Aalto University
School of Business

Open sourced seed accelerator as a facilitator of startup success Case Startup Sauna

International Business

Master's thesis

Jukka Karimaa

2012

Department of Management and International Business
Aalto University
School of Business

Aalto University
School of Economics

Open sourced seed accelerator as a facilitator of startup success

Case Startup Sauna

Master´s Thesis
Jukka Karimaa
29.06.2012
International Business

Approved by the head of the Department of Management and International Business __.__.20__ and awarded the grade ____________________

AALTO UNIVERSITY SCHOOL OF ECONOMICS ABSTRACT

International Business

Jukka Karimaa

Open sourced seed accelerator as a facilitator of startup success: Case Startup Sauna

Seed acceleration is a fairly recent phenomenon and as such there is relatively little research done on accelerators. Their overall effectiveness as a way of supporting new business creation and survival is still questioned and the value they create for startups has received limited attention. This study aims to provide insight on this novel phenomenon and how startup entrepreneurs have experienced seed acceleration. Through a case study it also presents a new generation of accelerator programs called the open sourced accelerator. It seeks to understand how the program has affected startup teams.

This thesis is a qualitative case study focusing on Startup Sauna, an open sourced seed accelerator working within Aalto University. It uses 10 semi-structured interviews with Startup Sauna alumni to build a value proposition of an open sourced seed accelerator and this way contributes to the limited literature covering seed acceleration

The findings indicate that an open sourced seed accelerator helps startups in three major aspects. Firstly, it accelerates their business development by building motivation and confidence. Coaching and programmed events build business and product specific skills, and give structure, focus, pressure and discipline. In addition the other teams give support but also pressure and competition. Open sourced accelerator does not invest in the companies it accelerates, but offers acceleration without taking an equity stake in return. Secondly, compared to startups outside the program, teams in the program have preferential access to networks in the startup ecosystem. These networks include other startups, alumni teams, coaches and guest speakers such as successful entrepreneurs and industry professionals, as well as venture capital and angel investors. The third aspect is the association to the program brand and validation of the team and the idea graduation may offer.

Keywords: Startup, seed accelerator, incubator, open sourced seed accelerator

AALTO-YLIOPISTON KAUPPAKORKEAKOULU TIIVISTELMÄ

International Business

Jukka Karimaa

Open sourced-kiihdyttämö kasvuyritysten menestyksen fasilitaattorina: Case Startup Sauna

Kiihdyttämöohjelmat kasvuyrityksille ovat uudehko ilmiö sekä Suomessa että globaalisti. Kiihdyttämöohjelmia ja niiden kasvuyrityksille tuottamaa arvoa on tutkittu niukalti, ja niiden tehokkuus startup-yritysten kehittäjänä kyseenalaistetaan. Tämä tutkielma pyrkii valaisemaan tätä tuoretta ilmiötä ja sitä miten startup-yritysten perustajat ovat kokeneet kiihdyttämöohjelmaan osallistumisen. Case-tutkimuksen kautta se myös esittelee uuden sukupolven kiihdyttämöohjelman, open sourced –kiihdyttämön, ja pyrkii ymmärtämään sen vaikutusta yrityksiin.

Tutkielma on kvalitatiivinen case-tutkimus Startup Saunasta, joka on Aalto-yliopiston alaisuudessa toimiva open sourced –kiihdyttämöohjelma. Tutkimuksen aineistona on 10 Startup Saunan alumniyrittäjän haastattelua ja sen tavoitteena on esitellä miten open sourced –kiihdyttämö tukee startup-yritysten menestystä, ja tällä tavoin laajentaa niitä koskevaa kirjallisuutta.

Open sourced –kiihdyttämö auttaa startup-yrityksiä kolmella pääalueella. Se tukee niiden liiketoimintaa lisäämällä yrittäjien motivaatiota ja itseluottamusta. Valmennus kehittää yrittäjien liiketoimintaosaamista sekä yleisellä, että tuotetasolla, ja ohjelma antaa rakennetta, ja auttaa yrityksiä keskittymään niiden ydinosaamiseen, sekä painostaa niitä kurinalaiseen työskentelyyn. Kiihdyttämössä yritykset tukevat toisiaan, mutta myös kilpailevat keskenään ja siten työntävät toisiaan kehittymään. Open sourced –kiihdyttämö ei investoi yrityksiin, mutta tukee niitä vaatimatta vastineeksi osuutta. Ohjelmassa startup-yritykset pääsevät verkostoitumaan tavalla joka ei olisi mahdollista ohjelman ulkopuolella. Ohjelma lisää yrittäjän verkostoihin muita startup-yrittäjiä, ohjelman alumnia, ohjelman valmentajia ja vieraspuhujia kuten menestyneitä yrittäjiä ja asiantuntijoita, sekä enkeli- ja pääomasijoittajia. Kolmanneksi ohjelmasta valmistuminen toimii meriittinä sekä yrityksen idealle, että yrittäjille itselleen median, sijoittajien ja muiden yritysten silmissä.

Avainsanat: Startup, kasvuyritys, kiihdyttämö, hautomo, open sourced seed accelerator

Table of contents

List of tables

1. INTRODUCTION

1.1 Background

Running a startup is hard, with continuous battles with uncertainty when one fears that one single mistake can doom the whole enterprise. The entrepreneur has to survive squabbles with cofounders and hold his own in negotiations with investors, but the worst are customers who all think there's something wrong with your product and the inevitable realization that success will not be quick and easy. For these reasons Paul Graham, a successful tech entrepreneur, founded what is now the most successful seed accelerator, the Y Combinator in 2005. (Chafkin 2009)

Startups have been supported through business incubators since the late 1950s. Technological incubators combine financial, counseling and infrastructure services, providing the new firm with location, financial assistance, business and marketing advice, professional guidance and administrative support. These elements help the new firm to turn its idea into business while reviewing its economic visibility, uniqueness, advantages and the expected market demand for the product. At a national level an incubator is a tool for filtering new ideas and for providing seed capital and at a regional level it can be a means for economic development. Firms started in incubators have been found to have a higher rate of success than their counterparts outside, due to an increase in the number of employees, a reduction in labor and operational costs, and increases in gross sales, net profits, net value and overall benefit to the entrepreneurs. (Frenkel et al. 2008)

Since 2005 a new method of incubating technology based startups has emerged, the seed accelerator program, driven by investors and successful tech entrepreneurs. The accelerator differs from the traditional model of business incubation by generally offering a combination of five features; (1) an open, yet highly competitive application process, (2) provision of pre-seed investment, usually in exchange for equity stake, (3) focus on small team instead of individual founders, (4) time-limited support with a programmed structure and intense mentoring, and (5) intake in the form of cohorts (or classes, batches) of startups instead of individual startups. (Miller & Bound 2011)

Even though the phenomenon has received growing interest from the investment, business education and policy communities, there have been few attempts for formal analysis and research. Started in 2005 by one program in the US, the widely copied Y Combinator, the number of programs has grown rapidly since. There are now dozens of programs in the US funding hundreds of startups yearly and the trend is replicated in Europe. There are already a number of high profile startup successes from the programs. The programs seem to have a positive impact on founders, accelerating their learning, creating networks and in general helping them become better entrepreneurs. (Miller & Bound 2011)

The rise of the accelerator programs has been associated with the changing economics of startups. The cost of early stage tech startups have dropped significantly in the last decade, creating an opportunity to invest with very small amounts compared to earlier eras of investment in digital businesses. Angel and venture capital (VC) investors have supported the programs because they "create a pipeline of investable companies, scouting for and filtering talent and connecting them with a concentrated stream of mentors and strategic resources". The connections created by the accelerators have a positive effect on the local startup ecosystem they operate in and they act as focal points for introductions and building trust between founders, investors and other stakeholders. (Miller & Bound 2011, 3)

The catchment area for accelerators is already international and nearly global, with the founding teams being willing to relocate across the world and certainly across Europe for the limited period of the program, limited only by visa status. At the same time demand for accelerators programs exceeds the supply considerably. Also, there will be limits to their growth; the pool of high quality mentors, opportunities for acquisition by large companies or stock market flotation and competition for startup talent with other career opportunities. (Miller & Bound 2011)

Finland has had a fairly active startup scene with some notable success stories such as MySQL, F-Secure and Linux, and more recently Rovio capturing wide media attention. Startups' role as an economic motor has been a hot topic recently also because of the troubles faced by large multinationals, especially Nokia and large companies in forestry and other traditional industries.

With the whole accelerator phenomenon being fairly new, even more recent is the open sources seed accelerator model. In the open sources acceleration model, the accelerator does not seek profitability through equity stakes in the startups. Publicly funded, it aims to provide the highest quality of acceleration without taking equity in the teams it accelerates. The teams are provided with connections to investor networks to raise investment, but being accepted to the program does not automatically mean investment.

1.2 Presentation of the case: Startup Sauna

The accelerator in case, Startup Sauna (SUS) is a non-profit seed accelerator funded by Aalto University Center for Entrepreneurship (ACE) and TEKES (the Finnish Funding Agency for Technology and Innovation), catering mainly Finland, Russia and the Baltics and most recently also China. The program has roots in Aalto Entrepreneurship Society (Aaltoes), a privately funded student organization focusing on building entrepreneurial spirit and community. The program operates open sourced which means that it does not take equity in the startups it accelerates, and thus does not fund them and that the mentors (in the case of Sauna, coaches) offer their services pro bono.

Started in 2010 (the first year under the name Bootcamp) SUS's intakes two cohorts, or batches of 15 to 20 startup teams every year into a program organized in two parts.

Firstly, one-day pitching and coaching events called Warmups are organized in relevant cities in the aforementioned areas. From the Warmups the best teams qualify to the second part, the actual program at Aalto Venture Garage, an Aalto University co-working space in Espoo, Finland. The program includes six weeks of intensive business development, lectures and coaching from selected local entrepreneurs, during which the teams are expected to work full time on their idea. Teams that fail to deliver can be eliminated. The program ends with a Demo Day where the teams pitch their ideas to a wider audience. The best performing teams get to attend Investor Breakfast along with other potential startups from the area, where they have one to one meetings with investors. In addition to the six-week program the best performing teams spend another week in Silicon Valley where they are arranged to meet investors, industry professionals and media, pitch their idea and network. Three best teams get prize money of 5000 euro and an office space for six months.

At the time of writing four batches of teams, a total of 63 startups have graduated from the program. In total SUS has received 844 applications, 380 teams have received coaching. 59% teams have come from Finland and the rest from other countries. (Borella 2012)

The motivation of this study was to provide some research on the emerging startup ecosystem of Finland, and especially the role of Startup Sauna as a facilitator and local hotbed of startup activity. There has been a growing interest by the key stakeholders, namely ACE, TEKES, SUS staff and coaches as well as the alumni teams to map the current status and assess the performance of the program and the alumni teams. The first quantitative study on the results of the program was done in fall 2011 by one of the coaches, Paolo Borella (Borella 2011).

This study was sponsored by the Aalto University Center for Entrepreneurship and the results will be used for internal and external communication of the Startup Sauna program. In addition the data and results are used for publication purposes in a larger research setting.

1.3 Research gap

There is a lot of literature on business incubation with great diversification of terminology and types of incubation offered (Dee et al. 2011). Existing literature on incubators has some problems. Phan et al. (2005) suggest that there is no systematic framework to understand this phenomenon, their dynamic nature (as well as that of the start ups located in the incubators) and lack of clarity on performance measurement.

Descriptions of incubation facilities has received a good deal of thought, but lot less has been put on the incubatee startups, the innovations they seek and the achieved outcomes of innovation (Hacket & Dilts 2004a), which leaves room further analysis of the innovation process itself as well as of incubator and team or individual entrepreneur level, since their nature might strongly influence the graduation of ventures from incubators (Phan et al. 2005, Hacket & Dilts 2004a). Also, focusing more on the incubation process than on the facility and its configuration will better bring visible the causes of new venture development (Hacket & Dilts 2004a). According to Voisey et al. (2006) in the context of business incubation qualitative or soft data, which means subjective measures such as increased business knowledge, networking and confidence, can be used to measure success in a number of ways. These include individual's progress, showing staff what progress is being made, supporting project development and adjustments and demonstrating additional benefits to stakeholders and funders (ibid). It also offers context for the incubatees needs and progress (Voisey et al. 2006).

Accelerator programs, being a relatively new phenomenon, have received little attention in research (see Miller & Bound 2011). The most comprehensive studies on this incubation model have been by Miller and Bound (2011) and Christiansen (2009). The model of open sources seed acceleration is even more recent, thus leaving much space for research. Earlier research on incubation has suggested that it is difficult to distinguish between growth that is caused by incubation and growth that would have occurred without it (Dee et al. 2011). From quantitative analysis on the economic performance it may be difficult to distinguish the effect and significance of the accelerator on subsequent success so qualitative research can help to point out the importance of a program. Also, the Startup Sauna program has never been the topic of a qualitative research. It is in an interesting phase in its development; it is still developing its offering and establishing its track record with some of its alumni receiving significant investment. Also it is operating in a region with a lively, but somewhat hidden and still emerging startup ecosystem and limited angel and venture capital investment in startup firms.

1.4 Research problem

There had not been extensive collection of qualitative data from the alumni teams that had graduated from the program. The goal of this study was to propose a value proposition of an open sources seed accelerator especially from the startup team's point of view. Through in-depth interviews this thesis analyzes the effects of an open sources seed accelerator to the early phase of startup companies and how the startups experience the effect of the accelerator on their development. In addition the goal was to study their perception of the quality of Startup Sauna program and its significance to the success of the teams that participated, and thus offer tools for Startup Sauna to analyze its performance in the future.

The following research questions were drafted and further divided into sub questions:

- How does an open sources seed accelerator facilitate the success of startups?
    - Why do startups apply to an accelerator?
    - How does acceleration affect the success of startups?
- How has Startup Sauna succeeded in facilitating the success of startups?

1.5 Definitions

- Startup

  In this study the term startup is used to refer to an early stage company (or a team) searching for a repeatable and scalable business model in a phase of development and market research.

- Incubatee firm

  Refers to a firm, often a startup residing in a business incubator.

- Seed accelerator

  A program offering time-limited support with intensive mentoring to startups, offering pre-seed investment usually in exchange for equity. Intake in the form of classes (cohorts/batches) through an open but highly competitive application process. Focuses on startup teams rather than individual founders.

- Open sources seed accelerator

  Otherwise similar to the typical model of acceleration programs, but differs in one major aspect. An open sources approach means that the program is free to the participants. An open sources accelerator does not take an equity stake in the startups, and thus does not offer major seed funding.

2. LITERATURE REVIEW

2.1 Incubators

This chapter presents earlier literature first on the topic of business incubation followed by the more recent accelerator phenomenon. As the seed accelerator has existed only well under 10 years, scientific literature on the topic is scarce, and the literature on accelerators is supported by articles from industry publications, which, in the case of accelerators, are often widely quoted.

2.1.1 Definitions and rationale

The startup process and early growth have lately been a target of increasing interest (Bollingtoft & Ulhoi, 2005; Grimaldi & Grandi, 2005). There is a perception among policy makers and scholars that innovation results in wealth creation in regional and national levels (Phan et al. 2005) and that startups constitute an important part in this innovation process (Aerts et al. 2007). Another common perception is that small, new-technology-based firms also play an important part in creating jobs and boosting economy (Phan et al. 2005; Bollingtoft, 2012). Incubation is seen as a way to address market failures that limit the ability of small, high-technology startups to overcome the uncertainty and obstacles of early stage firm development (Dee et al. 2011; Phan et al. 2005; OECD 1997). These market failures stem from high costs and risks of supporting high-tech startups, a risk that private sector is not willing to carry (Dee et al. 2011). Startups have the problem of "newness" that incubators try to deal with; they lack market visibility as well as connectedness to resource networks (Phan et.al. 2005, 174). Business incubators guide startups through their growth process and as such constitute a strong instrument to promote innovation and entrepreneurship (Aerts et al. 2007). This has lead to a substantial increase in public and private spending on incubators (Phan et al. 2005) that are viewed as a tool for promoting especially tech-based growth firms (Bergek & Norrman 2008). A study by European Comission (2002) revealed that the survival rate of incubated firms was significantly higher than that of their counterparts in the wider SME community, and 80-90% still existed after five years.

Even though incubators' net job creation is minimal it is not insignificant and anyway risk reduction and improving survival rates are deemed more important (Hacket & Dilts 2004a). They are also more cost-effective than programs for attracting firms to an area (Hacket & Dilts 2004a) and can have a key role in the development of a region or an area (Mubarak & Busler 2010). There is evidence that incubated firms succeed at a greater rate than their counterparts outside incubators in terms of survival, sales and employment growth and forming co-operative relations (Scillitoe & Chakrabarti 2010).

