important people and actors. It is through LIVA’s network they are able to help the companies they meet, and the individual meetings are in turn a part of the development of their network. One way through which LIVA stays updated and keep their network and knowledge fresh is through the network SAMLA Sverige described earlier. It is not only important to know other companies and researchers, but also to be aware of other innovation supporters. As I have seen for myself during this research, and as the employees of LIVA confirm, there is a jungle out there of different support actors trying to help companies. Therefore, it is important to be aware of each other’s operations in order to better matchmake between the different actors in order to best help the companies. As presented in the problem discussion, the food strategy report by Ministry of Enterprise and innovation (2017) present one of the biggest challenges of the food industry to be the lack of collaboration between actors, and SAMLA Sverige is therefore an important project in the industry. It is fairly new and I believe improvements can be made on how to keep each other updated, but it is a good start on greater collaborations and coherence between supporters. It may not affect companies directly, but indirectly it will create bigger effects and more efficient help and support towards the companies in their growth. Furthermore, it will ease the search for the companies and will faster lead them to the right support without so many steps.

Since LIVA’s operations are hosted by RISE and are located in the same building, the business developers describe it as natural that many of the companies are paired with competence within

RISE. The building in which LIVA is placed is focused on the food and agricultural industry and the researchers there have good competences which food companies often need. For example, they have experts in the fields of food processing, microbiology and hygiene, sustainable food chains and product design.

*“[The most important activity] is to be there as a natural bridge between academia and the research world and the industry. Because I witness a pretty big gap there and many who work in the industry are often like ‘oh no how scary it is with science and how scary it is with academia’ but it is in fact there where the knowledge exists. So to be there as a natural bridge for the companies to access this research and better knowledge...that I believe is extremely important. “*

-Respondent 1 (Author’s translation)

The quote of Respondent 1 gives the impression that the firms in the industry are not very connected to research and science by themselves, but need a third party to introduce the two sectors to each other. In this case, one can draw strong parallels with the literature explaining how an innovation intermediary connects different actors through matchmaking. LIVA falls under many of the different definitions of intermediaries that Yang et al. (2008) and Katzy et al. (2013) present such as being the communicating actor, scanning and absorbing knowledge and later distributing it. LIVA scans and absorbs knowledge by being a part of a research institute and new science and research. The employees also actively participate in seminars, read new publications, network and engage in such simple activities as having lunch with scientist in the same building. This creates great awareness of what is happening in research and can thus distribute some of the knowledge to the industry, either through the personal meetings, seminars or through matchmaking by connecting firms with the right person or organization. Katzy et al. (2013) describes that finding the right actors to matchmake with is a very important competence that innovation intermediaries should have.

*“So by being out there listening to many different seminars and such, or we sit here in the RISE-building, we know what’s going on. So you know where to send those companies. And you need to be a good listener like ‘ah that’s what you want, well then I know a researcher who can help you with this’. In that way we kind of know our network, what researcher in Sweden knows this. Because I think that’s very hard for companies to find themselves.”*

-Respondent 1 (Author’s translation)



In line with Katzy et al.'s (2013) research, LIVA takes an active intermediary role and engage in further activities than just transferring names. They have deep interest and knowledge in the different actors and try to create a win-win situation for all involved and thus influence the collaboration process. The employees of LIVA have expressed a plan to engage in collaboration more extensively than today, and I believe that is wise. One example of that could be to participate in collaborations or deals as a coach or advisor during the process and that could possibly create even greater success. Like Katzy et al. (2013) argues, the successful cases are those where the intermediary actively partake and influence the innovation and collaboration process and create value for both parts. Based on the findings in this thesis, I argue that LIVA do actively participate and have a great role as an intermediary, but also that the engagement could be increased.

