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Start-up Ecosystems and the Role of State and Municipal Support Agencies: Finnish and Israeli Comparisons

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In this age of constant change and internationalisation, start-ups can be a compelling and agile force that boosts economic growth. This thesis will explore the concept of a start-up ecosystem and the role of the state and municipalities in facilitating and nurturing successful dealing with start-ups based on a comparison between Finland and Israel.

The relevance of this work emphasises the fact that the development of innovative ecosystems constantly ongoing. The goal is to explore what Finland can learn about supporting and developing innovation and start-ups from the Israeli example.

The elements of a thriving start-up ecosystem were studied and compared with the Finnish ecosystem. This research is conducted using descriptive and qualitative method analysis, including an in-depth interview with the representative of a Finnish organisation that closely works with start-ups.

The results indicate that the Finnish (Espoo) start-up ecosystem is well-organised and promising. Nonetheless, the ecosystem struggles to reach a global market and build sustainable cooperation between ecosystem partners and other countries. Compared with Israel, Finland needs to attract more foreign investments and talents and organise a competition among local start-ups to encourage them to compete for the most significant municipal support. Further openness, creating networks and Government involvement in the start-up world will enrich the Finnish ecosystem.

Keywords	Start-up, Ecosystem, Israel, Finland, Innovation, Support

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1 Introduction

International experience shows that the countries that have chosen the path of innovative development today occupy a leading economic position globally. Every year, the Global Innovation Index ranks the innovation performance of more than 130 economies worldwide. According to the Global Innovation Index 2020, Finland ranks 7th in the rank of 49 countries globally in terms of innovation development and high-income economies. At the same time, Israel ranks first among the top 3 innovation economies in northern Africa and the western Asia region (Cornell University et al., 2020).

Finland's start-up ecosystem is already quite multifaceted. Nevertheless, due to the uneven distribution of the infrastructure and support, it is still developmental. The start-up sector plays an essential role in developing the economy of any state. Start-ups are a powerful source of the development of new products, services, technologies. Further, start-ups create a large number of jobs and flexibly adapt to changes in markets. (Rupasingha & Goetz, 2013).

Start-up entrepreneurs have emerged as a phenomenon all over the world, including Finland. However, becoming a founder of a start-up is one of the most challenging journeys. Young entrepreneurs can create breakthroughs that will play an essential part in our future. Nevertheless, they lack the experiences to establish a business. As a result, many potential start-ups fail because they have not received proper support. The topic of start-ups is current, and the recent rise of two Finnish unicorns, Rovio and Supercell, could encourage others to follow the start-up dream.

This research investigates the difference between Finnish and Israeli ecosystems. Further, this study explores the ways of municipal support agencies in all stages of the process to facilitate the fulfilment of start-ups' potentials and boost their chances of success. These are critical elements because high-growth start-up firms are recognised as potential drivers of growth, innovation, and productivity gains for advanced industrialised countries (Gornall & Strebulaev, 2015).

This study verifies that a start-up ecosystem is poor when some ecosystem components do not work to their full potential. Today, the level of economic development of the country directly depends on the degree of innovation activity. Scientific and technological progress plays a crucial role in competitiveness in the global market system. Therefore, Finland's transition to innovative development is one of the top priorities.

The second chapter of the thesis explores the start-up definition and all elements and features of that. Based on a solid literature review, the third chapter explains the start-up ecosystem. The fourth chapter describes the research methodology. The fifth and sixth chapters consist of discussing the Israeli and Finnish ecosystems, including the expert interview. Finally, the seventh chapter describes the economic impact of start-up support. Lastly, a conclusion is provided based on the results obtained from the data analysis with relevant recommendations to the Finnish ecosystem and suggestions for further research.

2 Start-up

2.1 Definition and emergence

Scientists have not yet established a single approved definition of the term "start-up". The classic description of a start-up that is quite often found in the relevant literature was given by one of Silicon Valley's best known entrepreneurial educators, Steve Blank. He describes a start-up as a temporary structure designed to find and implement a scalable business model (Ready, 2012).

The concept of "start-up" is closely related to Silicon Valley, where a start-up appeared in 1939. Stanford University graduates William R. Hewlett and David Packard founded what has been described as the first start-up, which later turned into such a successful giant as Hewlett-Packard and gained international recognition (Hall, 2019).

More recently, the innovative concept has practically become synonymous with Elon Musk, the most influential entrepreneur of our generation. Combined with ground-

breaking technology and a strong passion for improving life (both in and outside of Earth), Musk's unique vision is one of the most valuable contributions in building start-ups and bringing human achievement to the next level. "Running a start-up is like chewing glass and staring into the abyss", Elon noted (2012).

Jason Fried and David Heinemeier Hansson (2013) believe that the main reason why start-ups are implemented everywhere and continue to exist and thrive is the slowness of large companies, reliant on existing products, instead of creating and developing new ones.

The co-founder of the PayPal payment system, Peter Thiel, believes that a start-up offers a unique product that gives the company a winning monopoly status. In his opinion, the distinctive characteristic of a start-up is rapid growth. In a dynamic world, where innovation is abundant and continually moves society forward, companies create something new that makes lots of small but rapidly growing monopolies. The number of projects built from scratch is now increasing. Many companies declare their support for innovative projects and are ready to invest money in start-ups, provided that they have a competent business project (Ready, 2012).