Business incubator is increasingly described as an umbrella word for different definitions (Bollingtoft, 2012; Aernoudt 2004). Incubator is an “enterprise that facilitates the early stage development of firms by providing office space, shared services and business assistance” (Hackett & Dilts 2004a, 55). It is a strategic intervention system that adds value to the tenant startups by monitoring and business assistance. However it is not just space and infrastructure but also a network of individuals and organizations from the incubator to stakeholders such as industry contacts, universities and professional service providers (ibid).

Many different kinds of organizations are referred to as incubators due to unclear definitions and regional and national differences in the conditions for the incubators and the tenant startups (Aaboen 2009). In the literature research on incubators is often related to science parks, where these two are often seen as interconnected, as well as research parks and technology innovation centers (Hacket & Dilts 2004a). Bergek and Normann (2008, 22) want to make a distinction between the concepts. In their view science and technology parks are directed more for mature firms, whereas most incubators try to bridge the gap between business ideas and the “attempt stage”. Incubators try to accelerate the process from initiation to growing firm of knowledge- and technology-intensive new technology-based firms (Aaboen 2009, 657).

Phan et al. (2005, 166) regard incubators as property-based organizations focused on business acceleration through knowledge and resource sharing. They (2005, 170-171) define incubators as an intermediate organization that offers the social environment, technological and organizational resources and managerial expertise to transform a technology-based business idea into an effective economic organization. Hansen et al. (2000) likened the word incubator synonymous with for-profit organizations that develop internet-related ventures. Aaboen (2009) stresses that an incubator needs to have a program, even though a structured program is more often linked to accelerator programs. Despite the conceptual disagreements, the common factors are opportunity to lease space at flexible terms and reduced rents and shared services (Bruton 1998).

In general incubators tend to have very different revenue streams and incentives that lead to an environment which encourages networking among tenant firms, and the incubators rarely emphasize just one startup need and instead cater to multiple needs and offer continual support (Dee et al. 2011). In addition they are dynamic, meaning that their mission and operational procedures change over time (Phan et al. 2005, 169).

2.1.2 Incubator types

Based on earliest research on incubators, they can be classified according to the nature of their primary financial sponsor or the business focus of the incubatees, with incubator support network and university ties being the key characteristics. Low rent, shared services and the existence of entry and exit policies are other key characteristics. (Hacket & Dilts 2004a)

Incubators can be private or public (Dettwiler et al. 2006). The sponsorship of incubators varies among public, such as city and state economic development bodies, non-profits by groups such as chambers of commerce, university-related and private for-profit (Bruton 1998).

In addition to their sponsors and stakeholders, incubators can be categorized by their objectives. Each incubator tries to cope with market failures or in other words, with a specific gap. Aernoudt (2004, 128) uses the following typology of business incubator types:

Table 1: Typology of incubator types (Aernoudt 2004, 128)

Incubator type	*Main philosophy: Dealing with*	*Main objective*	*Secondary*	*Sectors involved*
Mixed incubators	Business gap	Create startups	Employment creation	All sectors
Economic development incubators	Regional or local disparity gap	Regional development	Business creation	All sectors
Technology incubators	Entrepreneurial gap	Create entrepreneurship	Stimulate innovation, technology startups and graduates	Focus on technology, recently targeted, e.g. IT, speech-, biotechnology
Social incubators	Social gap	Integration of social categories	Employment creation	Non-profit sector
Business research incubators	Discovery gap	Bleu-Sky research	Spin-offs	High tech

University incubators are an important type of incubators. Often they are means for commercializing technologies developed in research universities, hence referred to as technology transfer offices (TTOs). Public universities view the incubators a source of regional economic development (Phan et.al. 2005) and they are of interest to policy makers both on national and local level as a widely accepted tool for promoting economical development, innovativeness and the emergence of high-tech startups (Bergek & Normann 2008, 20; Bollingtoft, 2012).

Grimaldi and Grandi (2005) point that the rationale behind different types of incubators lies in their ability to attract different kinds of companies. With different offerings as well as application criteria incubators are able to answer the differing demands of firms in different phases of their development, and this way should not be seen as competitors.

2.1.3 Success factors

According to Aernoudt (2004) incubators should focus primarily on fast growing companies, which ensure most added value and jobs. Incubators focusing on new economy are thus crucial but might suffer from the overall unidentified object that the incubator often is today. Incubator quality and identity are thus crucial. (Aernoudt 2004)

According to Hacket and Dilts (2004a) incubators with an entrepreneurial environment, economies of scale and network access are more likely to have successful incubatees. They find also network relationships and institutionalized knowledge transfer to enhance the likelihood of incubation success. In addition the role of selection and the incubator manager are important, as well as the time and intensity of incubator manager intervention coupled with the readiness of the incubatee startup manager impact the success of the incubatee (ibid).

Hansen et al. (2000) present the networked incubator as one that stands out. It gives startups preferential access to potential partners and advisors by creating mechanisms that foster partnerships between the startups and other successful internet-oriented firms. This facilitates flow of knowledge and talent across firms and creates marketing and technology relationships between them. The startups can then network to obtain resources they lack and partner quickly, which allow them to establish themselves in the marketplace ahead of competition.

2.1.4 Incubator value offering

Bergek and Normann (2008, 21) point that incubator literature has focused especially on four components of incubator offering. They offer shared office space, shared support services, coaching and internal and external network provision. The most obvious benefit of incubators is the shared office space and professional facilities rented with favorable conditions (Aaboen 2009; Hansen et al. 2000; Dee et al. 2011; Bergek & Normann 2008; Bruton 1998; Aerts et al. 2007).

Along with the physical space come the different shared support services that lower overhead costs. These are technological and organizational resources such as accounting and legal, tax, patent and financial planning, IT-systems, pooled buying programs, insurance, employee benefits, PR, pooled buying programs and government contracting. (Hansen et al 2000; Bergek & Normann 2008; Bruton 1998)

Another important aspect of the incubator value offering are the intangibles they offer, meaning the knowledge they provide and learning they create for business development. They offer coaching, management and marketing expertise, export development and recruiting (Aaboen 2009; Hansen et al. 2000; Dee et al. 2011; Bruton 1998, Aerts et al. 2007). Within an incubator the startup founders may build increased professionalism, business skills and knowledge, increased confidence in self and business, increased and more productive networking with peers and even positive publicity (Voisey et al. 2006). In addition to peers, incubators offer a chance to network with other incubators and government agencies (OECD 1997). The networking aspect of incubators, both within and to the outside, has recently been a topic of research, following from entrepreneurship literature where networks often play a crucial role for startups (Bollingtoft 2012). These aspects are more difficult to measure to show success of the incubator, but are useful for the incubatee firm as they may be applied in future entrepreneurial activities (Voisey et al. 2006).

Funding is also a part of the offering in some incubators (Aaboen 2009; Aerts et al. 2007). If financing is not direct, incubators can be a way to gain access to venture capital funds and business angel networks (OECD 1997). In addition the incubator gives goals and structure (Aaboen 2009). Dee et al. (2011) also mention that an incubator draws from its own staff, external consultants and existing entrepreneurial networks to provide new firms with credibility through association. Incubator offering allows startups to focus on their business plan and increases success rate (Aerts et al. 2007).

From their extensive review on earlier incubator research Hackett & Dilts (2004a) offer the following:

Table 2: Incubator value offering (adapted from Hackett & Dilts 2004a)

Souces of value: Incubator to incubatee	Souces of value: Incubator to community	Souces of value: Incubatee to community and incubator
• Credibility • Diagnoses of business needs • Selection and monitoring • Access to capital • Access to network of experts and support systems • Faster learning and solution to problems	• Designed to cultural values of community • Communication with community leaders	• Economic development • Technology diversification • Job creation • Profits • Viable firms • Successful products

2.1.5 Critique

Apart from advantages of the location and administrative support the value of incubators has been questioned (Phan et.al. 2005) and their real efficiency remains open to doubt (Bollingtoft & Ulhoi, 2005; Tamasy 2007).

Measuring incubator performance has proven to be difficult (Phan et al. 2005, Tamasy 2007). In an environment where incubators constantly must report success of the incubated startups to continue receiving support from public funds, the situation can tempt incubators to over-report the successes and undermine the failures (Hacket &

Dilts 2004a; Phan et al. 2005). Many quantitative academic studies attempting to evaluate the effect of incubation on populations of firms have more conservative results than industry reports and often with contradictory findings (Dee et al. 2005). Even though incubator literature is plentiful, few studies have applied a robust evaluative approach to assessing the economic contributions of incubators (ibid.).

Many incubators are non-profit, which makes the usual economic analysis challenging (Dee et al. 2011). Dee et al. (2011) also note that even those incubators identified as private often have public support for the programs they run. It is also difficult to distinguish between firm growth that would occur without incubation and additional growth caused by incubation (ibid.). Simply locating in an incubator does not guarantee success. Indeed, many incubators simply offer a space to set up shop and not much more (Hansen 2000). Aspects of the incubator offering, such as learning and networking make measuring success and best practices complicated (Voisey et al. 2006).

2.1.6 Incubation in Europe and Finland

One of the biggest barriers for incubation in Europe is the lack of entrepreneurship and the underdevelopment of seed funding and business angel networks. Entrepreneurship is still considered an anomaly in most European countries, which impacts the development of incubators through the supply of projects and the eagerness of incubatees to graduate. Incubators have developed quickly in Europe but have, to a large extent, been non-profit with the aim of regional or local development. But even incubators developed in a business friendly climate and having close links to with startup financing face huge problems in sustainably assuring their own financing. Targeted subsidies focused both on real incubators and business angel networks, especially in the launching phase, have thus been unavoidable, but as the American experience has showed, this can be done in a cost-effective way. Business incubators and business angel networks are a tool for bridging the entrepreneurial gap and can contribute to the development of a virtuous circle for the regional economy in which they are embedded. Business angel networks provide hands-on management and financing to companies, but the major impediment for their future development in Europe is the lack of good projects, the lack of entrepreneurship and the lack of formal seed money facilitating exits. (Aernoudt 2004)

In Finland incubator activity effectively began after Finland joined the EU in 1995, and EU has had a major effect on the growth of programs both in size and number. The biggest precondition for success in here was sufficient supply of business ideas and potential ideas. Finland has problems in attitude and competence, deal flow of high quality growth businesses and resources such as competent serial entrepreneurs, active VCs and angels (Ruohonen 2007).

2.1.7 Key findings

Incubators have existed since the late 1950s and have since the 1980's become a popular policy instrument to foster entrepreneurship, innovation and regional development by providing tangible and intangible services to mostly technology-based firms (Dee et al. 2011; OECD 1997; Bruton 1998) and should be one element of a larger economic development strategy (Hacket & Dilts 2004a).

To sum up, incubators can be an effective means of supporting early stage firms and increasing their chances of survival. At the same time, simply locating in an incubator does not guarantee success. It is important for a firm to consider carefully the benefits of an incubator and choose accordingly. Incubators can be a way to receive funding at the early stage and they are an opportunity for a firm to locate in high quality, low-cost office space complemented with a number of support services to lower overhead costs. More importantly, an incubator can be a place where young companies are able to create and tap into networks of experts and support systems, get help in business development as well as frequent monitoring, and enjoy faster learning and solutions to problems. They are also a medium for young companies to enjoy an entrepreneurial atmosphere and network and co-operate with other firms in a similar situation.

Incubators have been popular and important policy tools for fostering entrepreneurship and supporting early stage firms. However the effectiveness of incubators as a policy instrument for developing regional economy as well as their ability to create successful firms remains in question.

2.2 Accelerators

As the accelerators are a new phenomenon, this part tries to give insight to the background of seed accelerators and describe their effect to build an accelerator value proposition and a value proposition for an open sources seed accelerator.

2.2.1 The accelerator phenomenon 2005-

Many accelerators are creations of successful entrepreneurs and investors. The phenomenon really took off in 2005 when Paul Graham founded Y Combinator, the most successful and copied accelerator, followed by David Cohen's TechStars in 2006 and Reshma Shohoni's and Saul Klein's Seedcamp in 2007. In a 2011 study by Kauffman Fellows, using a criteria that left out non-profit accelerators, the number of accelerators in the US and Europe only was over 200. Seed accelerators have been likened to startup factories, churning out new companies in quantities.

Three important factors have influenced the economics of startups and thus the increase of accelerator programs. Accelerators take in predominantly web-based and mobile companies whose product development costs and time have been greatly diminished by technological development. Within the last five years the costs of hardware and software have fallen significantly. In addition, high-quality, open-source software has come to replace the expensive licensed software, pairing low costs with a community for developers from which they find help and receive feedback. Other software trends are cloud computing and also pay-as-you-go infrastructure, where lower monthly costs instead of large, up-front payments allow startups to test and try before making large investments. Project management tools that were previously available only for large firms, are now affordable to teams of a few people too. These days startups have also a wider range of specialized office providers with short contracts and high flexibility, sometimes even introductions to investors. These factors have actually lifted the people as the major cost – how startup entrepreneurs cover their living costs before their first product, customers or investments. Even more important has been the dramatic decrease of customer acquisition costs and increased possibility to target specific customers and measure effectiveness of the approach in sophisticated ways. In addition to the access to potential customers, development of direct payments, app stores and subscription models allow easier routes to revenues. (Miller & Bound 2011; Chafkin 2009; Hansen et al. 2000)

However as the costs have dropped, Miller and Bound argue that the investment market has changed as well and venture capital industry is struggling to adapt. VC has, especially in Europe, retreated from early-stage investments, and the composition of early-stage investment is changing. In the US a number of multi-stage investment funds have emerged but in Europe only a few new feeder funds. The claim is that in Europe the early stage is hard and good companies too dispersed. In both US and Europe business angels have been filling the gap, growing in numbers since 2000, and public investment funds have been introduced and are improving in performance, especially where co-investments are concerned. Despite these positive signs there seems to be an investment gap between the US and Europe. The problem of the European investment market is not that the investors' ability to grow good companies, but that the environmental conditions, particularly the pipeline of companies is inadequate. (Miller & Bound 2011)

2.2.2 Accelerator definition

There is a long tradition of business incubation research available, but little serious literature on seed accelerator programs, even though there are a significant number of articles written about the topic in popular press. There is also significant literature on startups and entrepreneurship, but seed accelerator programs are so new that they still consider their own success an open question as early stage investors expect a return within five to 10 years. (Christiansen 2009, Chafkin 2009)

Five main features in combination set accelerators apart from incubation and other approaches to investment. (Miller & Bound 2011)

- An open, yet highly competitive application process

  The application processes are quick and often focus as much on the team behind the startup as the idea itself. The programs are highly selective with low acceptance rates and often make considerable effort to reach out to potential applicants to keep the quality of applications high.

- Provision of pre-seed investment, usually in exchange for equity.

  The amount varies but is usually based on an assumption of how much the costs of living are per co-founder during the period and a short time after, and can be an equity investment or convertible note.

- Focus on small teams instead of individual founders

  Startups are deemed to be too much work for one person. However, due to costs of taking in teams, many accelerators limit the number of team members, often to four. It is also a question of funding for the accelerators. One of the most important aspects of accelerator management is the ability to spot not just good ideas but talent behind them.

- Time-limited supports with intensive mentoring (coaching) and programmed events

  Accelerator length is usually 3-6 months. Shortening launch times of web-based startups are part of the reason, but most importantly, limited time creates pressure and speeds up the progress of the teams. Contact with experienced professionals is one of the core services of accelerators and can come in various ways. From thematic lessons to one-on-one sessions, the goal is to challenge the teams and offer them feedback and also create longer-lasting relations between teams and mentors. It is essential for the programs to build an extensive network of high quality mentors. Besides the networks of the accelerator operator, also the willingness to give back to the startup community motivates mentors. In addition, high quality teams are needed to attract premium mentors.

  Even though programmed events vary from pitching lessons to legal and tax advice, the demo day is a consistent feature. It is the culmination of the program and an opportunity for the teams to get press coverage on industry publications and present to investors in a way that would be very difficult to achieve without the program.

- Classes (or batches) of startups rather than individual companies

  Classes of startups have been likened to industrial processes where efficiencies are achieved by helping multiple teams at the same time, or to university students graduating together. Optimally in this system the teams work together to support each other, helping and pitching to each other preparing for more vital presentations to investors and clients. However it also takes away burden from the accelerator management team, helping them to focus on bringing in outside expertise.

Christiansen (2009, 7) used slightly different criteria to separate seed accelerators from other forms of funding. The elements that made an accelerator were

- Funding (typically to seed level)
- Company founders are small teams with technical backgrounds
- Each batch (or cohort) is supported for a defined period of time
- Education program focusing on business and product advice
- Networking program to meet and/or contact other investors and advisors

In addition Christiansen (2009) pointed out two factors that the programs may or may not include, namely a demo day and free or subsidized office space. In his study he excluded programs that were either offering seed funding without structured education program, or were education programs without seed funding.

Seed accelerators are such a new phenomenon that there is not a universal definition in use. Some researchers and commentators as well as rankings (such as Tech Cocktail and Kauffman Fellows) of programs take into account only programs that are run for profit and take equity. In this sense Startup Sauna's open sourced approach differs it from the programs studied in the most extensive pieces of accelerator research.