Important to note when discussing this dominating role of LIVA, is the choice of word *research* and not *science* or *academia*. According to Respondent 1, Respondent 2 and other employees of RISE, the access to academia as in Universities is complicated and many times not appropriate for the industry. A University mainly conducts basic research which aims to generate new scientific discoveries based on curiosity. A research institute on the other hand, conducts more applied research closer related to the industry and in turn closer to SMEs. Betz et al. (2016) also stressed the difference when discussing the Fraunhofer research institute in Germany as the directly influential part in relation to the industry, compared to the Max Planck institute conducting basic research. At first, I was confused over the seemingly non-existing connection between LIVA and academia, but later understood why. According to Respondent 1 and Respondent 2, academia rarely accepts missions from companies since such missions are considered too small or too short term. University research often stretches over several years and that time span is completely irrelevant to a company which needs quick and cheap results. Both respondents claim that LIVA has a close relationship with different universities, such as Chalmers university in Gothenburg, but that it rarely leads to any concrete deals with firms. So LIVA's intermediary role cannot be described to be between the industry and academia, but between industry and research. Furthermore, based on this explanation, maybe it is not a desirable thing either to link the firms with academia since it does not seem like a good match.

### **4.3.3. Creating networks**

LIVA creates networks by connecting and matchmaking different actors with each other, mostly through the individual meetings where a need is identified and appropriate partners are contacted. In addition, the Business Model Canvas workshops also entails networking since the

participants discuss and help each other out with solutions and exchange ideas. During the special topic seminars, the employees of LIVA also explained how they intentionally schedule many coffee breaks to create the opportunity for the different participants to mingle with each other. It is sometimes like the chance to meet peers in the industry is more important than the content of the event. One participant during a mingle described the situation like this:

*“It is nice to get the chance to mingle with other entrepreneurs, I recognize most of the people here today from previous events. The food industry is pretty small so it’s important to be a part of the network. That’s why I attend most of these events.”*

-Seminar participant (Author’s translation)

Respondent 2 further answered what potential benefits she believes the participants exchange when mingling at events:

*They think it is fun to meet other in the same industry for social reasons, but then I think they have common thoughts. It can be like common logistics challenges where they can find solutions together and some probably do business together. Most of all, I believe it is that you get each other’s networks. [...] An ice cream man might be very good at ice cream, but have no clue about fresh fruit. But maybe he needs to know that if he wants to make an ice cream with fresh fruit in it. Then the contacts are very important.*

-Respondent 2 (Author’s translation)

A big determinant for companies to grow and for innovation to spur is in fact networks. Seet et al. (2018) argues that creating networks for companies is the most important function as an accelerator and knowing the right people is vital for a company’s growth. LIVA does for sure create networks, and I believe this is a very important function that could be improved through more networking meetings. Public innovation support should engage in network-creating activities to help companies and industries, and to judge from the research, both the employees of LIVA and the participating companies agrees. One can draw strong parallels with the literature on accelerators regarding the way public innovation helps creating networks. For companies to create their own network without any natural setting would be very hard, and like Hochberg (2016) describes the offering of accelerators in general, LIVA’s offering also includes the access to a huge network.

Pauwels et al. (2016) described three different types of accelerators and their purpose, and the way LIVA creates networks could fall under at least one of them. Since the definitions of