However, it is worth noting that start-ups have both advantages and disadvantages. The advantages include the presence of interesting tasks and the high professionalism of the team, which the entrepreneur chooses independently. Further, mobility in implementing new ideas is also one of the main advantages of start-ups, allowing them to compete with large companies. The disadvantages of a start-up include a high degree of rapid closure of the project, lack of investment and significant risks (Holstein & Eschenfelder, 2017).

2.2 Economic importance

Solving problems in theory and practice of innovative entrepreneurship is particularly relevant in the modern world. It is developing a creative business that ultimately determines the possibility of achieving strategic economic goals and setting new technological innovations.

Each person has a particular set of wants, and from an economic point of view, all people with their wants are buyers. All the wants of the buyers form the demand. The demand is met by the products and services offered by the seller (directly or through intermediaries). All products and services that are intended for buyers form an offer. The seller creates its proposal based on the profit that arises when exchanging products and services for buyers' money from the excess of the received income over the seller's costs. Consumers and producers, demand and supply form a model that is called the market in economics. One of the fundamental laws of the market is the law of supply and demand. The higher the prices of products and services, the more willing sellers are to sell their products and services. However, the increase in prices reduces the interest of buyers and thus reduces demand. A balance is achieved when the different forces operating on a market find a market equilibrium (Samuelson and Nordhaus, 2001: 57). Understanding essential laws of the market help the entrepreneur successfully engage in business, determines his behaviour in the market and serves as the basis for building business models.

Entrepreneurship is arguably the most significant source of dynamism and innovations. A practical method to promote innovations systemically is to create a comprehensive environment for introducing new ideas and innovations. It is about linking scientific pieces of knowledge and technology to create a successful and sustainable start-up business. Thriving start-up ecosystems and entrepreneurship develop high-quality jobs and guarantee the quality of life that would benefit any country (Krajcik & Formanek, 2015).

Entrepreneurship performs the most important social functions such as the growth of the intellectualisation of society, the emergence of new professions and jobs, contributing to the enriching human existence (Zahra & Wright, 2015). Successful start-up firms can create jobs and contribute to economic wealth. A suitable ecosystem developed around start-ups is essential to form and support these firms. The entrepreneurial initiative helps to solve the problems of society associated with the depletion of non-renewable resources, difficult working conditions, and improvements in the quality of life. Start-ups are important and innovative parts of the economic system (Tripathi et al., 2018).

2.3 Functions

The functions that the head of a small enterprise performs at the beginning of a working day are significantly more labour-intensive and diverse than the functions of the CEO or chairman of the board of directors. Unlike the top management of large companies, the CEO of a start-up alone implements all the management functions: to study the market; to negotiate with suppliers, investors, and partners; to keep records and distribute profits; to invent and control production: to make strategic decisions, manage personnel, set goals, and assess risks. They are constantly solving the problem of doing what needs to be done. Every day, a small business owner is looking for a way that will allow his company to achieve its goals. Small business usually contacts with consumers directly and quickly discovers their needs. The entrepreneurial initiative finds new resources (raw materials, labour, information, technology) and turns them into opportunities to meet customer wants.

By contrast, Jeff Seibert (2018) shared his thoughts in an article about his own multitasking experience working as CEO of two companies simultaneously. The more involved CEO of the start-up will be with the day-to-day work, the more difficult it will be to scale for him, noted Jeff. Further, he recommends others not be scared to hire someone for this role when it is possible for the company. The founder does not need to be in charge of everything all the time. It is the opposite if a company wants to grow smartly (Seibert, 2018).

2.4 Organisational Life Cycle model

The problems of the formation and development of the enterprise are well illustrated by the model of the Organization Life Cycle. Professor Ichak Adizes developed the model during the 1970s. According to Adizes, companies go through the following stages in their life cycle: **Courtship**, **Infancy**, **Go-Go**, **Adolescence, Prime**, **The Fall**, **Aristocracy, Recrimination** (or Early Bureaucracy), **Bureaucracy** and **Death** (Adizes, 1989).