2.2.3 Accelerator business models

Funding is the major point of difference between the open sources approach and the common and more traditional accelerators. Accelerators have usually searched profitability and sustainability by looking the startups they supported to be acquired by large firms. Usually the exits are not high profile, billion-dollar deals comparing to Skype or Youtube, but smaller acquisitions of a few million dollars.

The core business model of accelerators follows a simple structure. Investors invest in the accelerator, and the investment is used as a fund, partially paying for the running costs of the program, partially invested into the startups in the program. The accelerator takes equity in the startups with the hope of making a return on those shares. Equity is taken in shares or convertible notes. Some also have supplementary business models, such as sponsorship of events and support from public entities. The legal structures of accelerators come in different forms. (Miller & Bound 2011)

In his dissertation "Copying Y Combinator" Christensen (2009) proposed a framework for creating a for-profit accelerator following (but not copying) the model the often-benchmarked pioneer of accelerators:

Table 3: Framework for a for-profit accelerator

Founders and their backgrounds	There must be a key person/persons who have experience of operating a startup and operating as angel or seed investors, who also have to be very aware of their background, resources and where their strengths and abilities lie. They have to stick close to their field of experience when starting a program.
Program focus	Choice of program focus is critical. While many have focused on web applications, founders should carefully analyze the city and local region they operate in and understand its resources and capabilities, and leverage its pre-existing talent both in startup founders and experienced entrepreneurs. Rich resources will help attract the best startups in that industry and technology.
Distinctive and compelling	The program must be distinctive and compelling to entrepreneurs. Cloning a successful program will likely fail, since it will attract lower quality applicants and serve them with inferior connections to capital. Instead the founders should seek to determine what is special to firms in their new program.
Program goals	If the primary goal is financial return, the program needs a substantial number of applications and fund a good number of them. Creating an ecosystem will likely mean funding companies with lower potential of returns.
Funding	Funding decisions follow from the choice of focus and goal. It depends on the founders' knowledge of the particular vertical on which the program focuses. Ideally the funding will be enough to get the firm to its next milestone, and the equity stake as low as possible while the program still meets its financial goals.
Size	Focus and available funds affect the intake of startups. Too many risks a large investment outlay, too little may not be compelling enough to attract key advisors and investors. It is also a balance between large intake and large opportunities versus diminishing the time and attention given to each team.
Education program	Offers great opportunities to innovate, but as long as the teams are mentored on both business and product-specific topics, they will be better for it. The structure must be based on the technology or industry vertical the program focuses on as well as the background of the entrepreneurs.
Office	Accelerators with or without common space exist, since it can be both useful as the teams interact and learn from each other, but can also derail focus. The teams should

space/incubation	not be forced to co-work, but if the benefits outweigh the practical cost, common space can be provided.
Brand	A program needs to build a strong brand quickly. The brand is built from what the accelerator program does and how its alumni succeed. If the program is able to recruit the best startups and build them successfully, this will come naturally. An important part of the brand of the most successful accelerators is giving back to their community, which also helps improve applicant quality in the long run.

Both privately funded accelerators and those operating under public funding or universities rely on the success of their startups for future funding. Private accelerators take equity but both try to build a track record of successful alumni to attract high-potential startups and in the case of public/university accelerators, a track record of successful alumni teams justifies future funding.

2.2.4 Uniqueness of accelerators

Incubators and accelerators both focus on firms at the earliest stage of development and involve an application process for admission. Where they differ is how much equity they take in the companies they accelerate and their business models. Incubators in general do not take equity in their startups. Incubators are typically run as non-profits and they make revenue by charging tenant startups rent and services while accelerators are mostly for profit and provide seed funding. This difference in the business model has been seen as the dramatic break from previous models. Accelerators' financial viability depends on the success of their startups. They are less reliant on government funding, which has been quoted as one of the top value-adds from business incubators. (Christiansen 2009)

Incubators and seed accelerators offer startups unique benefits. Table 4, adapted from Dee et al. (2011, Table 2) presents the unique character of seed accelerators compared to incubation.

Table 4: Comparison of incubation and acceleration (Adapted from Dee et al. 2011)

	Incubation	Accelerator programs
Deal flow/ clients	Receive applications from ventures that are subject to a selection process e.g. incubator branding encourages self-selection or selection criteria are imposed on potential tenants.	Open, yet highly competitive application process. Highly selective with low acceptance rates, programs often work hard to keep level of applicants high. Often focuses on the potential of the team as much as on the idea.
Main revenue stream	Mixed revenue between rental income and other public and private sources.	Return on investment in ventures, or mixed revenue between public and private sources. The open sources model operates on public funds.
Primarily addresses what market need?	Access space, knowledge and resources via staff, programs and networks.	Access to knowledge through mentoring, structure and pressure, networks (alumni, investors, industry professionals), validation, need for investment (not all programs).
Peer-to-peer networking	Actively encouraged and facilitated through a shared space (typically physical space but also possible in an online space).	Actively encouraged and facilitated through program structure and deadlines, communal events such as dinners, sometimes also shared space.
Time scale	Typically 3-5 years (anchor tenants are often longer) with a mix of episodic and continuous interventions but continual exposure to incubation environment. Time may be limited but usually companies mature and move out of the incubator.	From a few weeks to 3-6 months.
Target firms	Broader range of firms, not typically restricted to new ventures.	Early stage startup firms, often technology-intensive with high focus on mobile/web and other digital firms with short development cycles.
Funding	Some incubators, mainly private, offer funding in exchange for equity stake.	Some (though not all) programs offer funding for team and additional fixed sum per team member, some offer only living expenses. Angel founders may participate in later rounds. Teams are introduced to angel investors and VCs.
Structured program	Some incubators have a structured program.	Offer a structured program to accelerate early-stage development.
Physical space/incubation	Offers space at low cost.	Some offer space and resources for teams.

Startup entrepreneurs can also choose other options, each with their benefits and risks. Some founders choose bootstrapping in order not to lose equity or take a loan, and keep working freelance or day jobs at the same time. Bootstrapping can mean slow growth and the external advice offered by accelerators may be hard to come by. Bank loans may be difficult to get pre-revenue or without security and loans from family and friends add to the already significant pressure of the founders. Government funding is an option, but the slow approval process can be difficult for cash-strapped startups and may be followed by bureaucratic reporting procedures. Government funding may also be reliant on a match with subject areas in calls for proposals and may come with requirement to relocate or other strings attached. (Miller & Bound 2011)

2.2.5 Value of accelerators

Accelerators do not offer life support. Instead they offer short-term, high-impact program to kick-start the evolution of ideas into effective businesses. Most incubators limit the time a startup can stay in their facilities (Bollingtoft & Ulhoi, 2005) but accelerators make this time shorter, and by nature push the startups to advance quickly, and have something ready at the end of the program, be it months or as short as six weeks. Since accelerator programs put emphasis on the team potential in selection, radical changes in the business plan and pivoting during the program is not unheard of.

According to Christiansen (2009) one reason to build accelerators is to build an ecosystem. Encouraging startups in the community may increase the total amount of startups founded and create long-term employment effects.

Accelerator founders who enter as angel investors there is naturally a financial incentive based on successful exits of alumni startups. Through accelerator programs they are able to review a number of promising startups in the industry they are interested in, and the opportunity to build a high-quality deal flow. In addition they have an opportunity to continue cooperation with the most successful ones after they graduate. However the phenomenon is too recent to truly measure whether the programs are financially viable. (Christiansen 2009)

Business and community leaders recognize such programs as valuable commodities, and the founders of a successful accelerator program can gain local or regional influence. Another more personal motivation can be enjoying the startup excitement without the startup pain. Many founders have been entrepreneurs of venture capitalists and through accelerators they can stay involved with the rewards of a startup, such as new technology, problem solving and innovation without the pain of constant stress and coping with minimal resources. (Christiansen 2009).

Value to the startups

For the entrepreneurs and teams applying for accelerator program the benefits are numerous. Funding is an important motivator for entrepreneurs to apply for accelerators, since it allows them to work fulltime on their startup. However, this has not been cited as the most important reason to apply. Most entrepreneurs are happy with funding sufficient enough to sustain them through the program. This seed funding reduces the entrepreneurs' risk. The amount varies between the programs. Some offer funding that keeps the teams alive through the program, and some an amount that will keep them running several months after it. It is important to note that not all accelerators offer this option at all. (Miller & Bound 2011, 26; Levy 2011; Chafkin 2009; Christiansen 2009)

Accelerators offer many of the same benefits as incubators such as technical help, but also a methodology to execute and a value system (Chafkin 2009). Another important benefit hard to replicate in the same profusion outside accelerator programs is business and product advice and feedback from professionals in tech industry, both from successful startups and larger companies (Miller & Bound 2011, 26; Chafkin 2009; Christiansen 2009). While teams generally have a strong vision for their product, they are often starting their first company (Christiansen 2009) and thus value also product specific advice. The accelerator may even be the first grounding to the very fundamental building blocks of business (Littlewood 2011). They are also wary of making costly mistakes that may harm their firm in the long term (Christiansen 2009). Many accelerator programs help the participant with the common problems of starting a business, legal, financial as well as hiring, public relations, marketing, pricing strategy among others (Christiansen 2009). Even though a company should be able to provide them itself, accelerator programs create pressure and discipline**,** a clear deadline and a framework to get there, an aspect appreciated even by experienced entrepreneurs (Miller and Bound 2011).

Accelerators give startup founders new connections to future investment, meaning introductions and face-to-face time with investors, who also benefit from the meetings and follow accelerator programs carefully. Often this level of access is very difficult to gain from outside the network of accelerators. For venture capital funds the reason for supporting accelerators is the new deal-flow they create by attracting talented people to form startups and increasing the overall number of good companies. For many accelerators the ability of their graduates to raise further investment is an important measure of success. The demo day, a common feature in many programs, is an important window for companies to present their idea and gain coverage and for angels and VCs to see many potential firms at once. (Miller & Bound 2011, 27; Levy 2011; Chafkin 2009; Christiansen 2009)

Many accelerators take care that the teams survive through the program but most firms will need capital to continue afterwards which makes them gravitate toward the program that can give them best connections to funding. The connections with investors are in many programs built in a structured manner through different events. In addition to the structured connections come networks built outside the official education. The better the program founders' networks are in the beginning, the better the program will be. As the program evolves the quality of the contact network will become proportional to the quality of the alumni. (Christiansen 2009)

In addition to the contacts to investors, accelerators also build the startup founders' network to outstanding and accomplished entrepreneurs, including the mentors, guest speakers and alumni. (Littlewood 2011)

Acceptance to an accelerator program validates the startup in the eyes of investors, media and potential clients. Naturally, the higher the program is regarded, more valuable the link will be. (Miller & Bound 2011)

The validation is connected to the value of the program brand is one of the more difficult aspects to measure. Christiansen refers to this as brand connections, value of which rests in a permanent connection, which includes identity and affiliation, alumni networks and sense of community. A program establishes its brand primarily with the success of their startups but also how they distinguish themselves from their competition. (Christiansen 2009)

Even though different meetups, drinks and hackdays are organized in startup communities, the programs are often intense but the intensity can create a sense of community where the other teams can be a peer support group to the startups during the program. Accelerators can also create strong alumni networks that actually offer meaningful support and advice after the program. The network can be a source of customers especially for business service firms, but also a network of talent that wants to work in startups. In addition, the program founders can point startup teams to alumni for special expertise. Also a strong alumni network can share experiences of investors and services. (Miller & Bound 2011; Levy 2011; Chafkin 2009; Littlewood 2011)

Value to other entities

It is important to note that accelerator programs may create value beyond the direct impact to the teams and the founders, creating a more vibrant tech company ecosystem.

Angel investors have been heavily involved with the accelerator scene. It allows them to make more informed decisions when due diligence is partially made by the accelerator during the course of the program. Also time and cost used to find new companies to work with is reduced when they can meet potential teams in numbers. They are also able to meet other investors. Venture capital firms (VCs) are less likely to invest into startups directly after the program but they do benefit from the improved deal pipeline creating more high quality teams, and as angels VCs benefit equally from meeting other investors and startup founders. Also they get a glimpse to the trends in the industry and new technology. Large technology firms support accelerator programs because they see potential new customers in startups using their technology, and potential talent recruit in founders. It also doesn't harm the corporate brand to be associated with supporting new businesses. In addition to large tech firms also service providers such as law, PR and accountancy firms see potential business development opportunities with new startups. Other startups outside the program want to boost their networks rapidly, scout talent and meet customers and later-stage investors that might be relevant to their businesses. (Miller & Bound 2011, Littlewood 2011)

Table 5: Key findings from accelerator studies

Critical success factors	*Sources of value: Accelerator to community*	*Sources of value: Startup to accelerator*	*Sources of value: Accelerator to startup*
• Accelerator - Founders and their background - Program focus - Distinctive and compelling offering - Program goals - Funding (resulting from goals) - Size - Education program (based on the program focus) - Brand - Global reach • Community - Investor presence - Experienced mentors - Deal-flow of potential startups • Startup team - Team ability and attractiveness - Business attractiveness	• Builds startup ecosystem • Fosters entrepreneurial spirit • Fosters networking • Educates growth entrepreneurs • High-quality deal flow for investors	• Successful startups establish accelerator track record • Financial incentive for founders • Founders may gain local or regional influence • Founders are able to experience the startup excitement without the pain • High-quality deal-flow for founders who act as investors	• Methodology and structure for execution • Pressure (from peers and mentors) and discipline • Business advice and feedback • Faster learning • Funding • Introductions and face-time with investors • Introduction to other industry insiders i.e. startup ecosystem • Risk reduction • Validation of the business and the idea • Press coverage • Connection to program brand • Access to networks and startup ecosystem • Alumni network

2.2.6 Critique towards accelerators

Since accelerators are a recent phenomenon, it is early to say whether their overall impact is positive. The number of accelerators has grown rapidly, with varying business models, focus areas, lengths and sizes and they have received criticism for several reasons. Miller and Bound (2011) list seven major points for which accelerator programs have received critique.

They only build small companies

First of all accelerators are blamed for only building relatively small companies. They have an incentive to support startups that do not necessarily hold global ambitions, but instead are looking to be acquired by larger companies, often to being only a part of their larger offering and not a company by their own right. (Miller & Bound 2011)

Diverting talent

By making entrepreneurship accessible, accelerators are also blamed for diverting talent from other high-growth tech startups, increasing the already great difficulty of startups to find and attract talent. (Miller & Bound 2011)

Companies still fail after graduation

Investors have expressed concern that the hype around some accelerator programs is distorting the view of how difficult building a successful business actually is and that after graduating good companies still fail, when they have to face the market, since they are still fragile and need to prove whether or not they are viable. (Miller & Bound 2011)

Exploiting startup founders

Some critics have blamed accelerators for exploiting startups founders by taking equity, especially in cases where the program team themselves lack experience and credibility as startup founders. In addition to taking significant equity without delivering much serious value, some accelerators have been blamed for forcing entrepreneurs to sign bad preferential terms that may make it difficult for subsequent investors to come in. (Miller & Bound 2011; Johnson 2011)

Attracting already struggling companies

There is worry that accelerators attract companies that are struggling and they won't succeed as well as companies that do not need help, and that this problem will be more severe if the number of accelerators grows. Accelerator program teams also have to make uninformed decisions since the fast application process does not offer full information about the applicant and also due to the fact that it is difficult to analyze the future success of a startup firm at such an early stage. (Miller & Bound 2011)

Creating a bubble

The accelerator phenomenon has been blamed for helping to create a bubble. If the programs start churning out small companies to be acquired by established technology companies by the thousands, there is the risk that the overall quality of ideas might be brought down. As a consequence a bottleneck might develop and in the event of a crash in confidence in the sector the value of the portfolios of companies supported by accelerators could shrink considerably. There is also discussion, which is the wiser way to invest in the firms, a large number of investments in different companies with the hope that few successful firms will come out, or a smaller number of highly targeted investments. (Miller & Bound 2011, Johnson 2011)

They're just startup schools

There has been some speculation that rather than viable investment options, accelerators are just startup schools, a reaction to shortcomings of university education system to build suitable technical and business founders. However Miller and Bound (2011) deem it unlikely that accelerator programs would accept teams that are only looking for a learning opportunity rather than planning on building a business. Still, the career benefits and validation from participating in an accelerator program may add security for aspiring entrepreneurs applying to the programs. (Miller & Bound 2011)

Other arguments have come up as well. Especially the most famous of accelerators, Y Combinator has been blamed for changing the balance between startups and investors. When before the entrepreneurs struggled to get the attention of VC firms and angels and after falling over themselves trying to impress them had to give sizable chunks of equity, now the angels are competing for the attention of startups. There has been talk about the “YC inflation”, higher valuations caused by an abundance of bidders. Also, the entrepreneurs can choose their investors, often relying on the advice of their network of alumni teams and advisors. In fact a controversy rose in 2010 after rumors of influential Silicon Valley angels having a meeting to agree on how to blunt Y Combinator’s influence. (Levy 2011, Ingram 2010)