accelerators in general, and public accelerators in particular, are very vague, LIVA have characteristics of many different descriptions. The “ecosystem builder” accelerator connects start-ups with investors and customers (Pauwels et al., 2016), and the Food Venture Sweden event fits that definition very well. Even though it is not started by a corporate organization per se but LIVA, it still aims to create an ecosystem or environment where innovation can spur and new networks be built. The ecosystem building accelerator which are started by corporations intend to connect big and small actors in new collaborations, very much like Food Venture Sweden. The one-to-one meetings during Food Venture Sweden started as a way for big and small actors to closer talk and find potential collaborations or deals, and successful cases has been the result. Inevitably, this also have close links to the intermediary literature since the event acts as an intermediary platform. Yang et al. (2008) and Katzy et al. (2013) describe intermediary platforms as places where an intermediary moderates patent deals or R&D deals, exclusively focused on high-technology. Since the food industry is low-technological and other type of deals are made than just patent deals, the literature does not apply to the food industry word by word. However, I argue that it is a very close explanation of what innovation support in the food industry is doing, since the principle is the same. At Food Venture Sweden, LIVA actively function as a broker or deal-maker by moderating the activities and engaging in collaborations. Katzy et al. (2013) also state that successful intermediation means that value is created for both matched actors, and the meetings between big and small actors at Food Venture Sweden are meant to do exactly that. Furthermore, Katzy et al. (2013) mentions public initiatives in a pretty negative way and describes them as less competent and inferior to private initiatives. I do agree that public initiatives sometimes might have a less focused approach than private ones, but I do not agree that public innovation support lack engagement or competence in matchmaking and complicated intermediation. LIVA with its big network and expertise of the employees is very qualified for making competent matchmaking. This comparison with a deal-maker also links to the way LIVA connects the research with the industry, described in the previous sections, since deals between researchers and firms in the industry sometimes happen thanks to the matchmaking done based on the problem identification from LIVA. The same goes for “deals” between investors and companies where LIVA has actively pushed and coached a company to apply for a certain funding. This intermediation function is intertwined in all of LIVA’s activities and shows great importance.

Furthermore, the Food Venture Sweden event and the pitch training day resembles the “demo-day” often linked to accelerators. The demo day is the final step of an accelerator program for

which the companies have been prepared to pitch in front of investors in hope of collaboration or investment (Cohen & Hochberg, 2014; Hochberg, 2016) and one can see that it is in line with Food Venture Sweden's activities and its exclusiveness. Even though LIVA does not have a traditional accelerator program per se, this activity shows that they have the knowledge and skills to perform similar events specifically designed for the food industry. Food Venture Sweden is a great example of a focused activity through which LIVA creates real impact and networks and I strongly argue that they should continue creating similar activities with a strong focus and goal.

#### **4.3.4. Minimizing information asymmetries between actors**

This theme is perhaps not the most prominent one, but nonetheless important. The research showed results describing the difficulties companies in the food industry face in their search of funding. According to the employees of LIVA, the biggest need identified in a meeting with a company is funding. The companies want money but do not know how to find it or attract it. Some companies even argue that "there is no money out there". What is interesting about this is the opinion of the other side of the coin, the regional public investors. They express a desire for more companies to apply for funding, meaning they have a lot of funding to give but too few companies who apply. Clearly, some information asymmetries exist and the communication does not seem to reach or speak to the food companies. The food companies explained how they find the funding application very intimidating and complicated, which in turn scares them away from even applying. Some of the public funding in the region also require the companies to co-finance half the sum of what they are granted. This requirement also hinders companies to apply.

In order to minimize these information asymmetries, LIVA created a special topic seminar dedicated to the issue of applying for public funding. The seminar taught them how to apply and common mistakes to avoid. LIVA aimed to make the application less foreign and easy to understand. The companies were very pleased with the seminar and said that it helped them. LIVA also met companies in private meetings to help them with their application. Looking at it from the perspective of the financiers, VGR express a confusion in why so few companies apply for funding, and LIVA has acted as an informer towards them, explaining the issues and concerns brought up by the companies in the seminar. This can also help the financiers to improve the offer and application to better fit the companies. This seminar is a good example of how LIVA acts as an intermediary/accelerator to help companies grow by helping them apply for R&D funding which will develop their business.

Some literature describes the actions to minimize asymmetric information as very important and cost minimizing for companies. In the literature about accelerators, Brown et al. (2019) often compare accelerators to intermediaries and stress the important role they have in connecting different actors. They further argue that accelerators act to minimize asymmetric information existing between companies and investors. Companies have a hard time finding funding and the time one needs to invest to find it seems overwhelming to companies. Brown et al.'s (2019) argument saying that accelerators and their intermediation function plays an important role in minimizing this asymmetric information stands true for what I have seen in this research as well. Katzy et al. (2013) also agrees with that innovation intermediaries play a role in minimizing information asymmetries and that it is vital for such system and market to even work. Even though the intermediary literature almost exclusively focuses on high-technological industries, we can see that intermediaries are just as important in low-technological industries for them to function. An intermediary organization such as LIVA play an integral role in creating the infrastructure for actors to meet by shortening the distance and information gap between them. LIVA as a public innovation support actively minimizes this gap between the actors by being a sort of “interpreter”.