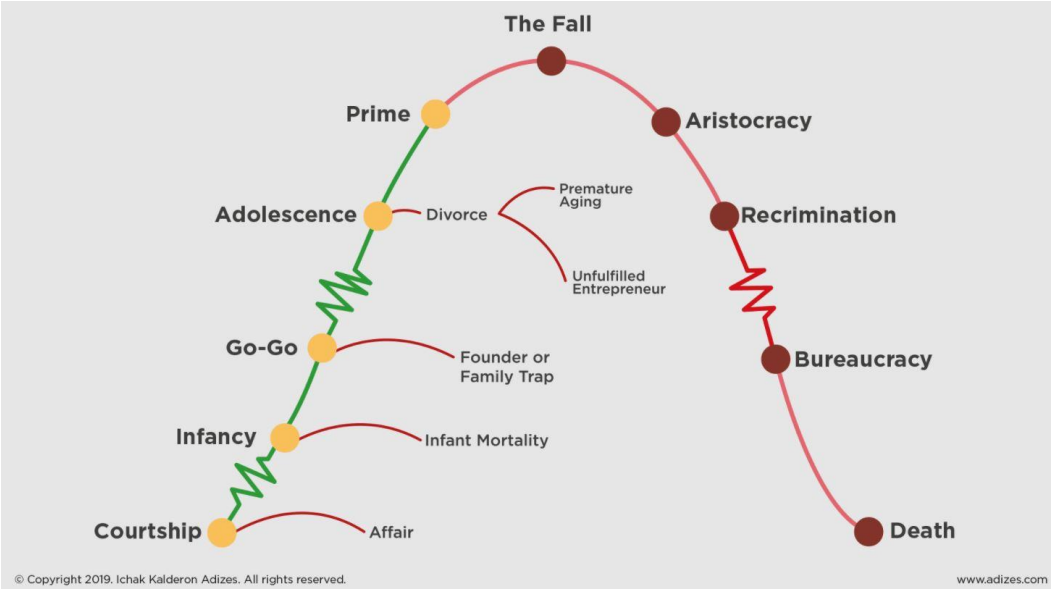


Figure 1. Organisational Life Cycle model (Adizes,2019).

Based on characteristics and their consequences as provided by Ichak Adizes (1989), below the first five crucial stages of organisational development are considered in detail.

Table 2. Stages of Organizational Life Cycle model (Adizes,1989).

Stage	**Content**	**Problems**
Courtship	The stage of the courtship of the organisation describes the emergence of a business idea and maturation. An innovative project's assessment of the prospects for commercialisation, development risks, costs, and resource requirements must be considered. Awareness and internal recognition of a business	The entrepreneur is not ready to take responsibility, to abandon the established way of life to implement the idea, which can be turned out to be a temporary impulse.

	idea by an entrepreneur have to be done. The future business management is informal, casual, and intuitive since the company is not yet legally registered.	
Infancy	The company is registered, the staff is hired, the first customers appear, business processes are formed. There is a struggle for survival in a constant crisis, the efficiency of enterprise management is far from perfect. In the field of marketing: product orientation, quality improvement (increase in serial production, differentiation of the product range), reduction of production costs. In economics and finance: it is necessary to attract external financing. Budgeting is not performed, weak system of control of cash flows, income, and expenses. In the field of management: the management style is autocratic, directive. Mission and strategy are not formed, there are no business procedures, there is no system of control over the execution of business processes, unclear organisational structure.	The leader's enthusiasm is not enough to keep the team and staff. Growing up does not occur too fast. Cash flows remain negative. As a result, "infant mortality" can be stated.

Go-Go	The product has found its niche and is in demand. The number of customers is growing, becoming permanent, and increasing sales. The company's growth requires an increase in the number of employees, due to which attempts are made to formalise enterprise management functions. However, profitability is still low. In the field of marketing: focus on expanding sales and increasing market share. Product modification following changes in consumer needs. Situational attempts to diversify the business. In economics and finance: due to the constant growth of sales, operating expenses are covered by their income, but there are not enough funds for development. There is no financial strategy. Finances are distributed according to the situation and not always reasonable. In the field of management: the management style remains autocratic, the self-confidence of the founder grows, management functions are distributed based on the personal qualities of people, without optimising business processes, job responsibilities are not	The founder's self-confidence can lead to the "Family Trap". The main reason is the founder's unwillingness to take a sober look at reality and abandon the old way of thinking and behaviour, which becomes incompatible with the further development of the organisation. Often the reason for the bankruptcy of an enterprise at this stage is the inability to divide the first money (which can lead, for example, to the division of the business, if there were several founders), the conflict of old and new staff, the departure of key employees.

	defined, which often leads to weak implementation of operations.	
Adolescence	The company gets a new life. The engine of further growth is the founders and managers and the professional workers involved in the company. The clash of traditional and innovative approaches to management creates conflict and inconsistency. The company focuses on the implementation of management systems, formalises business processes, introduces regulations, instructions. In the field of marketing: transition to portfolio strategies with a focus on maximising profits. Marketing forecasts appear, and attempts are made to control the market. In economics and finance: high growth potential increases investment attractiveness, the first strategic partners and investors come to the company, the funds raised go to implementing management systems. In management, the transition from an autocratic management style to a democratic one ensures personnel equality before	At this stage of the life cycle, there are no external threats to the enterprise, but there is a risk of returning to the "Go-Go" stage due to internal subjective reasons. Besides, the founder and ideologist of the business can leave the company, as they have psychological alienation and depression: it is impossible to develop business in the old way. The old enthusiasm changes to regular monotonous work. Routine management leads to conflict. As a result, can be a change of ownership of the company. The occurrence of these factors can lead to the "Premature ageing" of the company and the loss of independence as a result of a merger or acquisition.

	corporate norms and rules. However, the organisational potential is still low. The formalisation of management generates conflicts and contradictions. It is often necessary to transfer the control of the business from the owner to a professional manager or a collegial management body.	
Prime	Prime is a period of maximum power and reliability for the company. It is characterised by reaching the optimum point of the life cycle curve. A balance has been achieved between self-control and flexibility. Production and management are balanced and harmonious. Business systems work without significant violations. The efficiency of enterprise management is maximised. Top management forms a strategy for several years ahead. The staff sees the prospects of the business and supports the pursuit of the set strategic goals. In the field of marketing: the importance of a balance between sales and profit is realised. The company develops further technological	The task of management is to keep the company in the Prime stage as long as possible. It is essential not to fall from the top into the ageing stages of the business due to the imbalance between stability and innovation, operational and strategic efficiency.

	innovations; sales and profits are growing; the company's activities are focused on results that meet both internal and external needs. In economics and finance: revenues are allocated to operational and investment activities, development budgets are formed, aimed equally at improving the operational efficiency of the enterprise and its future development. In the field of management: the management style remains democratic. The management structure is being modified, or divisional management structure is being built in, and an organisational culture based on awareness of development prospects is being formed. Employees understand and share the organisation's goals and understand their role and tasks in specific business processes. The staff motivation system is quite effective (Adizes, 1989).	