Accelerator programs have sprung up around the world and they have been criticized for not taking into account the restrictions of location. The location is important for the entrepreneur when choosing an accelerator and can be problematic, since most entrepreneurs would like to stay where they have roots, but also maximize their chances of success. Relocating to participate can cause disruption in their social life, which can hinder the development of the business. (Christiansen 2009; Graham 2009)

A particular concern in Europe is that many of the new accelerators are too focused on their local market. Even in the US when establishing an accelerator, the founders must understand that it does not automatically invigorate the local startup scene. For the scene to flourish, there must be enough money and talent in the region for the graduated firms to stay. Funding startups is not a regional business, since firms at this stage are very mobile and tend to gravitate towards areas with critical resources. It is expensive to try to build these resources to an area. To fund startups in an area, you need to fund startups that won’t leave, and to do this you must either force the startups to stay, which will mean funding desperate startups with low potential, or fund them till they stay, which is expensive. What a city needs to have a thriving startup scene is angel investors, and unless they are already present in the area, they are difficult to attract from outside. In addition an accelerator program needs quality mentors with broad international experience or ambitions, or they will ultimately lack vision. Backing from local universities, government organizations and investors who are not technology entrepreneurs themselves easily exacerbates this problem. (Christiansen 2009; Graham 2009; Johnson 2011)

Follow-on funding can also prove problematic. Program founders need to understand the scope of commitment they are making into the startups they fund and how this will affect the firms' possibilities for follow-on funding. Christiansen (2009) points out the concern about the startups the program founders do not invest in, and how this will affect their follow-on funding. The lack of founder investments after the initial seed round (investment was one of the condition for Christiansen's study) can work as a warning signal to other investors about the prospects of the firm. This problem of perception is especially strong when the accelerator is funded by VCs with significant resources (which is why VC-backed incubators were excluded from Christiansen's study). When VC's are part of a larger effort and angel investors are in the heart of the program this problem does not exist, but knowledgeable startups should be wary of accelerator programs with a single VC backer. (Christiansen 2009)

2.3 Open sourced seed accelerator

2.3.1 Uniqueness of the open sourced seed accelerator

The most significant difference between the popular for-profit seed accelerator and the open sourced seed accelerator model is the fact that the latter does not offer funding to the startups accepted to the program to exchange for equity stakes in them. In this sense, the open sources approach is free to the participants. However in the open sources model used by Startup Sauna help is offered with accommodation, and there is prize money for the most successful teams, but these are perks that come without strings attached. Independence from public funding has been stated as the dramatic break the seed accelerator makes from previous models (Christiansen 2009), so in a way the open sources model takes a step into the direction of traditional incubation, which often is publicly funded. The open sources model offers all of its resources free to the startups accepted to the program. The idea is that all great startups are equal and should enjoy the benefits of an accelerator and that funding will follow at later stages. Since there is no investment and equity stake, also companies that are not ready for significant investment, or are still willing to bootstrap away without giving equity, have an accelerator option available. Since the open sources accelerator does not invest into any of its alumni, it keeps them in an equal position in the eyes outside investors. High potential is signaled outside by rewarding the best and hardest working teams publicly, and only if a team continuously fails to perform, will it be eliminated. However, since there is no money guaranteed, the entrepreneurs have to be willing to take a bigger financial risk, be it investing savings or leaving day-jobs, the open sources model runs a risk of reducing the startup founders' focus on the program. In a sense the open sources approach can be seen as a hybrid aiming to combine the public nature of university incubators with the dynamic business development of private acceleration programs.

The goal of the different models is eventually the same, creating successful, scalable businesses. Like for-profit accelerators, also open sources accelerators aim to developing firms that raise significant funding or exits. However the open sources accelerator only aims for the reputational benefit, creating an impressive track record to justify future funding and attract talent, both teams and mentors.

The open sources model also leans on networks of the program founders - successful entrepreneurs, industry professionals, and investors, and receives their volunteer help in the form of mentoring. The open sources seed accelerator operates within the same restrictions as others. It needs accomplished mentors and networks as well as a flow of quality applicants. In this regard, when defining the focus, offering and goals, and size it needs to operate within the confinements of its home region, having to take into account the presence of angel and VC investors as well as particularly strong industries in the region.

2.3.2 Open sourced seed accelerator value offering

From the review of previous literature a preliminary value proposition of the open sources seed accelerator to the startup is derived.

The value proposition of the open sources seed accelerator is three-fold. Firstly, it accelerates business development. The structured program enables faster learning by giving the teams methodology and structure to follow. The program management pressures the teams and the mentors push them to deliver. At the same time they are competing and learning from the other teams in an environment of peer pressure and support. Perhaps most importantly the startups get worked on by mentors or coaches, who themselves are experienced entrepreneurs or industry professionals. Compared to the profit-seeking accelerators, the open sources model cannot promise to reduce the risk of the entrepreneur by guaranteed funding. However, it offers acceleration without monetary expectation, allowing startups to continue with full ownership.

Second, the open sources accelerator gives the startups network access. They meet accomplished entrepreneurs and guest speakers, as well as other startups. The program can create investor contacts in a structured manner and with better access than startups outside the accelerator. In addition, the startups are introduced to a network of startups with similar background and hopefully a sense of community.

Third, a team graduating from a program has been picked from a large group as one of the most promising startups. Optimally, graduation gives validation in the eyes of investors, media and potential clients. The team can also associate itself to the program brand. During the program and especially the demo day the teams are likely to receive some level of media visibility. Based on previous literature, the following framework is proposed:

Table 6: The open sources seed accelerator value offering

Business development acceleration	Network access	Brand associaton and validation
• Methodology and structure for execution • Pressure and discipline • Business advice and feedback • No equity taken	• Introduction to startup ecosystem • Introductions and face time with investors • Alumni network	• Validation of the team, idea and business model • Association to program brand • Visibility and media coverage

3. RESEARCH METHODOLOGY

3.1 Case study method

The research is an empirical case study trying to explain the effects and value that an open sources seed accelerator offers to participant startups. The research aims to answer the question of how does the open sources seed accelerator facilitate the success of startups. The type of the question, focusing on "how", is explanatory in nature, thus making a case study a suitable method of research (Yin 2009).

The Startup Sauna program is the unit of analysis. The approach is a single case study (Yin 2009) where the Startup Sauna program presents the case. The case can be seen a revelatory (ibid.) in the sense that Startup Sauna is the first of its kind in Finland with no previous qualitative study done on the alumni teams. It can be argued that there are embedded units of analysis (Yin 2009), as teams are interviewed from all four batches of graduates at the point of writing. It is also a longitudinal case (ibid.) as the case is studied through the different batches. To avoid focusing on the embedded levels of analysis, the research tries to create discussion and make conclusions on the larger unit, Startup Sauna program, level.

3.2 Reliability and validity

To improve the reliability of the research, the research project is documented (Yin 2009). The reliability would mainly be affected by the researchers lack of experience, which, along with other possible limitations is explained in the limitations of the study. As the research contributed to a larger research setting, the researcher was able to practice briefly for the interviews and the first interview was conducted in participation with a more seasoned researcher. This should add to the reliability (Hirsjärvi & Hurme 2008).

3.3 Data collection and analysis

The research area of seed accelerators and open sources seed accelerators is relatively little studied and there is no previous study done on the accelerator in case in which case interviews can be a useful method (Hirsjärvi & Hurme 2008). Also, the study focuses on the motivations and experiences of the teams and so it was likely from start that the answers would be complex. Thus in depth, semi-structured interviews were conducted.

An interview guide was prepared where headlines covered different themes in the interview and below the themes were more detailed questions. The themes set the structure of the interview, but the sub-questions were not necessarily followed in original order if the themes were covered elsewhere in the interview. This allowed the interviews to be free from a strict structure and this way brings forth the experiences of the interviewees (Hirsjärvi & Hurme 2008).

The themes were (1) the challenges and success factors of the team, (2) motivation to participate and expectations for the program prior to participation, (3) experiences during the program, and (4) after the program. Free discussion and analysis of one's experience was encouraged. This way the person interviewed was able to formulate the experience by way of dialogue instead of just answering questions. In addition, to create open dialogue, the answers were handled confidentially, and quotations will be used anonymously to protect the privacy of the interviewees. As the research was part of a larger study effort, the guide was prepared to comply with the broader goals of the main research. Thus the interview material also had material not directly usable for this thesis.

As the research studies the effect of the accelerator program on startup teams, the data was collected from startup teams from Startup Sauna program. 10 entrepreneurs were interviewed from 10 different teams from the four Startup Sauna batches, two teams from spring 2010, two from fall 2010, three from spring 2011 and three from fall 2011. Seven teams came from Finland, one from Russia and two from Latvia. Teams from all the batches were chosen to give insight of the development of the program in time, with emphasis on the recent batches to give insight on the current situation. Also the ease of access to the teams and the availability of founders for interviews affected their selection.

The persons interviewed were either founders or co-founders in the companies and had attended Startup Sauna program. The interviewees chose the method of the interview to make it comfortable for them, face-to-face or via Skype or via telephone. However, due to the fact that the interviews were conducted as a part of a larger research setting in a multinational research team, the language of the interviews was English. This choice was supported by the fact that it is also the language of the program. The interviews lasted from 45 minutes to over one hour, depending on how talkative the person interviewed was. In addition it is important to note that especially the founders who had attended the earlier batches in 2010 had troubles remembering exactly when and why certain events had taken place. The interview guide was used for memory to help to ensure that all topics were covered. Since the questions were used to probe out more information on the topics, the change of topic could be done by referring to something mentioned earlier. This steered the interviews more in the direction of discussions instead of a dictated question-and-answer structure.

The interviews were tape-recorded after receiving the permission to do so, and the recordings transcribed for analysis. A content analysis was then conducted on the empirical data to find issues that the interviewees found important in the open sources accelerator. In the analysis the transcribed interviews were searched repeatedly for these reoccurring themes. These issues or sub-themes were then matched and grouped under three main themes. The preliminary value proposition as well as the research questions guided the search. However a new value proposition was created to reflect the data. Also, aspects critical to the success of Startup Sauna were found and presented.

In addition to the interviews, informal discussions enriched the data collected. As the topic of research is relatively little studied and lacks theoretical literature, in the discussion of the empirical material also inductive reasoning is used.

This study was sponsored by the Aalto University Center for Entrepreneurship and the material and results is used for internal and external communication of the Startup Sauna program, as well as publication purposes.

3.4 Limitations of the study

The study takes the viewpoint of the startup team entrepreneur, and thus only founders of Startup Sauna alumni teams were interviewed. In order to keep the amount of data at a reasonable level, the research willingly leaves out other operators in the startup ecosystem such as investors as well as the Startup Sauna staff. The study is exploratory and qualitative and gathers no data of the financial success of the startups. The conclusions made from the interviews do not offer directly comparable and transparent data to compare one accelerator to another. As the empirical data is collected from a limited amount of qualitative interviews from a single accelerator it creates a problem of external validity, if the results are generalizable beyond the immediate case study (Yin 2009). In addition the startup teams' internal and the founders' personal success factors and their possible effect to team success during and after the program are not analyzed.

As this research study is a Master's thesis, the research focus needed to be narrowed down and the amount of interviews limited to an achievable scope. More importantly, there are limitations connected to the researcher, namely lack of experience in conducting semi-structured interviews. To address this, the first interview was conducted together with a more experienced researcher.

Also, the interviewees might have affected the data. Even though the interviews were given anonymously, it is possible that they have been wary when talking about other people in the small startup ecosystem of Finland. Also investments in their own and other startups may be a topic that does not encourage free talk. In addition, some interviews suffered from technical difficulties, as the audio quality was bad in some Skype and one telephone interview. However, notes done during and immediately after the interviews helped alleviate this problem.

4. FINDINGS AND DISCUSSION

This chapter presents the empirical findings collected in the interviews with the alumni teams. The findings were divided into three main themes and further into sub-themes. The main themes developed from the findings are firstly benefits related to business development that occurred during the program. Second main theme was related to networking opportunities and network development enabled by the program. Third theme relates to association with the program brand. In addition, the findings present problems and shortcomings of the program that came up in the interviews. Based on the three main themes and the challenges, a revised theoretical framework is also presented.

As explained in the methodology, the founders interviewed for this study came from the four batches graduated from Startup Sauna at the time of writing. This meant that some of them had had almost two years between graduation and the interview and they openly admitted that they sometimes had problems remembering what had happened and when during the program. Also, they mentioned that since time had passed, they had difficulty making the connection between the program and certain events in their entrepreneurial careers. In addition, some mentioned that prior to the interviews they hadn't been very self-reflective about the Startup Sauna experience and the effects of the program. However the interviews gave interesting insight to the accelerator experience from the startup founder's point-of-view.

4.1 Business development acceleration

Business development acceleration aspects, mainly programmed events and coaching in a limited time period (Miller & Bound 2011) were emphasized in the scarce literature of acceleration. From the empirical findings it is clear that Startup Sauna has been effective and continuously improving in accelerating the business development of the participating teams.

4.1.1 Motivation and confidence

The founders came from companies in different industries and had varying levels of experience and development. Some teams had entered with little more than an idea and some had yet to incorporate. In general the teams were in very early stage, which was most likely the reason that Startup Sauna was the point when they started allocating more time to the startup. For these teams especially being accepted to an accelerator was a milestone that built motivation and commitment within the team, enabling them to develop their idea at a greater speed.

> *"I saw the biggest benefit as motivating our team and helping us to get more serious." Founder 9*

> *"Easily keeps your team motivated, a program like that." Founder 4*

Some teams also mentioned that graduating from Startup Sauna was the proof they themselves needed that their idea was actually worth pursuing, that it held real business potential. In addition, some founders mentioned the program building confidence and setting their goals higher. They stated thinking bigger and building global ambitions and goals instead of focusing mainly in home country or region. This may be especially important for companies in early stage, as the team may at first be working on the startup part-time and the founders still pondering whether or not pursue the idea full-time.

However, as one founder mentioned, early-stage teams with little experience need confidence and motivation, but at the same time, as they lack experience, their expectations need to be controlled to keep them realistic.

> *"I learned a lot, but it was also kind of pre-reality in sense that we hadn't incorporated yet, we hadn't faced kind of the financial realities of the cold world yet and you know going to Silicon Valley after all this was like increasing the hype and not bringing reality yet." Founder 3*

Even though getting accepted to a demanding two-month accelerator by showing potential in team and idea demands certain level of motivation and confidence, the interviews indicated that building the two were valuable bounties of acceleration. Firstly being surrounded by other potentially successful startups in a similar situation, and secondly being constantly tried and tested by the coaches to perform, seemed for many to be a final push to commit to the startup. Passing the program, even though it may mean major changes to the team or original idea, gave belief that the idea can actually have real potential. As Miller and Bound (2011) note, after graduation good companies still fail, which has been the case also with some Sauna graduates. However, the entrepreneurs still developed skills and confidence in running a startup, which again helps in possible future startup activities.

4.1.2 Coaching and programmed events

Intensive business advice and feedback by experienced coaches and guest speakers on both business and product-specific themes is an integral part of seed acceleration (Miller & Bound 2011; Chafkin 2009; Christiansen 2009). It was also one of the major expectations prior to the program as well as highly appreciated after it by the alumni teams. They acknowledged that Startup Sauna offers pretty much the best coaches available in the region, which is critical for the program brand and to attract the best teams. The coaches have credibility and are respected and successful coaches with different backgrounds and personalities also give the entrepreneurs example how different styles and types of startup managers can succeed. The startup teams appreciated the openness and willingness of the coaches to share their experiences from different situations and backgrounds.

The teams reported receiving valuable advice for example in product development, networking, legal issues and timing of funding rounds. Critical feedback from experienced entrepreneurs and investors was received as valuable and motivating. In addition to concrete advice, opinions and sharing experience, the teams reported that coaching was also a source of pressure. Many interviewees mentioned the intensity and high standard of the coaching as a push to deliver.

Since the teams that were interviewed for this thesis operated in different industries and as they had entered Startup Sauna program at different levels of maturity, it is natural that they had very different experiences of the coaching.