Furthermore, LIVA also minimize information asymmetries in terms of other actors in the industry. It is no news that there is a jungle of innovation support actors and industry actors out there and companies find it hard to know who to turn to. It can be both in terms of public support, but it can also be in terms of finding the right partner to collaborate with or the expert in a certain field. LIVA minimize this information asymmetries by matchmaking companies with the resource they are searching for. One reason that they are able to do this is due to their involvement in the support network SAMLA Sverige which aims to minimize information asymmetries between innovation support organizations. By keeping track of other actors, LIVA has already taking that complicated step for the food companies and can thus help them faster.

#### **4.3.5. Fostering innovation**

Closely related to the earlier section about connecting the industry with research, is the role of LIVA to foster innovation in the industry and in SMEs. By connecting different actors with each other to form partnerships, trade services or collaborate, LIVA creates the forum for innovation to happen. Like many public initiatives, LIVA's long term goal is to strengthen SMEs in the region and to work for innovation. This is also in line with the earlier presented national food strategy aiming to strengthen the competitiveness in the Swedish food sector (Ministry of Enterprise and innovation, 2017) since new innovation hopefully can compete with

other nations' innovation. The relatively low innovativeness in the food industry compared to other Swedish industries also shows that initiatives that helps companies improving their innovative culture and development is very much necessary. When two actors who may not have a natural link otherwise meet, interesting things can happen and new inventions might occur. It can either be between companies or between a company and a researcher. For example, LIVVA helps with applications for R&D funding and often refers companies to apply for it. That type of funding is especially directed towards research and innovation projects where companies work together with a scientist in order to solve a problem or develop a new product or process. Important to remember is that the food industry is a low-technological industry and innovation in this industry means something else compared to other industries. As presented in the problem discussion, innovation in low-technological industries is mainly incremental (Pellegrini et al., 2014; Avermaete et al., 2004) and external actors as the most important factor for small firm's innovation skills (Avermaete et al., 2004). The employees of LIVVA and in RISE have expressed that innovation in a food company can be for example a new way of freezing a food product or inventing a new food category. Innovation in the food sector is therefore more often improvements rather than disruptive new technologies.

One successful innovation case which LIVVA described is the case of a bread company wanting to expand their export. In order for the bread to last the long transportation and still be fresh at arrival, the company had to freeze the bread. However, the quality in taste was lost and they wanted to research a way to solve this. What LIVVA did to help them, was to connect the company with a researcher at RISE who could help them research new techniques of freezing or adding something to the bread to keep the good taste. In addition, LIVVA referred the company to apply for R&D funding from the region to fund the research project and the bread company successfully received the money. The project was very successful and the research solved their problem. I believe this example clearly states how a public innovation support could foster innovation and supporting companies in their development by matchmaking and intermediation between relevant actors. Again, public innovation support can foster innovation by connecting research and the industry.

The way LIVVA as public innovation support foster innovation connects to one of Pauwels et al. (2016) three types of accelerators. The "welfare stimulator" refers to programs which purpose is to encourage and improve entrepreneurship, growth and regional development. By actively support SMEs in the region, LIVVA encourage entrepreneurship and raise the competence of companies in order to grow. When the competitiveness of food SMEs increase and new

innovations occur, the economic impact and regional development is positively affected. In that sense, LIVA is a typical public initiative as it benefits not just the single company, but a broader target such as the region, the industry and the society. Brown et al. (2019) and Goswami et al. (2018) all connects accelerators to the development of entrepreneurial ecosystems which benefits innovations and they explain it through the intermediary role an accelerator can play in connecting actors. I believe this research also shows how those two definitions are sometimes interchangeable and there is no static definition of either. The role of an accelerator as intermediaries in building ecosystems also show the bigger impact they have. Innovation is not only created for the single firm but in a larger, social and industrial context. It is interesting to see how Brown et al. (2019) argues that the intermediary part of accelerator literature is underdeveloped, but stress the importance and similarity of accelerators and intermediaries. It is very much in line with what the findings of this thesis have shown and I believe we might see more of the two literatures moving closer to each other in the future.