The company undergoes ageing not with time but due to management mistakes, lacking flexibility and strategy. The main problem of developing a start-up in the innovation sphere is to solve the issues of managing the life cycle of the enterprise. The organisation life cycle model helps start-ups understand what stages they are

and the challenges they might face. By monitoring these factors, companies can avoid failures or overcome them faster (Adizes, 1989).

2.5 Challenges and possible solutions

Nowadays, public institutions in many countries have begun to pay more and more attention to creating new enterprises. The number of new dynamically growing enterprises and their further survival affect the economic wealth of regions and the prosperity of society. In this regard, an essential group of problems is the conditions and factors under which such enterprises will effectively survive and develop (Volkmann et al., 2010: 499).

The business idea of a start-up is only half of the future success. The success of small innovative businesses is also associated with the organisation of a business and performance discipline. For example, studies (Cohen & Feld, 2019) have shown that more than three-quarters of small businesses that were liquidated or ceased operations within the first 3 to 5 years after their establishment had weak management or erroneous marketing strategies. Thus, the success of start-ups is primarily determined by the internal organisation of small businesses. Solutions in the organisation of activity and management of start-ups can be found, although they are unique for each enterprise. Avoidance of typical mistakes and rational rules can increase the survival rate of small innovative enterprises in the early stages of development.

The European Start-up Monitor aims to provide insights into the challenges that start-ups are facing. Participants were therefore asked to indicate the three significant challenges faced by their start-ups. Once again, sales and customer acquisition were the most considerable challenge, with 19.5%, followed by product development (17.1%) and growth (16.6%). (Kollmann et al., 2016).

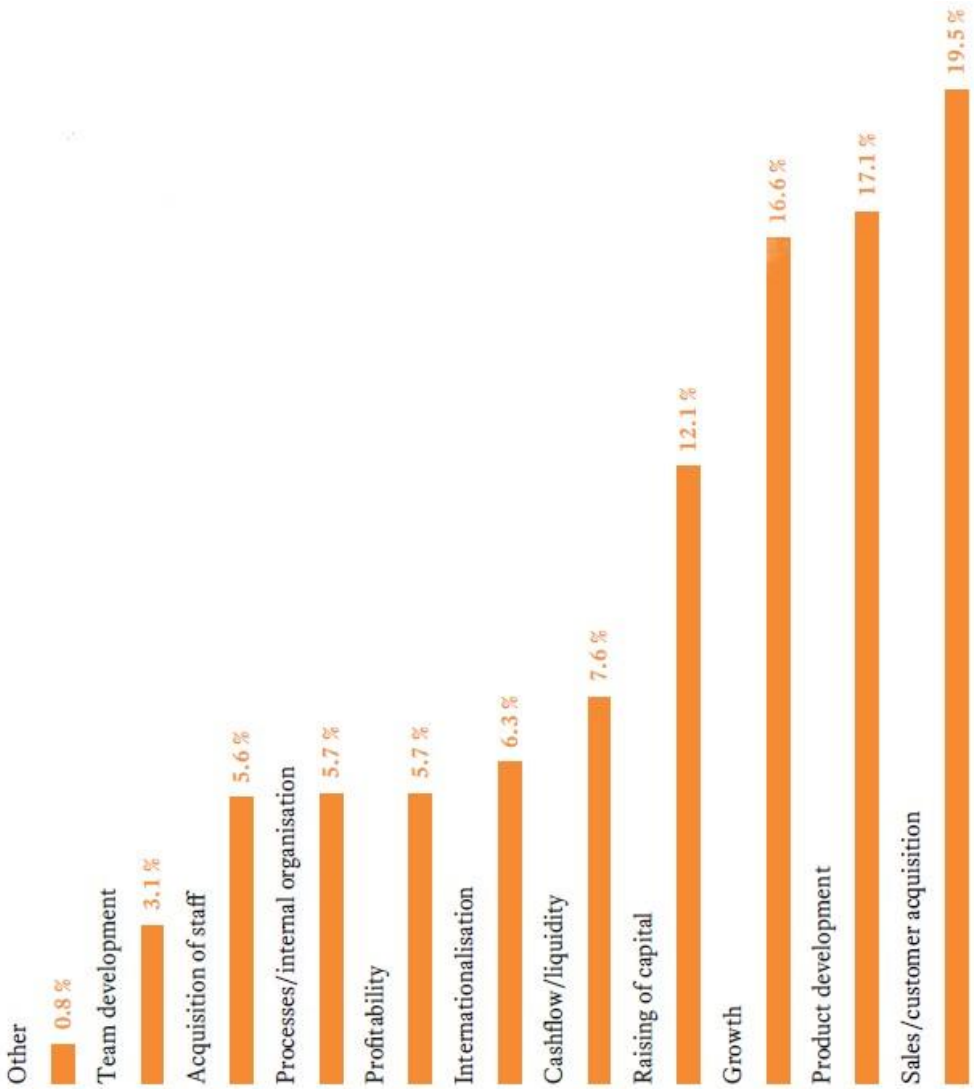


Figure 12. Challenges European start-ups were facing (Kollmann et al., 2016).