> *"Meetings with coaches there, it was very helpful to get different ideas from different perspectives. When you have more experienced entrepreneurs, even if you have very fluffy idea, they can already give you some feedback about it. And those were helpful discussions, and especially the most critical feedback we got was the most beneficial." Founder 9*

Startup Sauna is not strictly specific about the industries the accelerated teams come from. There are many web and mobile companies but also others from consumer services and medical innovation and technology. Seems that this sometimes has an effect on the coaching, as the coach's background and expertise does not quite match the team's business. At best the situation still creates good discussion and feedback at a more generic level. However at its worst it may also lead to situations where the match between the team and the coach is simply not good and communication may not be very productive. As teams put it:

> *"Even people who came from other industries and different backgrounds, they were still able to give very good, generic feedback on our business model and business idea." Founder 9*

> *"People have their very specific backgrounds and interests and all these kind of things, so the expectation can't be that OK, "this is for everybody" kind of thing." Founder 5*

Some founders described a great variation in the quality of the coaching sessions, mainly due to the mismatches. While many were excellent, there were also cases when a particular coach did not seem interested in the team or its industry. In this sense, when an accelerator does not operate in a specific business or industry vertical, and takes in teams in different phases of development it is important to ensure best possible matches between coaches and teams. This is the responsibility of both the startup teams and the program management to maximize the effectiveness of coaching. It seems that as Startup Sauna is very intensive and even though this is highly appreciated as a source of motivation and the teams work hard under the pressure, they may have problems keeping track of the programmed events. Even though it could seem obvious for the teams to ensure meeting all coaches themselves, the pressure may divert them. Prior to the program the teams need to learn about the coaches expertise and background and make sure that they meet the right people, and use the short coaching sessions effectively. On the other hand the accelerator management team needs to create a system that facilitates this and manage the interaction between teams and coaches. Bad matches may lead to less than optimal coaching sessions and lower perceived value of participation to the program. Bad preparation on behalf of the teams, and overestimating the preparation of the teams on behalf of the program management may reduce the overall effectiveness of coaching.

> *"But it's also a good exercise to find out about the coaches." Founder 8*

> *"There should be kind of a list or something to see that everybody meets everybody. Because not all teams met all of the coaches. A kind of a system, or a spreadsheet or whatever - and I'm not sure that all coaches were interested to meet everybody, I don't know, I'm just guessing." Founder 7*

> The teams felt that Startup Sauna is a very business oriented accelerator, pitching being one part of this focus. The focus on the business side puts teams in an equal position in the sense that it builds abilities that are needed in teams regardless of their industry or product development speed and phase.

"It's more of a business driven accelerator let's say. On the market side, sure we got our ideas, our concepts, our demo etc. in front of a lot of people and got a lot of feedback. So much about that market risk is not the product itself but communication of the product and all of these kinds of things you know, and I would say that was a huge help for us like on the market risk side. And as well we got a really strong response from some of the top guys in the world in our field and that always gives you an extra little boost." Founder 5

Important choice for accelerator management is the content of the education program (Christiansen 2009). In an open sources accelerator program it is virtually impossible to avoid some level of mismatch between particular needs of heterogeneous teams and limited availability of coaches and resources, and the orientation on pitching and getting funding was received with varying levels of enthusiasm. Some founders mentioned that they would have benefitted from technical advice as well, but at the same time admitted that it would be difficult to organize effectively. The same goes to deadlines. Common deadlines may be hard to set for teams with very different products and development cycles.

"It's probably on purpose that Startup Sauna is heavily focused on business development, where I felt that also our technical side would have benefited on getting some advice and understanding how to do the product development - that was probably on purpose missing. I think it could be helpful. But then, where you find those coaches, I don't know." Founder 9

It is important to note that when a program takes in firms in different phases, and especially early-phase teams, their needs may be very basic compared to more mature firms. As Christiansen (2009) states, teams should get both business and product specific coaching. Balance between the two in an open sourced setting is difficult. As the interviews were an opportunity to be self-reflective about the accelerator experience and analyze their learning in hindsight some founders from the first batches pointed interesting needs of inexperienced teams. Firstly, they mentioned the need for the early-stage teams to analyze their idea and really question its market potential a lot more before focusing on pitching it.

> *"Coaching is really focused and emphasizing pitching - but I think there is much more. It's off course important that you're able to pitch but there is much more that you have to do." Founder 4*

> *"I think much more emphasis should be on thinking, and that's just my opinion, thinking the actual problem and is that a real problem. Whether it's a consumer mobile application, thinking is that a real, real problem. And the coaching should be helping it out and challenging it a lot. So thinking about the problem and the need in the market. And then building the product." Founder 4*

Also, they felt that their teams and others were in the time of the program not ready for investment. Instead, some founders felt that they could have focused more on building traction and finding customers instead of focusing on how to raise funding.

> *"Many of those teams were similar in that sense - getting investment, that was something that in hindsight I would have left out totally. You know, just getting that traction, I think that's the number one thing. If you don't have it, you shouldn't think about investment at all." Founder 3*

Secondly, as they lack experience, some founders expressed a need for actionable advice. A team attending the program may from feedback understand what needs to be worked on but may not know how. In other words, some founders felt that their teams could have benefitted from less academic and more hands-on approach to the coaching.

They brought up the possibility have workshop-type practice with other teams, where more time would be reserved for giving and reacting to feedback and improvements. In addition a few founders brought up the need to understand metrics, and practices in which they would have to prove the validity of their idea on the spot. However here again, they acknowledged the difficulty of building coaching sessions to fit every team's particular needs with different phases of development and product types. One founder spoke in length about actionable advice and how the understanding of their own limited skills had come in hindsight:

> *"I think it was basically too kind of theoretical, even though they tried to be hands on. So we did have - 1-to-1 or one coach and one team type of meetings, we had a lot of those, and that was nice. But the problem was that it was all the same. Everybody asked us the same questions, you know, "what's your business model, tell about your product, what is the value proposition". And because we didn't go into like actionable specifics, they basically just said that "OK, good stuff guys keep going" or "you have this problem" or whatever." Founder 3*

> *"If I'm thinking about value added, and thinking about it as an accelerator, I personally would add more like actionable workshops. And for me it was too academic." Founder 3*

Continued on the same thread, some founders felt that the teams would benefit more of coaching focusing on asking questions rather than giving answers. This would make the teams figure things out themselves and find a way most suitable for them.

> *"I think it's always good to go back to the framework and the experiences others have had - and really be challenged by a wide range of people with a wide range of views and, you know I think that's usually valuable and*

ultimately it's up to the entrepreneur to kind of make sense of it and decide which path to follow." Founder 5

"I think it's really important that you're coaching the teams to realize themselves and explore themselves and finding the answers." Founder 4

The teams as a whole had a very high appreciation for the coaches and their experience and valued the opportunity to receive feedback and critique from experienced entrepreneurs. Also in this sense the open source approach impressed the founders as the coaches were committing their time to the startups without direct financial incentive. Some founders reported ongoing relationships with coaches, continuing after graduation. However one founder pointed to the fact that Startup Sauna is operating in still developing startup ecosystem of Finland. Also, the teams have different goals and ambitions, as some are aiming directly to Silicon Valley and looking for exit, and others are taking a different, more life-style oriented approach to entrepreneurship.

"But a lot of the times you give absolute answers to a team, and you might not know the answers, and the world might seem really different from outside of Finland, so that might be one challenge." Founder 4

Some founders reported the importance of a structured program as a source of focus, as they reported how difficult it is in a startup to prioritize an abundance of seemingly important tasks. The focus was in a sense two-fold. Firstly, important for experienced and first-time entrepreneurs alike is the pressure and discipline created by the programmed events and the coaches, pushing the teams to deliver at an accelerated speed. It is important to help the teams to focus on the most critical aspects of their offering when working within a limited time period.

> *"We were able to execute really fast when you had deadlines and you wanted to show yourself and the other teams and the coaches that we were working like hell." Founder 4*

However the teams acknowledged that as with coaching, also deadlines might be hard to set for teams with very different product development cycles. Mobile and web-based teams were able to develop a lot during a few short weeks, whereas technology startups may have difficulties delivering prototypes or ready products come Demo Day.

In addition, the intensity, fast pace and drive to meet deadlines supported by coaching helped the teams to shape and simplify their offering and focus on its core elements. Some teams reported as a major benefit that during Startup Sauna they were able to shed unnecessary parts from their idea.

> *"Coaching was very beneficial, especially how to simplify what we are doing. To understand us, we all had background in big companies with lots of resources – I'd say we understood how simple we have make our application even though we failed to execute making it simple enough." Founder 9*

The coaching and other programmed events create a structure for the teams to follow. Even though some founders reported difficulties to adapt to quick changes in program or arranging meetings with coaches, in general they appreciated the fact that the program forced them to deliver certain components in short time periods and better channel limited time and resources to more achievable goals.

4.1.3 Peer pressure, support and competition

On one hand the program structure and the coaches push the teams to develop and deliver in a limited time period, but it is equally important to note the atmosphere at

Startup Sauna that was described as one of friendly competition. The interviewees appreciated the situation where they were surrounded with other teams in a similar situation and shared characteristics, which allowed them to interact with others, share war stories and ideas and receive feedback from peers. It is also an opportunity to give back to the community, and help other teams in one's area of expertise. The teams, even though very supportive to each other also try to outperform each other, competing for the best Demo and best team and the prizes for good performance. Peer pressure and friendly competition were described as the culture of Startup Sauna.

> *"I think one of the most important things was not something that's sort of in the curriculum but the fact that there are other teams around you working on their startup and doing stuff, getting ahead, so it creates sort of a run for the target because you see that the others are moving ahead, you have to move even faster. So it's a friendly competition, I think that's very good for you to find that kind of atmosphere." Founder 8*

> *"And it was also very good to like spar your idea with others. And I enjoyed also helping others, especially on the business model side where I am more experienced." Founder 9*

The interaction between the teams was described as friendly, helpful and mutually beneficial, but as peer pressure and support was seemingly important and valuable, it puts pressure on the selection process.

> *"When looking at other startups there was somewhat varying commitment – how people were working on their startup. That some were extremely professional and hardworking and some were more like hanging out and kind of not so serious." Founder 9*

As the positive peer pressure was so important in creating an inspiring environment and accelerated development, some founders expressed critique towards others that were not working as hard. As the teams that were committed to the program acknowledged, there were a lot of teams that applied to the program and did not get in. They felt that if you did not participate fully, you should not participate at all and let someone else benefit from the program instead. Teams not using the opportunity to the fullest send a wrong kind of message about the program and have a negative impact on the accelerator as a whole. During the program they have a negative impact to the other teams, negatively affecting their mentality of hard work and misusing the privileged position of getting coaching. They also may give the wrong signal to the coaches who, after all, volunteer to help the teams. In addition they are not using the opportunity to the fullest, likely decreasing their chances to succeed. All these effects are harmful for a new accelerator program still building its brand and track record of successful companies, especially in an environment such as Finland and the surrounding areas where the amount of funding, quality teams and coaches are limited.

To maintain this kind of atmosphere it is important during the selection process and the program to emphasize to the applicant teams that the program is intensive and demands commitment. It is important to make sure that they understand that if they are not able to commit full time and bring along most of the team, it is perhaps not a good idea to participate at all. Teams that do not work as hard as others, or do not take the program seriously weaken also the experience of other teams and harm the program causing it to resemble a “startup school” as Miller and Bound (2011) describe a situation where the teams only use the program for a learning opportunity. In the open sources model this risk is especially big as it is free to the participants without investment to follow. High performing and motivated teams on the other hand push others to work harder, increasing learning and adding to the overall experience.

4.1.4 Free acceleration

Christiansen (2009) states that funding from an accelerator is ideally enough to get the firm to its next milestone, and the equity stake the accelerator takes in return as low as possible while the program still meets its financial goals, but as Miller and Bound (2011) noted, funding was not the most important reason for teams to apply. Some level of funding was a source of motivation but also it was a way of reducing the entrepreneurs' risk (Miller & Bound 2011, 26; Levy 2011; Chafkin 2009; Christiansen 2009).

The fact that the teams are receiving open sourced acceleration, meaning that they graduate without losing equity, came up surprisingly seldom in the interviews, even though the quality of the coaches and the program in general were highly regarded.

Since no investment is made, the open sources model does not reduce the entrepreneurs' risk in the same way as the for-profit accelerator does. This makes it harder for some founders to commit full-time as they need to continue in their day jobs or work part-time on other projects during the program. However, in certain situations the virtually free acceleration was mentioned as a strong incentive to apply, either to retain full ownership or to avoid the possibly difficult negotiations of shares. Also, after receiving acceleration without losing equity, applying to another program may not seem so beneficial anymore.

> *"We have applied for* [another accelerator]*, we got in, but we didn't go. And to several others, but the problem is that they're taking equity. And that's why we think Startup Sauna is cool, you guys don't take anything, but others are taking 8 or 10%. And if we look at* [our team]*, we don't want to give such equity, because* [we have] *clients and product. If we would do it, like go to* [another accelerator] *or whatever, we would do it*

> *as a first incubator. But it didn't make sense after Startup Sauna to go anywhere and give equity." Founder 6*

As Startup Sauna does not offer funding to participants, some teams were combining the program with part-time work. Even though an accelerator program should be a full-time effort, in an environment with limited deal flow only accepting teams that are able to commit and work 100% on the startup for six weeks could mean leaving out high-potential teams and ideas. Several teams reported that they did not get full advantage out of the program, since the whole team could not participate fully. This was not seen as fault of the program though, but the Startup Sauna should stress the intensity of the program to increase the preparedness of the teams. In this case effectively combining both puts pressure on program management to create a structure that teams can adjust to.

> *"Quick changes in schedule or like last minute information of what's happening when and where, it was kind of challenging to adjust to that. So having like 1 or 2 weeks ahead visibility what's expected and what is happening would have been very helpful." Founder 9*

Problematic with this model is the different living expenses between Finland and Baltics and Russia, creating restrictions of location (Christiansen 2009; Graham 2009). Relocating to Finland is relatively expensive for some teams and caused them to leave some members behind and thus limiting the effectiveness of the program. Thus the university setting could perhaps be used more to the advantage of resource-strapped teams to provide accommodation.

In the case of Startup Sauna, as it operates open sourced and does not fund the startups, they must endure high risk, which, as the findings indicated, adds to the stress the founders have, which also may lead them to combine accelerator time with other work. In some cases it also meant that only a part of the team participated. On the other hand, especially teams that felt they were too early stage to raise funding felt that Startup Sauna was a good fit for them, and teams willing to bootstrap or already creating some revenue may benefit especially from the free acceleration. For Sauna it can be a good way to differentiate from other European accelerators, and is suitable for the current startup ecosystem in Finland, but may also appeal especially to early stage teams, in which case it may take longer for them to raise major funding, thus slowing the emergence of successful companies.

4.2 Preferential network access

Accelerator programs seek to build strong startup networks in their regions and also globally. Strong networks of program founders give the program graduates preferential access to networks compared to startups outside the programs. The ability to build and maintain networks affects the program's long-term success through the alumni and how they use it, and the network grows stronger if the alumni companies are able to survive, grow and succeed.

Networking quickly came up in the interviews. It was both motivation to apply and expectation prior to participation, and also one of the most significant benefits mentioned after graduation. One aspect was the opportunity to meet qualified coaches and get one-to-one feedback and advice, covered in section 4.2.1. Other aspects were the access to investors and startups, as well as other actors in the startup world, together forming what the interviewees described as the startup ecosystem.

> *"You have all the leading kind of startup people in Finland are basically involved with the program. And whether you find the perfect match or you get all of the feedback, it's a very good feeling to know that you've talked to most of the people you want to talk to here." Founder 5*

4.2.1 Introduction to startup ecosystem

One of the accelerator benefits to region in general is ecosystem creation (Christiansen 2009) which to the participating startup should turn into networks that include investors, outstanding and accomplished entrepreneurs, including the mentors, guest speakers and alumni (Littlewood 2011). In the case of Startup Sauna, network access and introduction to the ecosystem were especially important. This seemed a consequence of the still developing ecosystem of Finland, the fractioned ecosystems within Europe, and the background of the entrepreneurs interviewed for this study, which together meant that many of them were able to expand their networks significantly in the program. Especially for founders working on their first startup, the introduction to a wide array of startups and other actors is important as accelerator participation opens preferential access to high levels of entrepreneurs and investors, incorporating the entrepreneurs and their company to the startup scene.

Startup landscape of Finland and the region was seen as somewhat hidden, even though lively. An entrepreneurs' background in larger corporations may have kept them from interacting with startup companies, entrepreneurs and investors, and the program was described as a gateway of sorts. For first time entrepreneurs it revealed a more appealing and vibrant reality, where the seemingly independent operators could interact actively. The European startup ecosystem is not one uniform entity and founders outside of Finland had mostly kept to their home countries. Also, as some teams had rather clear plans of their business development prior to the program, networking was a major motivator for participation.

> *"And off course seeing the ecosystem and networks, it's a little bit hidden if you work for a big corporation, you don't see startups that much. So it was very encouraging to see other startups." Founder 9*

> *"I would not say that the connections are most important, but more like the comfort it gave that there's a community around." Founder 9*

> *"We sort of had the clear road map ahead of us and we had to execute it. So basically getting some more coaching and networking effects in this Startup Sauna were more important to us than working more on the idea." Founder 8*

Founders also mentioned startup Sauna's connection to the wider regional startup scene. In addition to applicant teams, especially on the investor side the program has some pull outside of Finland.