## **5. Discussion and conclusion**

*This section discusses the findings and the analysis in order to answer the research questions and to propose future improvements. Furthermore, this section presents the concluding remarks of the thesis.*

### **5.1. Discussion- What should public innovation support do?**

Based on the above results and analysis, one can draw conclusions of the role of LIVA as a public innovation support organization and what elements are the most important ones. Based on these reflections, this section aims to propose an improved model of support which could act as a foundation for future expansion of support such as LIVA. Big interest in expanding LIVA's business model has been identified and thus it is important to evaluate today's activities in order to create the best possible conditions for a successful national expansion. I argue that the role of LIVA is very important and successful cases show how companies have received great help in their business and growth, both in terms of practical business issues, but also more advanced innovation and research-based successes. Even so, I have identified a few suggestions of improvement based on my research as well as what is proposed in earlier literature. These suggestions are not generalizable to all public innovation support, nor are they best practice. It is a result of this case-study and is thus limited to the context.

The first, most obvious question to raise is; what is LIVA? Is it really an accelerator as the name would suggest? Or is it simply an intermediary organization? The answer might not be as simple as yes or no, especially not since the literature itself is not consistent in definitions. *Regarding whether LIVA as an innovation support fits the category of an innovation intermediary, the simple answer is yes.* They very much conduct intermediation and they do it well. This activity shows great value to the companies and they should continue excelling in that area. I argue that LIVA as a public innovation support fits the category of an innovation intermediary and *partly the definition of a public accelerator.* LIVA perform other activities such as coaching and competence building which falls under the description of an accelerator and not an intermediary. As the literature, and Brown et al. (2019) in particular writes, public accelerators rarely include funding or equity capital, and that holds true for this case-study as well. *Even though definitions are vague regarding accelerators, I argue that LIVA would benefit from narrowing their operations a bit and to keep them focused and to be closer to the general ideas of what an accelerator is.* Today, they accept all companies which falls under the definition SMEs (partly due to requirements from the financiers), however many of those companies they meet do not fit the description of a company in the growth phase and thus not companies who fit in accelerators.

The findings show that LIVA tries to do a little of everything, sometimes creating a shallow offering to the companies. They are effective in their operations but not always efficient. From the research, some of the reason for this is the requirements from the funding organizations. Since LIVA is funded as a project, they have specific requirements and goals to follow. For example, they are supposed to meet 60 unique companies per year, which means if they should work for that goal, it would give a better impression to the financiers if they meet 60 companies one single time, instead of 30 companies two times. This creates a complex paradox where their aim is to help companies grow, but they are measured on quantity and not quality. One can identify some tensions between what the organization believes would benefit the companies the most, and what the financiers require them to do. *In order to create the biggest impact and more effectively use their time and resources, I argue that they should focus on scale-up and growing companies and target their competence building activities towards them.* As the employees of LIVA expressed themselves, the very early start-ups with vague ideas take a lot of their time when their target are in fact companies in later stages. Other public initiatives exist to better take care of the earlier start-ups, and if LIVA leaves it to them, I believe they could achieve greater value for the growing companies. Furthermore, the competence building activities could



have as stronger focus towards the phase which growing companies are in, maybe the BMC workshops should be replaced with other know-how and know-what activities that better fit companies' current business situation and challenges. Even though Seet et al. (2018) present the BMC to be a valuable know-what for the companies in training, based on this research I argue it is too simple and should be replaced by other more complicated competence building activities. The findings from this research shows that companies seem to get the most out of the innovation support when it is more specific than general, and targeted towards their specific needs.