Uncertainty in scientific and technical innovation projects is associated with both the unpredictability of the results and the unexpected accompanying scientific and technological challenges that arise as the project is implemented. The inability to accurately predict the market reaction to the appearance of innovation is one of the crucial challenges for start-ups. That was confirmed by a statement from Eric Ries, an American entrepreneur and author of the book "Lean Start-up", that a start-up is "a human institution designed to create a new product or service under conditions of extreme uncertainty" (Ries, 2011).

Despite the "good start", entrepreneurs are not always as influential at the later stages of the life cycle, even if their company has achieved commercial success. In stable production conditions, they are not always able to find rational solutions. This is confirmed by the life cycle model of the organisation of Adizes (1989). Many of them cannot overcome the "growth disease" when the growth of the number of employees, the scale of the growing market requires a change in the strategy of enterprises, new approaches and management methods.

A necessary element of a growing company is the establishment of relations of power and influence within the organisation. Working their way up, employees of a large company gradually form a network due to intra-organisational interaction and accumulate institutional knowledge that a person from outside does not have. This phenomenon helps to understand why people in business who have founded their companies are often removed from power as their organisation grows and develops. Initially, holding the highest position in their organisation, they often find themselves devoid of sensitivity to the factors of power relations that may become a threat to them in the future. As Apple’s founder, Steve Jobs believed that he did not need to form alliances with his directors. This behaviour is prevalent among founders and technical geniuses. Some attribute this to the fact that other skills are required with the organisation's development: first, a product that provides a breakthrough, and then finance, marketing, and management. However, the real problem is that entrepreneurs do not realise the importance of forming a political base in the company as a separate competence. Even if they remain the company's owner, the founders can lose power because the changed circumstances make the accumulated knowledge and connections obsolete (Pfeffer, 2010).

"Because the purpose of business is to create a customer, the business enterprise has two--and only two--basic functions: marketing and innovation. Marketing and innovation produce results; all the rest are costs. Marketing is the distinguishing, unique function of the business", a very profound observation made by Peter Drucker (Forbes, 2006). However, when creating innovative enterprises, it is necessary to build adequate protection against risks for a business's long-term success. This requires strategy. Strategic management and a successful business model are essential for the

implementation and development of a start-up. As in any other business, it needs to set goals, tasks and find ways to solve them (LaMarco, 2018).

A good team is a required part of the implementation of a start-up. Starting a business alone is hard enough. It is also necessary to develop a strategy correctly and effectively for managing and entering various markets. It is also imperative that each member of the team effectively complements the other member. Everyone should have the necessary skills and qualities that other companions do not have. The coordination of motives and goals in the system is the most critical factor affecting the success of any entrepreneurial project (The 10 Most Critical Factors That Dictate Start-up Success, 2015).

For the activity of young enterprises in specific territories, it is essential to have a developed ecosystem of entrepreneurship. By providing a favourable external impact through various support institutions, a functioning ecosystem significantly increases the survival rate of enterprises. Such infrastructure includes political, legal, and economic conditions that encourage the establishment and facilitate the development of young enterprises (Isenberg, 2010) that are ensuring economic growth (Meyssonnier, 2015; Bridges, 2019).

Thus, it can be concluded that the success of a start-up project depends on a combination of various aspects. Scientific studies of the phenomenon of entrepreneurship have allowed us to identify the introductory provisions that comprise a set of successful entrepreneurship methods. The use of these methods forms the critical success factors that would enable to implementation of entrepreneurial projects. The success of the entrepreneurial activity is not the result of the mechanical use of essential elements of success. It depends on the personal qualities of the entrepreneur himself and the entrepreneurial idea. But suppose the business idea has sufficient commercial potential and the entrepreneur is competent. In that case, the critical success factors make it possible to achieve the goal much faster and more straightforwardly (The 10 Most Critical Factors That Dictate Start-up Success, 2015).

2.6 The impact of the Covid-19 pandemic on start-ups in the world

It is also worth mentioning the impact of the new coronavirus infection on global start-ups in the current situation. The Start-up Genome analytical project (2020) talks about two aspects: the calm before the storm (until December 2019) and the consequences caused by the virus.

According to the report, until December 2019, the prospects for start-ups were primarily positive. Still, as Covid-19 spread globally, companies found themselves in a difficult position, experiencing funding problems and a significant decline in demand.

It is noted that 4 out of 10 start-ups fell into the red zone, which means that the available capital is enough for them for more than three months. "Start-ups will fail if they do not attract additional capital, and income and expenses will remain the same. That can lead to the risk of mass extinction of start-ups around the world." said the report (Genome, 2021).