> *"It's not even limited to Finland. It has opened my eyes to a lot of the regional stuff, Swedish investors and European investors in general and London investors are coming over. So that something that was kind of a complete black hole in my mind – I was familiar with the scene in the Valley, so you know, opening up all these European connections, I think that's really important as well." Founder 5*

In addition to the Finnish and regional ecosystems, Startup Sauna is also connected to Silicon Valley. As the Valley seems to be the almost inevitable goal to ambitious startups, a planned and structured introduction was something the interviewees valued. The possibility to earn a place on the trip was mentioned as a major motivation for participation.

> *"I didn't have such a deep network in Finland in the startup community, or I had some kind of network but meeting everybody here, that was huge. Just to meet people, just to have the discussion and then off course the trip to the Valley was also, it was amazing." Founder 5*

"When we heard that we get into Startup Sauna we decided that our primary goal is to get to Silicon Valley, just because it would be fun to go there. It gave us also better image that how advanced they are and how many companies are competing in that space. And we would not have done that investment to go there without Startup Sauna. Just the funding, and that you have some sort of structure that you do there, I think it's also very beneficial." Founder 9

Even though Silicon Valley's position as the most important startup hot spot was not denied, some founders also brought up the possibility to bring along markets close and far that are less known, namely Nordics, China and even Latin America. Other Nordic countries were seen as lively startup scenes that could be easily visited without interfering much with the program structure. Cooperation with the more exotic locations was seen as a possibility to differentiate the Sauna offering from US accelerators and an organized way to enter markets that are more difficult to access independently from Finland and the region.

"It's very much constructed towards Silicon Valley and the US – OK off course it's the most important market but that's also something that you can easily find stuff on the internet, but now that Sauna has some connections to the east, say China, it would be interesting to hear more about that - it's definitely not so much talked about as Silicon Valley." Founder 8

"We are really heavily geared towards Russia, Poland, Baltic countries but why not Sweden, Norway, Denmark, where are they?" Founder 9

Startups are not a regional business and a region needs enough talent and money to attract and retain quality startups (Christiansen 2009; Graham 2009; Johnson 2011). The regional approach was appreciated, and it may be an aspect with great development potential in the future, as it is something that can be distinctive and compelling to startups.

The introduction to a wider startup ecosystem was mentioned as one of the major benefits gained from Sauna. However, introduction to the ecosystem can also be described as exposure, as larger companies may seek talent from early phase startups. Resource-strapped startups with uncertain future may have little other compensation to offer outside independence and opportunity to work for yourself. Miller and Bound (2011) bring up the difficulty of recruiting talent to startups, and that accelerators may divert talent from startups by making entrepreneurship too accessible.

In the case of Startup Sauna, one founder reported a case where one team member was headhunted during the program, but others mentioned the potential of the program to recruit talent themselves. Also as startup entrepreneurship is risky, founders valued the network creation as a future asset in case they would some day be looking for a job. Startups have very hard time recruiting talent. It takes a lot of time and resources, both very limited commodities of startup managers, and talent may not be willing to work for equity or lower pay. In addition, all teams brought up the importance and difficulty of picking the right people to work with. As the program operates within a university setting, using the student base to bring together startups and talent or just helping the resource strapped teams during the program could be investigated to improve the recruiting effect:

> *"And one thing which is extremely difficult for a startup is to recruit top talent. So I'm wondering if it would be somehow possible to facilitate that process so that even during SUS you could easily get the kind of try-out working with some other people who are interested in your startup, even students if they are interested in startups, offer them like an internship or traineeship in the startups." Founder 9*

As a whole most teams felt that the deep network of relationships was one of the most important benefits of participation. The founders felt that Sauna is a complete introduction to the ecosystem of Finland. It is also important to note that the teams should be encouraged to maintain and use the networks independently to maximize their effect.

> *"I have a feeling some of the relationships we made through the course of Startup Sauna will turn into strong business relationships some day. As of now, I think none of them have. But I met a lot of good people and have ongoing relationships and I'm sure something will materialize when the time is right." Founder 5*

> *"That's really something important, because you never know even if this doesn't work what we do now, I'm probably going to be working on another startup, or something else, but it's always good to know these people, because now I can contact them more freely. And also that what they taught us about how to sort of maintain these kind of contacts." Founder 8*

4.2.2 Introductions and face time with investors

An integral part of the accelerator value proposition is the introductions to investors. The level of access gained during most programs would be very difficult and slow to build outside an accelerator. For investors the programs and their demo days offer an opportunity to view numerous new firms in interesting industries, potentially increasing high-quality deal-flow. For the accelerator programs, successfully bringing together startups and investors, ultimately leading to investment is a way of measuring success. (Miller & Bound 2011, 27; Levy 2011; Chafkin 2009; Christiansen 2009)

Startup Sauna teams were able to build strong networks to investors, both angels and VCs during the program and reported also a good level of continuous interaction after graduation. Event though the program is by no means a guarantee for funding, it clearly offers access to levels of investors that would be very hard to reach for a startup operating on its own. Importantly, even though many teams felt they were during Sauna way too early stage to actively seek funding, they felt that it was good to gain experience and receive feedback from investors early on, building confidence for serious funding rounds in the future. Though the situation might be different in Silicon Valley for example, in Finland startup funding seems to be scarce in the very early stage, and better available when product or prototype is out or when it has traction.

The founders frequently mentioned easy access to VC and angel networks as an expectation prior to the program and as an important benefit gained during it. Especially the local investors are well presented.

> *"It helps if you're raising funding in Finland – they all come to visit you." Founder 4*

> *"I don't believe that we would have been able to generate that many VC meetings without Startup Sauna Demo Day." Founder 9*

> *"If you go through Y Combinator you have better chances for funding and stuff like that but I think SUS is not so far behind." Founder 8*

Some founders mentioned also the connections to investors outside of Finland. Sauna has connections to London-based investors who come to the Demo Day and one founder mentioned the connections provided by the trip to Silicon Valley. They could be built by the entrepreneurs themselves, but as the first quote illustrates, building the same level of access would take time and luck. Also it seemed from the comments that the network is still building, since the perception of the network was improving from the earliest batches towards the latest.

> *"Nowadays they have a good bunch of VCs flying from London to the demo day. So building presence. I don't think that that's a – it doesn't solve any of your problems but it helps you and makes it more efficient. Especially more efficient because if you have to agree all the meetings separately with the London VCs, it takes hell a lot of time." Founder 4*

> *"I've been there [in Silicon Valley] a bunch of times, but you know, just the quality of the meetings and networks and discussion – it was amazing. We were meeting some of the tier-1 VC's and stuff, you just don't get access to that." Founder 5*

Some founders had the mindset that at the time of the program their companies were still too early-phase to seriously look for funding, but that they had first negotiations with investors earlier than they otherwise most likely would have.

> *"We would have probably postponed - investor meetings, so we now, thanks to Startup Sauna, we had already then investor meetings, and it encouraged us to generate ourselves also more investor meetings and get their feedback, understand how they see our idea, and if it's really worth pursuing the idea." Founder 9*

From the early investor meetings the teams, though themselves feeling that they were too early-phase for investment or having such feedback from the coaches, they had the opportunity to get feedback directly from the investor side and in general learn about that world, which in turn built confidence for future and possible investment rounds.

"Having more meetings with those [investors] was definitely important, because now it's something I have done before, so it's way easier the next time when you really are looking for funding." Founder 8

Even though the early meetings were beneficial in this sense, to the founders Finnish investors seem reluctant to make risky investments to teams based only on the idea and that in general their impression of the investor scene here is very different from that of Silicon Valley. They felt that the situation here puts more stress on raising institutional funding, bootstrapping or attracting paying customers.

"We have discussed with several VCs and business angels and it seems that they want to see the product out before they want to, before they are willing to commit more." Founder 9

"I don't think it's the fault of Startup Sauna itself, it's just that the ecosystem is in the beginning here in Finland and the angel scene is very much in the beginning as well and there might be some investments going on directly, but I think it's mostly indirect you know, the benefit." Founder 3

The biggest shortcoming that the interviewees saw in the investor contact side of Startup Sauna program was the lack of investment directly attributable to or following immediately after the program. Even though the connections made were useful in the aforementioned ways and their future potential acknowledged, some founders wondered where the disconnect was, and whether or not it was a problem. The common perception was that the investor scene in Finland is not very fruitful for very early stage startups without existing customer base and traction, which may cause startups to seek funding outside of Finland more actively. One founder especially spoke in length about this phenomenon:

"I don't know if there is a lot of startup funding going on in Finland. I'm not talking about huge scale, but you know there are a lot of startups here. Why haven't investment community invested in startup companies, I don't know. If I had money I would have invested in the top-2 companies that were in our group. Why nobody invested in them, and they're going to close investment overseas, I don't know." Founder 5

"This is the big thing why Y Combinator and these other things – when you go there, you're guaranteed funding out of it. That is the filter and I would assume that that is the goal the guys want to get here. And obviously it depends on the quality of startups overall. I can only speak of what I saw in my group and definitely there were some really good entrepreneurs and really good startups I thought. So that's one area, how the actual money connects to the startups." Founder 5

"The contacts were great. The quality – you know you want to meet a broad spectrum. It's just a matter of does the deal come out of it in the short term. It didn't for us, it didn't for others in our group. So the investor quality was good, the contacts were good and then it's how do you kind of cross that bridge." Founder 5

This supports the claim by Miller and Bound (2011) of the difficulty of raising funding in Europe. In the case of Startup Sauna one must note that the program is new and thus it is early to make judgment of its effect on funding the alumni receive. So far the alumni have been able to raise funds with some success (Borella 2012). However the effectiveness of the whole accelerator phenomenon remains a question (Christiansen 2009).

It is somewhat problematic to compare Startup Sauna with Y Combinator due to very different methods, resources and operating environment, but it seems that startup founders are quick to make this comparison. In general they seemed quite mobile and willing to relocate after markets and funding. It is important for the program to stress to the teams the opportunity they have and their own responsibility in finding ways to use it. Again, direct connection between graduation and investment in the short term may increase as the program matures and if it builds a track record of successful alumni, possibly encouraging investors to make riskier investments. In addition, as some founders mentioned, after a while it is increasingly hard to see what is directly attributable to the program. However as some founders brought up, the Demo Day is also for investors a good opportunity to observe a number of companies which may increase the possibilities for all of them to attract funding. Rather than trying to make connections indicating investment directly following from participation, at this phase is important to point to the network creation and experience gained in the program.

4.2.3 Alumni network

Earlier research on accelerator programs emphasizes the role of the alumni network as a source of support after the program, and an asset that the program managers can use to educate new firms. Also, alumni network may be a source of customers or employees. Unofficially, the teams can share experiences on startup life. (Miller & Bound 2011; Levy 2011; Chafkin 2009; Littlewood 2011)

As became evident earlier in chapter 4.1.3 about interaction with between teams during the program, it was a major positive factor in terms of learning and networking. An active alumni network could potentially be a source of great value to individual startups, the accelerator and larger startup ecosystem as a whole also in the long run. Based on the interviews the teams in Startup Sauna have a strong sense of community during the program. However after the program, even though the tie is still there, it seems to become weaker and interactions more random. Even though there still is a shared sense of belonging to a network and the founders feel that they could turn to other alumni for advice, they did not report actively engaging with other alumni much. Mostly it was based on more or less random encounters at Aalto startup events or even Silicon Valley, and general sharing of news and experiences. At its best they were introductions for Silicon Valley trips, or help with forming a company in the US. Several founders expressed the will to participate to Sauna activities and said they would appreciate arranged events to activate the alumni. Also, even though there already are a significant number of graduates, the views of the founders indicate otherwise. This sentiment could be affected by the great variety of the alumni startups as well as the fact that the program has operated only two years.

> *"The alumni's seem to remember that, hey you were in Startup Sauna and it immediately creates a bond." Founder 9*

> *"Maybe there is [an alumni network], but it is not strong yet. It could be nice to meet in these Startup Sauna Demo Days. We went to the last and we saw some alumni teams. Somehow we have to arrange real in-person meetings, events… It would be much better. I would say there is a network but it's not strong enough." Founder 6*

> *"Probably it will get more important in the future when there's a bigger network, as there's only very few startups incubated through Startup Sauna." Founder 9*

Activating the alumni could add to the value the program brings to new teams. This could mean bringing experienced and successful alumni to participate in the educational part of Startup Sauna, and also more strongly guiding the new teams to contact alumni, especially if they are operating in similar industry or sharing mutual challenges.

"And why not even coaching by the alumni? Maybe not the fresh graduates but those who have been around for some time afterwards." Founder 9

Startup Sauna operates in multiple countries, and even though it is definitely a strength in collecting a number of potential applicants, it seems that the alumni network has yet to catch up to the program's internationality. As interaction post-Sauna is mostly chance meetings in startup events, the teams seemingly interact mainly within their home country.

"Those who are abroad, they kind of go there and you don't have much interaction with them." Founder 9

One thing about the alumni network that seems to be working quite well is spreading the word about the program. As the teams have been generally satisfied with the program, they are eager to recommend it to other startups. The word-of-mouth seems especially strong in the Baltics where alumni reported actively recommending the program. It seems though, that most interviewees felt that Startup Sauna is most beneficial for teams in very early stage, even though also other views were brought up.

"I've also made references to a lot of people to go to Startup Sauna as well. Even experienced people." Founder 5

Very early stage of applicants may then have an effect on the time between graduation and investment. The founders expressed the feeling that batch-by-batch the teams have been more developed and closer to a stage of significant funding rounds. Sense of closer connection between participation and funding could enhance the program's significance as a source of identity. As there is willingness among the alumni, the program could act as a facilitator or activator, to get the post-program networking more active. This could also happen by bringing in the alumni to share their experiences of successes and failures, or guiding the new teams to contact alumni directly. Again, utilizing the network may sound obvious, but based on the interviews it is not very active among the current alumni.

Seems that the alumni network is an aspect of Startup Sauna at the moment utilized at a suboptimal level. During the program the teams were in pretty active interaction, sharing ideas and helping each other. As a part of the larger ecosystem, the founders indicated that the connections made to other alumni had turned to friendships and could possibly some day turn into business relations. However, so far there does not seem to be an active utilization of the startup experience of more seasoned teams by new applicants and graduates. Even though the alumni indicated will to participate in the program and community around it, after the program the contact with other teams becomes more random. As Christiansen (2009) suggests, the quality of an accelerator's network increases as the program evolves and the amount of alumni grows. Even though this can be expected with Startup Sauna also, especially as the teams continue to develop products and raise funding, the program could also work to accelerate and enhance this development. It is also possible that the new teams' eagerness to use the network may be stronger in programs that are more focused on certain industry verticals and teams. The next 2-5 years will start showing the signs if the first two years have produced successful startups and they may start growing larger. Also, the program will have more alumni teams in different stages within the businesses and industry verticals it serves, giving more examples for new startups to learn from and contact. This will then show better how active and beneficial the alumni network will be.

4.3 Association and validation

For the program brand to benefit the teams, the program needs to build a strong brand by its own actions. At the same time accelerator programs usually build their name through successful alumni. Connection to a strong accelerator brand will give a valuable reference for unknown firms, as well as belonging to a community, strengthening their position in the eyes of investors, media, potential clients and other startups.

4.3.1 Association to program brand

The founders noted that Startup Sauna has been very quick and effective in building its brand. Some mentioned the regional aspect that Sauna uses, that it is not just Helsinki or Finland, but aims to be a major European startup hotspot. Its problem seems to be that in Finland and the regions nearby it is already somewhat known, but outside it doesn't yet provide validation. As the comments show, the program would benefit from a track record of significant funding rounds or exits, and even though there are already some very positive signs, building this takes time and realistic expectations should be set at least a few years in the future. From the program's point of view, as alumni succeed it should try to keep them close and engage them as much as possible to facilitate this association between success and the program.

> *"And I think Startup Sauna's big handicap is that it's somewhat unknown, that if you would be in 500 Startups or Y Combinator, that everyone would know it, but in Startup Sauna it's still building the brand and it's starting to be quite good in Finland and Baltics, but if you go to US or anywhere outside this small region, it's rather unknown." Founder 9*

> *"Definitely you need to have big teams with major exits, that's how it would happen. But off course it takes time. I think Startup Sauna has done already incredibly good job in building the brand in such a short time, and I really like the idea that you don't bring just Finland but it's a region." Founder 9*

Another potentially beneficial effect of association to an accelerator brand is general publicity. The visibility aspect of Startup Sauna program is strong in Finland, has some clout in the region nearby, but does not yet reach far outside. In Finnish terms the program and especially its Demo Day have great pull, and the local startup scene and media are well presented which may help with investor, customer and recruitment contacts. It can also help build the founders' personal media contacts for further use after graduation.