When asked whether the employees of LIVA know of any food companies which have participated in "real" accelerator- or incubator programs, their answer was no, or only a few. There seems to be no place for food companies in technology-focused accelerators and incubators. This makes the role of LIVA even more important for this industry, and strengthens the argument that LIVA should focus on scale-up companies since they have no such other place. *To clarify, based on this research, the new proposed model should focus on growing companies and include competence building activities and workshops specially targeting their needs.* With that said, more open activities could still take place, but maybe they should be more of networking meetings where everyone is invited or that the innovation support is always open for general questions. To matchmake an early start-up with someone who knows basic business knowledge should be the job for other supporters in the region. By narrowing LIVA's activities, they could easier measure their value and be the first option to whom which companies want to turn for support.

Moreover, to minimize the hassle for the companies of finding the right support in line with their current state, it should be clearer who does what in the support system. I believe SAMLA Sverige is great initiatives which tackles this issue to some extent by starting with the supporters. If the supporters get a better overview of each other, they can also match the companies with the right actor. Furthermore, with strong marketing on their specialties, companies will easier know who to turn to for help in different situations. It does not have to be that LIVA does not help companies with general questions or such, but it should be known what their special target is. *There needs to be less of a jungle and more of an infrastructure.* For innovation support such as LIVA to do the biggest change and impact in the industry, the findings from this research support a coherent and strong branding nationally. For this to be successful and to not be just another actor creating an even bigger jungle, this research propose that it remains under the same brand "Livsmedelsacceleratorn" and spread the awareness of it.

By keeping this business model intact and within the same hosting (RISE), the internal communication and matchmaking will be much easier than if it would be franchised externally as a concept or through similar business models under different names. Furthermore, one of LIVA's biggest strength is that it is connected to a well-respected research institute, and *if the support should be expanded to other parts of Sweden, it needs to be in connection with a research institute or similar*. That creates opportunities and shortcuts to competence and knowledge-based innovation and development.

## 5.2. Conclusion

This thesis has researched the role of public innovation support in the Swedish food industry through a case-study of the program called Livsmedelsacceleratoren (LIVA) in the region of Västra Götaland (VGR). The aim was to contribute new insights in the food industry which otherwise achieves little attention, as well as to contribute understanding of public innovation support and to propose improvements for possible future national expansions. The findings of this thesis add to the literature about public innovation support in the food industry as well as the literature on accelerators and innovation intermediaries.

The findings conclude that the public innovation support in this study plays an important role in helping companies in the food industry and five important themes were identified through the data analysis. The five themes through which such innovation support as LIVA helps companies are: *building competence, connecting industry with research, creating networks, minimizing information asymmetries between actors* and lastly *fostering innovation*. I argue that the most important role that this public innovation support plays is being the link between companies and other actors, in particular the link to researchers. Due to the complex conditions in the food industry, networks, expertise and competence are all crucial factors for business development. The connection between industry and research is important for the companies in building new competence internally and to develop new products. Public innovation support should focus these competence- and network building activities and have a clear focus on who they are trying to help. For the operations to be more efficient, the focus should be on growing companies and to help them in their business development through intermediation, competence building and networking.

Furthermore, one can conclude that in order for the focus of public innovation support such as LIVA to shift and be more efficient, the policy maker must be on board. Perhaps the measurements could be more focused on quality of the support instead of the number of support actions. The funding regions and organizations hold the key to allowing such improvements to

be made through their requirements and stipulated goals. The public innovation support holds deep knowledge and competence in accelerating businesses, but public policy must be in line with such initiatives. The inevitable question of public money rises again, but this research concludes that such money would be better spent if targeted towards a specific group and focus the activities on helping them. The ones you exclude should be helped through other targeted initiatives better focused on their needs. Such focus-driven support will more clearly benefit the SMEs and provide them with tailored support.