The report (2020) also highlights that the fundraising process was abruptly halted. Even start-ups that made arrangements with investors before the crisis, 3 out of 4 companies faced a stop in fundraising during the pandemic. For 18% of start-ups investors cancelled the round, and 54% of investors postponed the rounds indefinitely or lost contact with partners.

Therefore, it is not surprising that total venture capital funding for January, February and March 2020 decreased by 20%. But some regions have been hit harder than others. China has become the first country to experience the effects of the coronavirus. There, the indicator fell by more than 50% compared to other countries. Even though the country saw a recovery in investment in March, activity is still lower than in December 2019.

The situation also affected the level of income. About 72% of start-ups have experienced a drop in revenue since the beginning of the crisis, an average of 32%. Almost 40% of the companies ' revenues decreased by as much as 40% or more. And only 12% of this figure increased. More than 60% of start-ups have reduced the

number of employees or reduced their salaries. On average, such companies cut 33% of their jobs.

However, there is good news because every crisis creates new opportunities, and this one is no exception. For example, more than half of the Fortune 500 companies launched their operations during a period of reduced business activity. During the global economic crisis of 2008, such giants as Facebook, LinkedIn, Palantir and Dropbox were founded. "This shows the need to fund start-ups during periods of downtime," the report says.

Start-up Genome report (2020) highlights the need for policymakers to help start-up companies cope with the coronavirus crisis. Now start-ups need help, and if politicians do not support them, the economic consequences will be extremely severe. Governments can make money by investing in tech start-ups for at least six months. Even with a negative return of 10%, the cost of saved jobs in start-ups is 41% less than in small and medium-sized businesses.

The report says that the world's governments help businesses during the pandemic but pay little attention to start-ups. Government programs to help and support start-ups are usually guided by strict criteria for allocating funds and focus on companies with good profitability and property collateral. But as a result, many start-ups are left behind (Genome, 2021).

3 Start-up ecosystem

3.1 Definition and operation

The construction of innovative ecosystems has become a significant trend in recent years. The most prominent tech players are in a state of contention for the latest technology. Accelerating the growth of online services penetration in the Covid-19 world only increases the competition for leadership in critical areas. To achieve lasting economic wealth, the Government must understand the start-up ecosystem, particularly from researchers' and practitioners' perspectives (Tripathi et al., 2018).

Ecosystems include broad sets of actors and the relationships between them (Poppo & Zenger, 2002). As a rule, one of the ecosystem participants (most often the initiator of its creation) acts as an " orchestrator", setting the rules of work and managing the interaction between partners in the ecosystem.

Cukier et al. (2016) define the start-up ecosystem as follows: "a limited region within 30 miles, formed by people, their start-ups, and various types of supporting organisations, interacting as a complex system to create new start-up companies and develop existing ones." From this definition, it is clear that the start-up ecosystem focuses on a specific region, where entrepreneurs and supporting organisations collaborate. The ecosystem may include many different actors, such as entrepreneurs, innovators, venture capitalists, accelerators, incubators, mentors, service providers, investors, and academic and R&D institutions (Valkokari et al., 2017). In such ecosystems, innovation plays an essential role in successful processes and impacts the economy at the regional level (Pekkarinen & Harmaakorpi, 2006).

One of the essential elements of the ecosystem is venture capital, which is the capital of private investors or specialised financial institutions that support new or growing enterprises. The accelerator also plays a vital role in building a healthy ecosystem. An accelerator is an organisation that provides short-term training programs for the intensive development of a company. In a generalised form, the principle of the accelerator is as follows: the best ideas are selected through a competitive process. Then, over a period (on average from 1 month to half a year), the teams acquire the necessary knowledge and skills. The training is conducted both in the chosen industry and in related fields, which allows the novice entrepreneur to achieve a specific competence required in the further development of the project. Also, start-ups can use mentors to conduct joint work/consultations with specialists in financial, legal, marketing, technological and other narrowly focused areas. For greater immersion in the ecosystem, accelerators organise meetings (workshops) with already successfully implemented start-ups. The primary purpose of these meetings is to exchange experience, live communication and interaction, and establish contacts. An important role is played by infrastructure as well, including office space with the necessary technical support. Also, accelerator participants can count on seed funding, the funds required to support the product's launch. The final stage of the acceleration program is

a meeting with investors, to whom start-ups are ready to provide their business model and product. Incubators and business angels also provide financial and expert support to entrepreneurs at an early stage. Cooperation between all ecosystems partners influence on company's success and growth (Pellikka & Ali-Vehmas, 2016).

Cukier et al. (2015) identified the following start-up ecosystem elements for the start-up ecosystem in Israel:

- Entrepreneur
- Funding bodies
- Legal frame
- Market
- Incubator/Accelerator
- University/Research Center
- Education
- Demographics
- Geography Politics
- Family
- Culture
- Society
- Technologies
- Methodologies
- Established Company

These study elements were provided based on the study of three cities of Israel that gave a general view of the elements that constitute a start-up ecosystem. Furthermore, the roles were often seen as hybrids, and most companies consider that their actions may influence the future development paths of an ecosystem (Cukier et al., 2015).

Tripathi et al. (2018) also identified from a survey of 63 articles eight critical elements in a start-up ecosystem.