> *"Well being in Startup Sauna it was quite easy to get into Arctic Startups and that's off course a start because it's a pretty good." Founder 8*

> *"Getting presence in Finland as a whole, it's a really easy way and fast way to get exposure in Finland, meaning potential customers – I mean general publicity to the company." Founder 4*

4.3.2 Validation of the team and idea

Validation of the team and the idea in the eyes of investors, media and potential clients is proposed by Miller & Bound (2011) as a direct benefit of accelerator programs. The validation stems from the connection to the program brand, which includes identity and affiliation, alumni networks and sense of community (Cristiansen 2009). Christiansen (2009) notes that a program needs to build a strong brand quickly, even though it is hard to measure. Christiansen (2009) continues that the brand will come naturally if the program is able to recruit the best startups and they succeed. However it is also important how the program differentiates itself and how it gives back to the community. In the case of Startup Sauna, the open sources approach is strongly built on giving back, as the coaches volunteer and the program is free without investment for equity. As much as the structure may be a consequence from the public funding and a solution to regional restrictions of Finland and Northern Europe, it also sets the model apart from the traditional, profit-seeking approach pioneered by the first generations of seed accelerators such as Y Combinator and Techstars.

Startup Sauna program as a source of validation came up in the interviews, but to a much lesser degree than business development and networks. The program is new and still building brand and recognition, especially outside the home region, but from the earliest batches to the most recent, the founders showed increasing faith into this aspect of the value offered.

> *"It's a really good reference when you can say that 250 companies applied, 15 were selected and seven best ones were selected to the Silicon Valley trip. So definitely that tells something that you are among the like selected group of startups." Founder 9*

The amount of applications to the program has been growing, and it has been able to push down the acceptance rate (Borella 2012). Also the alumni have showed that they are able to raise funding and grow (ibid.). Hence it is likely that graduation from Startup Sauna may become increasingly valuable as a reference.

> *"It validates more broadly than just the idea. It validates the startup, like the team, team's capability to execute, the quality of the idea and what we have done. And it's one of those few references that we have. As a new company you obviously don't have any references." Founder 9*

The Startup Sauna brand is strong in Finland and growing stronger outside it as the alumni mature and new applicants come from different locations in greater numbers. As able as the program is in building connections and creating visibility, its biggest handicap at the moment is that it is young, and still establishing a track record, with major successes and exits of alumni teams still in progress. In the eyes of the alumni, this limits the strength of the connection to the brand. However, the funding raised so far (Borella 2012) indicates that alumni teams may start building the brand in the future. In general the regional approach strengthens the brand, as it is not a Finnish accelerator but a regional one, based in Finland but with a larger reach and global ambitions.

An important part of validation already came up in chapter 4.1.1 about building confidence. As the interviewed founders talked about validation, they brought up that the program actually validates the team and idea to the team itself. In very early stage teams, they may have strong doubt of the ability of the team to deliver and the potential of their business idea. The interviews indicated that many times success in a program and the feedback it gives actually installs a stronger belief to the startup. In the case of Startup Sauna, it also gave some teams a much grander vision of international and global success, as it brings the teams in contact with successful entrepreneurs and investors.

Visibility as such was seen as a consequence of the program brand and the team’s success in the program. The teams saw it more as an added bonus than as a goal itself. In this sense too the program’s reach was regional. Also, as the teams come from different industries, they value different types of media, game companies prefer game blogs while medical technology might prefer some other type of publication. This could also be a point the program management could look into. Before each batch see what medias are the most useful for the upcoming startups and seek to build new connections this way.

4.4 Critical success factors

It is important to point out some factors that have affected the development of Startup Sauna and its relatively quick rise to a well-known and respected seed accelerator.

As the findings already brought up, the coaches at Sauna are well respected by the teams. The opportunity to meet, get feedback and learn from accomplished coaches is an extremely important motivator for applicant teams. Also, the coaches need to be motivated to create beneficial interactions during the coaching sessions. Otherwise the teams may not see benefit in the program and may receive counterproductive advice.

Investor networks are another critical aspect that the open sourced accelerator needs. It is not investing in the companies itself and even though institutional funding might be available for very early stage, eventually they will need investments from angels and VC funds to grow. Also, funding is needed for the program to build a track record of building successful startups to attract quality applicants in the future and create an alumni network. If they are not present in the area, they are more difficult to attract from the outside, so local investors need to be activated.

The intake and application process of the accelerator need to create a pipeline of potential companies. Quality applicants are needed to keep the coaches and especially the investors motivated to return to the program. Also, high quality teams push others harder and facilitate the atmosphere of friendly competition. If the accelerator operates in a region where the amount of quality teams is limited, it might not be able focus on a narrow industry vertical, even though this approach allows to build more focused education programs. Also, it might take in teams in very different phases of development. Startup Sauna has accepted teams from different industries to accommodate the most talented entrepreneurs and potential teams.

If the teams come from very different industries with varying product development cycles, it needs to build an education program to match very different needs and be equal to the companies. Even though the teams interviewed for this study admitted that a program cannot match everyone’s needs, bad matches between teams and the program and coaches’ expertise and interests can negatively effect the overall acceleration experience.

Keeping alumni engaged and close is important for the program. Firstly, it maximizes the network building of new teams. Secondly, more experienced alumni can be used to educate new entrants. Third, as it may take years after graduation to succeed, if the teams are kept close and the connection to the program alive, it will facilitate building a program's track record of success.

Even though the program needs to be quick and effective in building its brand, eventually it is up to the success of the alumni teams to demonstrate true success.

4.5 Revised theoretical framework

Based on analysis of the empirical findings the following framework is drawn. It describes the value an open sourced seed accelerator creates to startup teams.

- Firstly and most importantly, the open sourced seed accelerator puts startups in a new environment of fast development in a group of other selected startups. Accelerator programs make the teams work hard and this way build their confidence and motivation.

  During the limited time-period experienced entrepreneurs and industry professionals push them hard to develop and deliver and coach them on both business and product-specific aspects. The accelerator program helps teams to focus on delivering and developing the core aspects of their product, and gives them structure and deadlines to follow.

  The teams are surrounded by other highly motivated startups, that both help each other and compete with each other. Peer pressure pushes the teams forward in a motivating environment and optimally creates an active community of entrepreneurs.

  The open sourced model is free, meaning that startups do not have to give equity in exchange for acceleration.

- Second aspect of the accelerator value is preferential access to networks. The teams are introduced to successful entrepreneurs, other new startups, industry professionals and investors. They have access to VC and angel investor networks and are able to pitch their idea and receive direct feedback from them. They also enter a community of program alumni with a shared identity through graduation from the accelerator program.

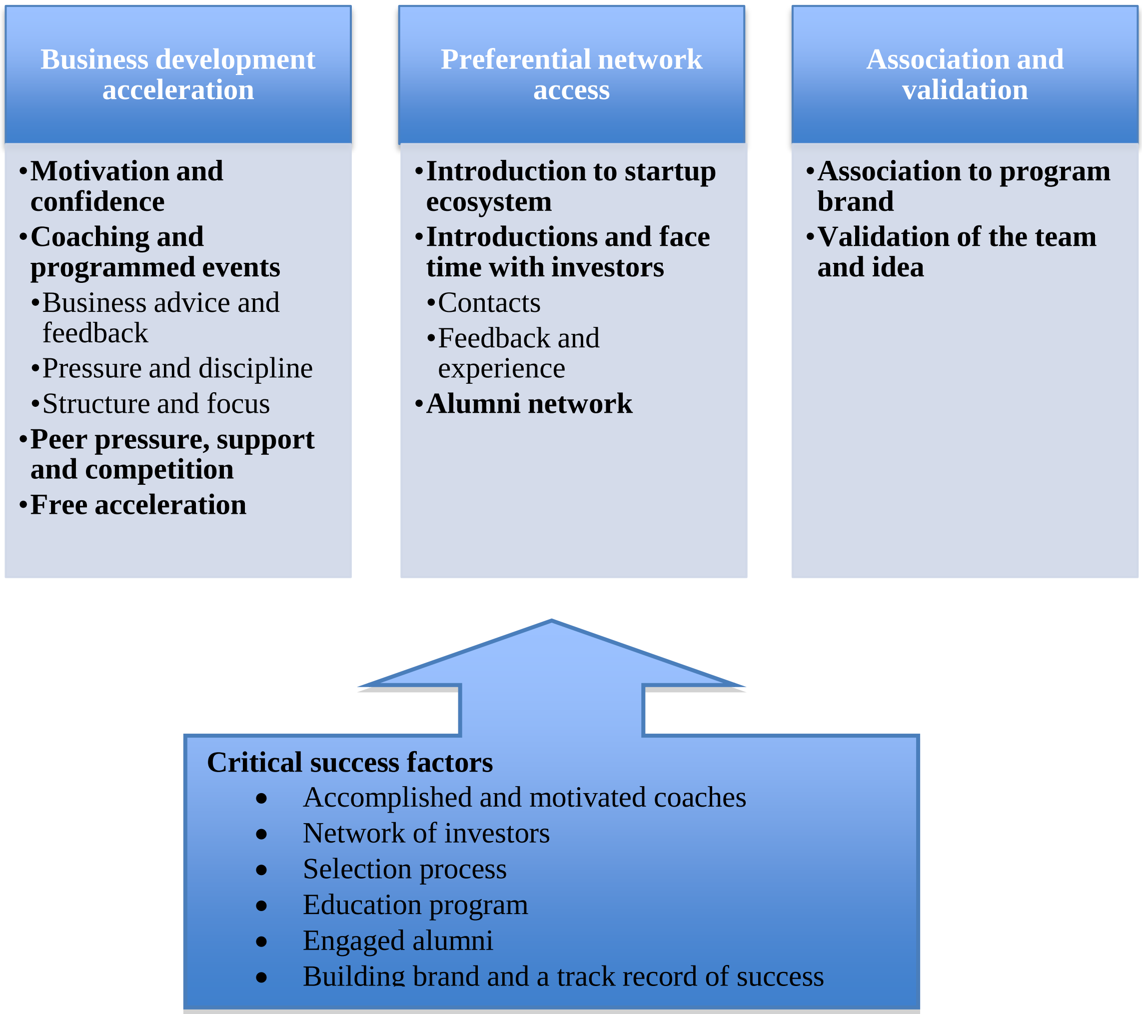
- The third aspect is the association to the program brand and validation it offers. The teams that graduate from programs are among a selected group of startups, reviewed during the application process and the program, which offers validation in the eyes of investors, clients and recruits. The program brand gets stronger and demonstrates success through the alumni.

- The critical success factors to build this environment start with networks. The accelerator needs accomplished coaches with international experience to give credibility. Furthermore they need to be willing to coach without direct financial interest. The accelerator needs angel and VC investors, preferably in the area it operates in since getting them to the area from the outside is much more difficult.

  To keep coaches and investors motivated, the program needs to build a selection process with a good number of quality applicants, and pick teams that are ready to commit without guaranteed investment. If it does not focus on a specific industry vertical, it is important to build the education program so that it keeps teams with very different product development cycles in an equal position where all are able to make progress and benefit from the coaching.

  Furthermore, the accelerator should keep alumni engaged and motivated to contribute to the program. This is especially important when they start to gain success, as they are examples to new applicants, and can share valuable experience and demonstrate success of the program to investors and applicants, thus contributing to its brand.

Table 7: Revised framework of open sourced seed accelerator value offering



5. CONCLUSIONS

This chapter presents the main findings and conclusions and gives recommendations for Startup Sauna management as well as recommendations for further research regarding Startup Sauna as a case and the open source acceleration model.

5.1 Main conclusions

Startup entrepreneurship continues to be a topic of public conversation in Finland. Startup Sauna has been operating since 2010 as the first seed accelerator in the country. It is also significant as it has been able to carve out a unique hybrid model of acceleration, balancing elements of publicly funded university incubator and private, profit-seeking seed accelerator. The goal of this study was to find out how an open sources seed accelerator creates value to participating startups and how Startup Sauna has succeeded in this goal.

Based on the interviews, the program is creating unique value to startups it educates. It accelerates their business development, putting them in a disciplined program that pushes the teams to deliver. They are able to compete with and learn from other ambitious teams. Most importantly, they get worked on by successful entrepreneurs, and access to knowledge very difficult to find outside the program. The open sourced approach does not take equity. As the program avoids narrow industry verticals and takes in teams in different phases of development, it puts pressure on creating a program that creates unique value to very different startups. It also poses challenges of match making between teams and coaches as well as keeping the quality of teams high. The empirical findings supported the theory in this aspect.

Secondly, the program manages to give teams preferential access to networks. Here it is important to note that the program needs to take into account restrictions and strengths of the region it operates in. In the case of Startup Sauna, it is in the phase of network building, and the potential effects it has had on the local ecosystem and investments in the alumni startups are only slowly starting to show, as teams are raising funding and the alumni network growing in numbers and influence.

Also at this point Startup Sauna is building the program brand that creates value through association. A program can build the brand by itself, but eventually its strength depends on the success of the alumni.

As it takes time for graduate teams to raise funding or otherwise demonstrate success of the program, it is also important to point out the role Startup Sauna has as a part of the Aalto University startup community and the startup ecosystem in Finland. It has quickly gained a position among the most well-know European accelerators growing its popularity outside Finland and hosting one of the largest demo days on the continent. Building a more active startup ecosystem and networks has raised startup entrepreneurship in public discussion and media, and can this way contribute to building startups also outside its immediate reach.

5.2 Recommendations for Startup Sauna

As became evident during the interviews, Startup Sauna has taken major steps of improvement in every batch. It has pushed down the acceptance rate, improved the quality of applicants and grown more international (Borella 2012). Based on the first four batches the following recommendations are given to Startup Sauna management to look into as possible points of development.

- Make teams work prior to Sauna, so that they analyze their development needs and know who are the most important coaches for their startup.

- When both teams and program management recognize their needs, best matches between team needs and coach's expertise can be made.
- As the teams are under a lot of stress, practicalities are important; a booking system for meetings with coaches would be useful.
- Early-stage teams value hands-on, practical advice and workshop-style practice could be increased.
- During selection process, emphasize the intensity of the program, and prefer teams that are willing to commit full-time and bring the whole team. They get more out of the program, work harder and push other teams.
- A structured program with little last-minute changes helps teams balance participation with other commitments.
- University facilities could be used to support migrating teams that have problems with the living expenses in Finland.

- Continue building network in the Valley and in Europe – the introductions are highly valued.
- Follow the alumni teams on funds raised, employed resources, possible exits etc. and report their success frequently. This shows the connection between Startup Sauna and funding.
- Harness the open sourced, "giving back" mentality and activate and engage the alumni to maintain a more active network. It can build the Sauna brand and create a more active and uniform regional ecosystem.
- Especially entrepreneurs with greatest successes and failures could be valuable as guest speakers, even coaches. Connect new teams with alumni more; alumni may have unique expertise in certain fields.
- Recruiting talent is challenging, but an active network may alleviate this.
- Interaction with the teams and students interested in startups could be increased.

- Brand will provide more validation with major funding rounds or exits by the alumni. As this may take years, it is important to keep the alumni engaged and emphasize the successes.

5.3 Recommendations for future research

This research has elaborated on the scarce literature covering seed acceleration. It has collected empirical findings on how startup teams perceive and experience the benefits accelerators try to create. Based on the empirical findings, a framework of open sources seed accelerator benefits was created. The framework offers a view on the value accelerators build, and offers insight on the building blocks of a successful accelerator. The study also presents an alternative model of seed acceleration. The open sourced model used by Startup Sauna can be seen as a hybrid of publicly funded incubation and profit-seeking seed acceleration, and gives insight on this new generation of seed accelerators. This study can give some insight on the aspects a region or a city needs to build and open sourced accelerator.

An important aspect of researching the effect of Startup Sauna would be a longitudinal quantitative study on the alumni teams. It would be interesting and important to track for example their ability to raise investment post-graduation, as well as the development of revenue and headcount, and compare the results with other startups outside the program. On the qualitative side mapping the accelerators effect on the wider community and startup ecosystem in Finland and region could give valuable insight on the effects of seed acceleration spilling outside the alumni teams. It could be done among program stakeholders or startups outside the program. In addition, this research only refers to the critical success factors of building an open source accelerator. Their significance could be further studied.

6. REFERENCES

Aaboen, L. (2009). Explaining incubators using firm analogy. *Technovation* 29, 657-670.

Aernoudt, R. (2004). Incubators: Tool for Entrepreneurship? *Small Business Economics* 23, 127–135.

Aerts, K., Matthyssens, P., Vandenbempt, K. (2007). Critical role and screening practices of European business incubators. *Technovation* 27, 254–267.

Bergek, A., Normann, C. (2008). Incubator best practices: A framework. *Technovation* 28, 20-28.

Bollingtoft, A. (2012). The bottom-up business incubator: Leverage to networking and cooperation practices in a self-generated, entrepreneurial-enabled environment. *Technovation*, doi:10.1016/j.technovation.2011.11.005

Bollingtoft, A., Ulhoi, J. (2005). The networked business incubator—leveraging entrepreneurial agency? *Journal of Business Venturing*, 20, 265 – 290.