This case-study further concludes that public innovation support such as LIVA does not fully match the definitions of accelerators in the literature but the definition of an innovation intermediary. I argue that there is a need for new definitions of accelerators to fit other industries than only high-technological ones as well as to better fit the initiatives of public support. Mature and low-technological industries such as the food industry has for a long time been neglected in both research and in initiatives such as accelerators and incubators. They are often strongly focused towards disruptive technology or other hyped business areas which exclude the food industry to participate in such programs. The food industry is highly important for our society which makes initiatives such as LIVA crucial in supporting it. Times are changing, and the food industry is on its rise and it is time to acknowledge its potential and to embrace its possibilities.

## **6. Practical implications and future research**

This research proposes improvements of public policy and its requirements towards innovation support actors, in order to achieve more effective and efficient growth within food companies in Sweden. The findings have practical implications in policymaking and future decisions of public innovation support by problematizing some aspects of funding agreements. Furthermore, this research aimed to give direct feedback to the public innovation support LIVA by researching their activities and discuss their role as an innovation support organization. The findings can be used as a framework for future activities and as a base for their decisions and reflections regarding what is effective and what activities can be improved in their current organization.

Furthermore, this research was limited to a single case-study in the region of Västra Götaland. I propose that future research expands the study into a multiple case-study of different public and private support actors in the Swedish food industry to compare and achieve deeper insights. Innovation support in the food industry would also benefit from closer research

about what type of activities are ideal for such support to conduct and new frameworks for public accelerators need more attention. In addition, a quantitative study which researches the impact of the innovation support on the food companies would be of interest. I stress the relevance of highlighting the food industry in the literature of innovation intermediaries and accelerators in order to understand the complex processes and conditions of it. The conditions of a low-technological industry are not the same as for a high-technological industry and more attention should be given to the former in order fill the existing literature gaps.

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## 8. Appendix

### Semi-structured interview guide (in Swedish)

#### 1. Aktiviteter- LIVAs roll

- Vad skulle du säga är LIVAs roll gentemot företagen?
- Vad skulle du säga är er viktigaste funktion inom LIVAs?
- Hur hjälper ni företagen att växa?
- Har ni något urval eller kriterier när ni träffar företag för behovsanalyser?
- Vad tycker du om att ni träffar väldigt tidiga start-ups?
- Vad är det vanligaste behovet ni ser under ett behovsmöte?
- Är det nån gång ni träffar företag som ni inte kan hjälpa? Varför?
- Önskar folk att ni hade ett "riktigt" acceleratorprogram?
- Tycker du att ni borde ha ett riktigt acceleratorprogram?
- På hemsidan står det att ni erbjuder kompetensutveckling, på vilket sätt gör ni det?
- Även coaching står det, i vilket sammanhang erbjuder ni det?
- Kan du berätta om något lyckat case och hur ni har hjälpt företaget?

#### 2. Nätverkande

- Hur behåller ni kontakten med de företag ni träffar?
- Hur skapar ni nätverk?
- Hur upprätthåller ni nätverket?

#### 3. Innovationssupport och framtiden

- Berätta mer om samverkan med akademien? Vad har den för roll i LIVAs?
- Ser du nåt värde i att öka den kontakten?
- Hur mäter ni er framgång?
- Hur mäter ni företagens tillväxt?
- Matchar ni någonsin företag med andra företag eller kompetenser utanför regionen?
- Vad tycker du ni kan förbättra i ert arbete?

*-Om Livsmedelsacceleratorn skulle spridas till andra delar av Sverige, tycker du att den skulle ha samma innehåll som den har idag?*

*-Vad ser du för utmaningar med att samverka med en annan accelerator?*

*-Finns det finansiering att söka gemensamt om LIVA fanns på fler ställen i landet? Kan pengarna till samla bidra med gemensamt finansiera ett nationellt koncept*

*-Hur ser du på övriga stödaktörer i regionen, finns det några som gör samma sak som ni?*

*-Generellt, hur ser det ut med innovationsstöd så som ni själva för just livsmedelsföretag? Finns det många eller har de svårt att hitta stöd?*

*-Vet du om några livsmedelsföretag har varit med i någon inkubatorverksamhet eller varit med i acceleratorprogram? Är det vanligt?*