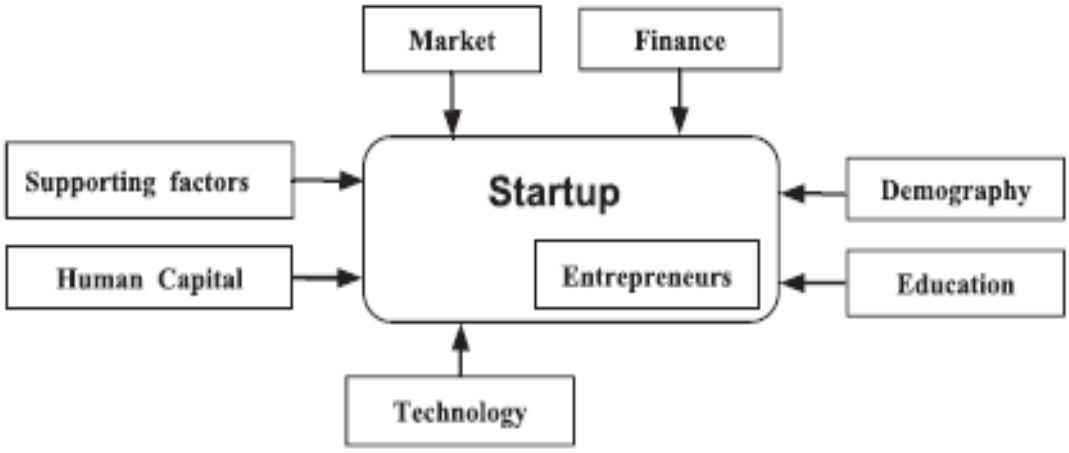


Figure 13. Critical elements of start-up ecosystem (Tripathi et al.,2018).

It is important to understand elements of a start-up ecosystem and use them as a framework to analyse the region's situation in this context. Results consistently show the advantages and disadvantages of the ecosystem as an operational environment (Tripathi et al., 2018).

3.2 Famous examples

StartupBlink's comprehensive global start-up ecosystem map and research centre produces the Global Cities Ranking of Start-up Ecosystem. Evaluating innovation ecosystems in 100 countries and 1000 cities around the world, StartupBlink ranks locations based on the number and quality of start-ups and support organisations, as well as factors related to their business environment, including ease of doing business and investment. The latest report of 2020 showed that the USA ranks first place and the U.K. second place (Global Map of Start-ups & Ecosystem Rankings | StartupBlink, 2020).

Silicon Valley has long been a leader among thriving innovation and education ecosystems in a world. Silicon Valley maintains the status quo, ranked in the first place. The position it had held since 2012 when were released first rankings in the Global Start-up Ecosystem Ranking report, organised by Start-up Genome, the first

organisation to release detailed research reports that compare start-up ecosystems around the world (Genome, 2021).

New York remains in second place, although in 2020, London drew level with it, giving an abundance of capital and investment. London had risen to its current second position from the eighth (2012) and is still a magnet for global talents (Genome, 2021).

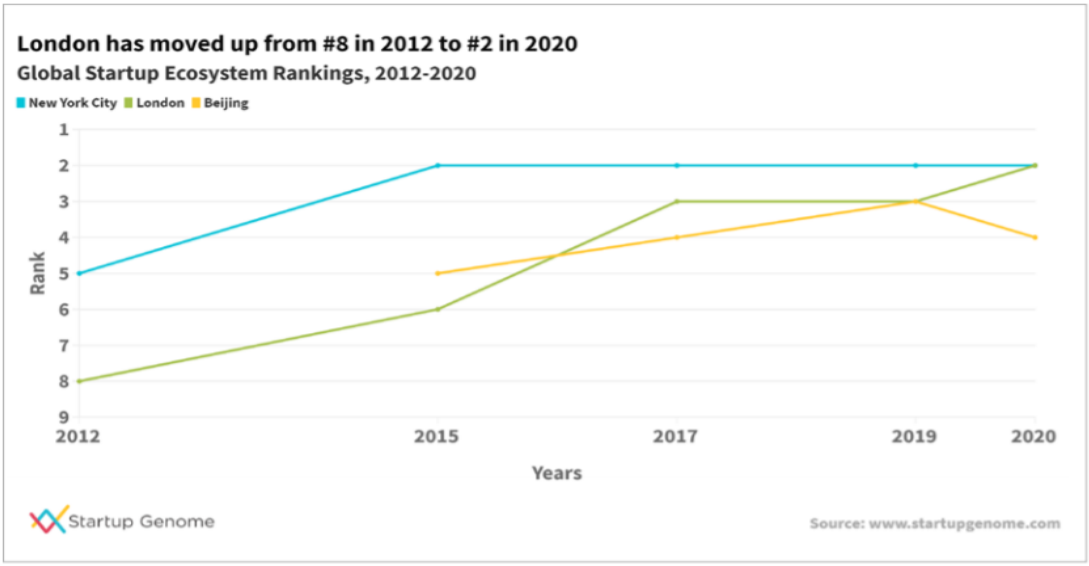


Figure 14. Global start-up ecosystem rankings **(**Genome, 2021).