Borella, P. (2012). Startup Sauna: Accelerating Startups from Northern Europe and Russia. Available at http://startupsauna.com/en/contact/press/ (Startup Sauna Survey Summary).

Bruton, G. (1998). Incubators as a Small Business Support in Russia: Contrast of University-Related U.S. Incubators with the ZelenoScientific and Technology Park. *Journal of Small Business Management*, January 1998.

Chafkin, M. (2009). The Startup Guru, *Inc*. June 2009. Available at http://www.inc.com/magazine/20090601/the-start-up-guru-y-combinators-paul-graham.html (8.3.2012).

Christiansen, J. (2009). Copying Y Combinator. Available at http://www.scribd.com/doc/19982837/Copying-Y-Combinator (8.3.2012).

Dee, N., Livesey, F., Gill, D., Manshall, T. (2011). Incubation for growth – A review of the impact of business incubation on new ventures with high growth potential. London: NESTA.

Dettwiler, P., Lindelöf, P., Löfsten, H. (2006). Utility of location: A comparative survey between small new technology-based firms located on and off Science Parks - Implications for facilities management. *Technovation* 26, 506–517.

European Comission (2002). Benchmarking business incubators. *Brussels*.

Frenkel, A., Shefer, D., Miller, M. (2008). Incubator programmes: Privatizing the technological incubators in Israel. *European Planning Studies* Vol. 16, No. 2.

Graham, P. (2009). Can you buy a Silicon Valley? Maybe. Available at http://www.paulgraham.com/maybe.html (12.3.2012).

Grimaldi, R., Grandi, A. (2005). Business incubators and new venture creation: An assessment of incubating models. *Technovation* 25, 111-121.

Hacket, S., Dilts, D. (2004a). A systematic review of business incubation research. *Journal of Technology Transfer*, 29, 55-82.

Hansen, M., Chesbrough, H., Nohria, N., Sull, D. (2000). Networked incubators – Hothouses of the new economy. *Harvard Business Review*, September-October 2000.

Hirsjärvi, S., Hurme, H. (2008). Tutkimushaastattelu: Teemahaastattelun teoria ja käytäntö. Gaudeamus Helsinki University Press, Helsinki.

Ingram, M. (2010). AngelGate: Who's thinking about the startups? GigaOM, Sep. 21. 2010. Available at http://gigaom.com/2010/09/21/angelgate-whos-thinking-about-the-startups/ (18.4.2012)

Johnson, B. (2011). Are Europe's startup accelerators speeding out of control? *GigaOM*, Jul. 18. 2011. Available at http://gigaom.com/2011/07/18/are-europes-accelerators-speeding-out-of-control/ . (18.4.2012)

Kauffman Fellows (2011). Incubators in US and Europe – Speed and scale in capital formation. Slideshow available at http://www.slideshare.net/dgiluz/accellerators-in-us-and-europe . (17.4.2012)

Levy, S. (2011). Y Combinator is a bootcamp for startups. *Wired Magazine*, June 2011.

Littlewood, M. (2011). Do we need Startup factories? Notes on NESTA's round table on European acceleration programmes. *The Business Leaders Network*, June 21st, 2011. Available at http://thebln.com/2011/06/do-we-need-startup-factories-notes-on-nestas-round-table-on-european-acceleration-programmes/ (19.4.2012).

Miller, P., Bound, K. (2011). The startup factories – The rise of accelerator programmes to support new technology ventures. London: NESTA.

Mubarak Al-Mubaraki, H., Busler, M. (2010). Business Incubators: Findings from a Worldwide Survey, and Guidance for the GCC States. *Global Business Review* 11:1, 1-20.

OECD (1997). Technology incubators - nurturing small firms. Paris: Organization for Economic Cooperation and Development.

Peters, L., Rice, M., Sundararajan, M., (2004). The role of incubators in the entrepreneurial process. *Journal of Technology Transfer* 29, 83–91.

Phan, P., Siegel, D., Wright, M. (2005). Science parks and incubators: Observations, synthesis and future research. *Journal of Business Venturing*, 20, 165-182.

Ruohonen, J. (2007): VICTA – Virtual ICT Accelerator,
Technology Review, July 219/2007. TEKES.

Scillitoe , J., Chakrabarti, A. (2010). The role of incubator interactions in assisting new ventures. *Technovation* 30, 155–167.

Tamasy, C. (2007). Rethinking Technology-Oriented Business Incubators: Developing a Robust Policy Instrument for Entrepreneurship, Innovation, and Regional Development? *Growth and Change* Vol. 38, No. 3 (September 2007), 460–473.

Voisey, P., Gornall, L., Jones., P., Brychan, T. (2006). The measurement of success in a business incubation project. *Journal of Small Business and Enterprise Development*, Vol. 13 No. 3, 454-468.

Yin, R. K. (2009). Case Study Research, Desing and Methods. 4th edition, SAGE Publications Inc., Thousand Oaks, California.

7. APPENDICES

Appendix 1: The interview guide

1. Your Startup

• Brief background of the startup

• Current situation

• What are important factors for your/ any startup to succeed?

• What are the main problems faced by you in establishing your startup?

• Different stages (The idea/ the company/ the prototype/ commercialization)

• How did you manage; the process/ the team/ investment?

• Have you faced legal and organizational obstacles?

• Have you protected/ or in the process of protecting IP?

2. Before Sauna: Why come to Startup Sauna

• How did your team discover Startup Sauna?

• What was your image of Startup Sauna prior to participation?

• What were the expectations from Startup Sauna? What did you want to gain?

• And Why specifically Sauna (why not another accelerator)?

3. During Sauna: How did Startup Sauna help?

• What are the main changes in your startup post SS?

• How did startup sauna help you?

• What was the impact of Sauna on your business model/ idea?

• What was the impact of Sauna on your plans for the future (team and personal)?

• How was your interaction with investors during Sauna (were they interested to invest)?

• How was Sauna participation's effect on investor interest in your company?

• Did your team build investor networks?

• What did you expect from coaching/the coaches?

• How was the overall quality of coaching? And how did it affect your company?

• Did Startup Sauna create new networks? / Is there an active alumni network? / Did you use it?

• How was the Demo Day quality?

4. After Sauna: Improving Startup Sauna

• How would you evaluate Startup Sauna as a seed accelerator?

• What was missing in Startup sauna?

• How would you improve Startup Sauna? (increase investor/ potential teams awareness, improve coaching quality, Demo Day etc.)

• What kind of networks do you find valuable?

5. Rating

Rate on a scale of 1 – 5 (1: least helpful/ Value and 5: most helpful/ Value)

• Impact of Sauna on your Startup

• Investor contacts

• Coaching Quality

• Alumni Network

• Demo Day Quality

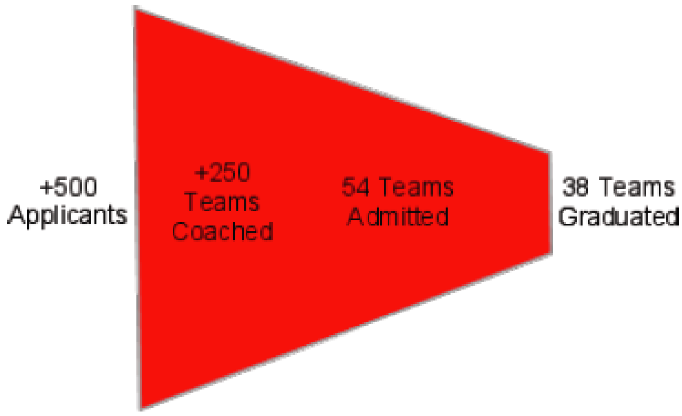
• Overall Startup Sauna Program

After the interview the founders were asked to rate the program for use in the larger research setting. For this study the results were used only to give additional insight.

Appendix 2: Startup Sauna teams

At the time of writing there is no database collected of all Startup Sauna batches. To give an overall impression, the main findings of Borella's (2012) study, and the graphs depicting them are presented. The study was conducted on the first three batches during fall 2011 and winter 2012.

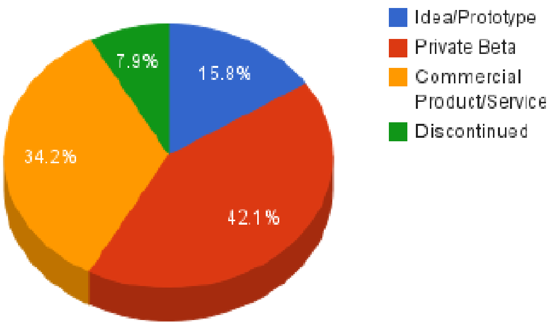
- The first three batches received over 500 applications
- When the Warm-up events are included, over 250 teams had been coached
- 54 teams were admitted with an average 11% acceptance rate (23% spring 2010, 7% fall 2011)
- 38 teams had graduated (7%)



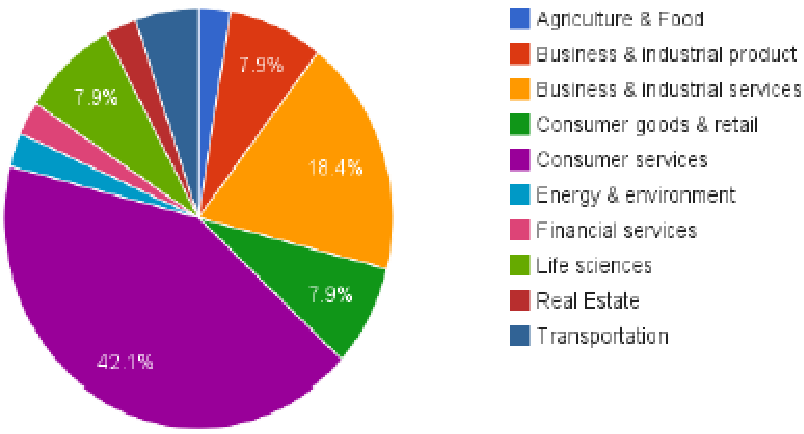
Survival rate of the teams was following:

- 71% alive
- 11% stealth
- 18% discontinued

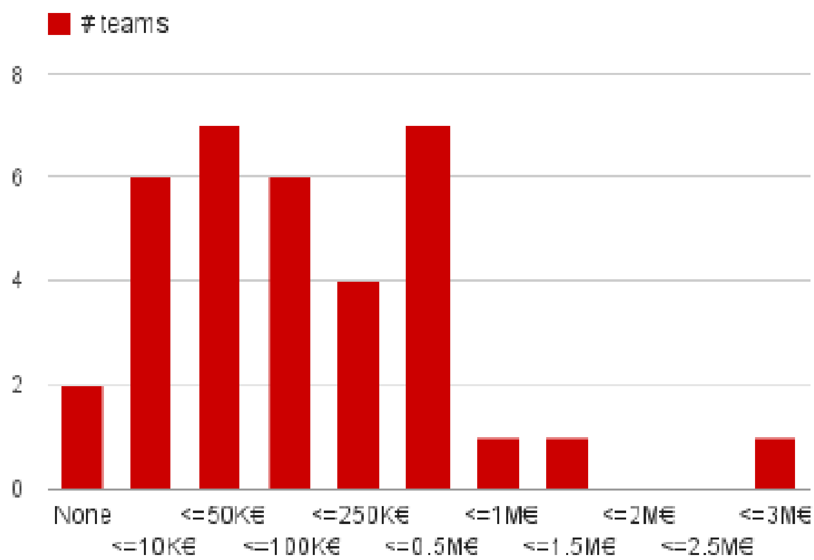
76% of the teams had completed a viable product, most of the after the program:



An analysis of industry segments showed a broad range of industries, with predominance on Business and Industrial Services (i.e. web services).

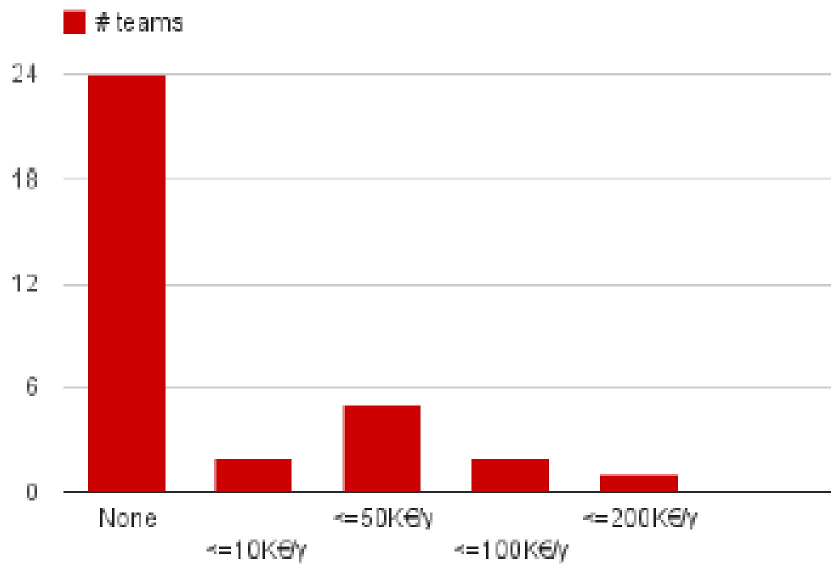


At the time of the study (October 2011) only two teams had failed to raise funds, while most of the teams had raised funds up to 500K€, with three teams managing more, one slightly below 3M€.

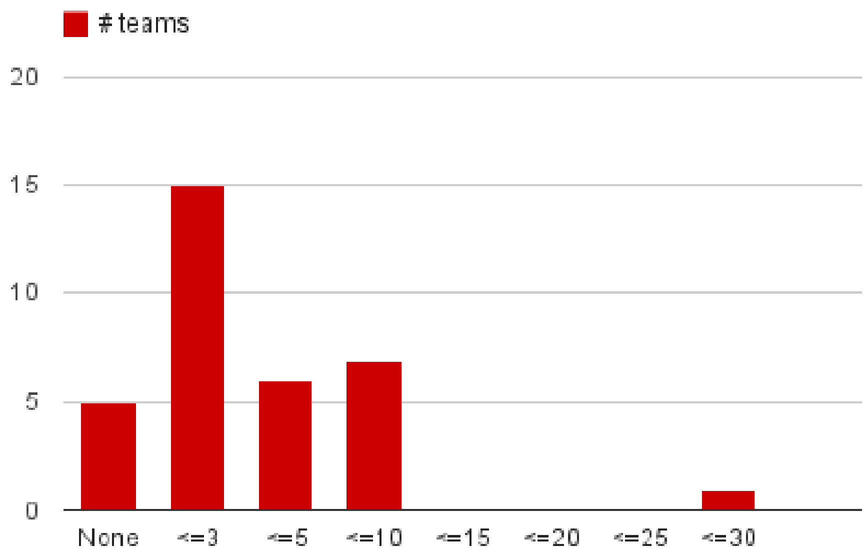


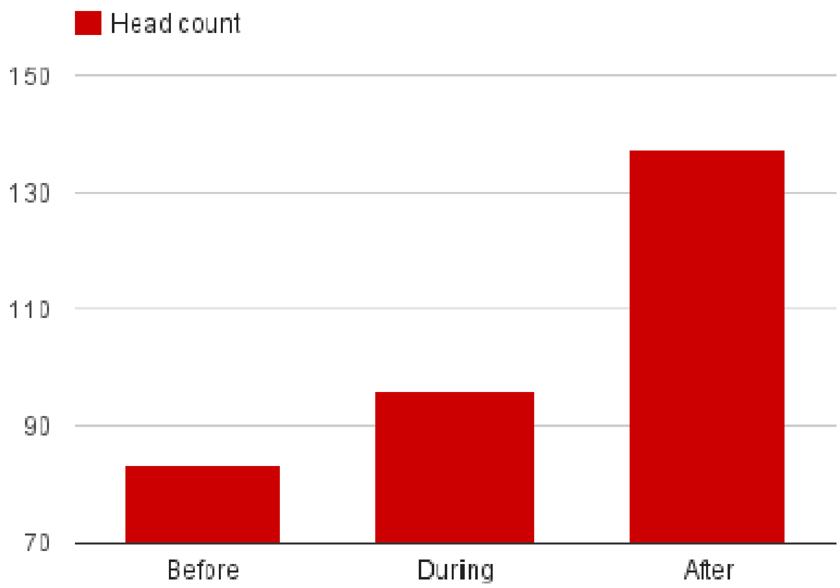
11 teams managed qualified financing events of over 250K€ within one year of graduation. By October 2011 only one exit had been achieved with a transaction of 100% in stock.

10 teams were collecting estimated revenues for an overall of 420K€ per year (yearly revenues based on last quarter sales figures). Most of the teams seemed to be focusing on customer development rather than monetizing early.



Headcount spread showed most teams with a staff of three, with 14 teams grown beyond that, one up to some 30 people. Overall headcount employed by teams grew 15% during the camp and 65% after graduation.




Head count
150
130
110
90
70
Before
During
After