According to the former Mayor of London and current Prime Minister, Boris Johnson, many people are employed in the start-up industry of the British capital. Foreign entrepreneurs move to London because of the favourable tax regime, finance availability, and the European market. London is the world's financial capital, a city with a developed infrastructure and an extensive e-commerce market. London has a favourable staffing situation. The city attracts a large number of talents because of excellent universities. Many remain to work in London after graduating from university. Tech City is a cluster of high-tech companies located in East London, information and digital technology hub. This place is also called the "Silicon Roundabout". It is the largest start-up cluster in the world after San Francisco and New York. With the help of London, many American companies are opening a window to Europe (Start-ups of London, 2021).

Singapore also is one of the top ten global locations with the most developed start-up ecosystem. Many start-ups choose this city for doing business because it has many advantages. "Singapore is characterised by a perfect symbiosis of high quality of life and entrepreneurial activity, the surge of which in recent years has been phenomenal. Singapore's start-up ecosystem is in the first place in the region and includes dozens of large venture capital funds, many incubators and accelerators. Still, most importantly, a large number of local and foreign talent wants to join it," said Rico Wyder, regional vice president of product at one of these start-ups, Tickled Media (Wyder, 2018).

The German capital, Berlin, also has one of the fastest-growing start-up ecosystems globally, "European Silicon Valley". Talented people worldwide are constantly flocking to Berlin, where easy to find valuable employees and partners, especially in business. In Berlin, the rapid growth of the start-up community usually goes hand in hand with the development of the investment environment. Start-ups from all over Europe and other parts of the world are moving here to attract investment and gain growth opportunities lacking in other cities. This "migration flows" have led to increased competition in the local start-up environment that accelerates development. In any case, Berlin as an ecosystem, even though it is still in the growth stage, is one of the investment capitals of Europe (Startup Guide, 2019). Berlin embodies change, and this is precisely what entrepreneurs and start-ups are striving for. Berlin has more A.I. start-ups than any other German ecosystem, and they are expected to make more than $2.2 billion in revenue by 2025 (Genome, 2021).

Start-ups are taking an increasingly prominent place in the business of France every year. In the report Start-up Genome (2020), Paris became the 13th city globally and the leader in France to develop the start-up ecosystem. At the same time, Paris is actively investing in the development of infrastructure for start-ups. There was built Station F, the biggest start-up incubator in the world. Station F is the world's largest start-up campus, where all representatives of the ecosystem are gathered - from start-ups with ideas to giant start-ups and venture funds that support both. The French venture capital market is well-formed and highly competitive, which makes start-up founders happy. For start-ups, capital is available, both traditional venture funds and small regional funds, corporate venture funds and private equity funds. The French venture capital market has grown since 2013, mainly due to the foreign capital invested in the country

in recent years (La French Tech, 2021). Government initiatives like the super hub Station F, the French Tech Visa, Viva Tech conference are parts of successful Paris development as a global tech hub.

3.3 Building innovation ecosystem

The concept of innovation ecosystems has become widespread during the last years. That became a motivation for Granstrand & Holgersson (2020) to investigate existing definitions of innovation ecosystems and related concepts. According to their conclusion, the innovation ecosystem is the evolving set of actors, activities, and artifacts, and the institutions and relations, including complementary and substitute ties, that are important for the innovative performance of an actor or a population of actors.

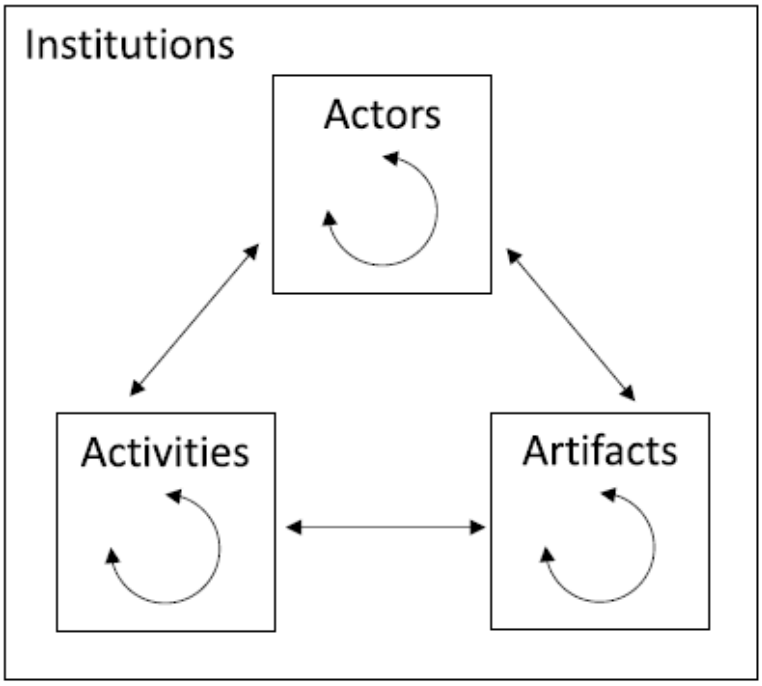


Figure 15. Components of innovation ecosystem (Granstrand & Holgersson 2020).

The authors illustrated three empirical examples of innovation ecosystems in the report where all the defining relations multiple different characters of innovation ecosystems were mentioned. The case of innovation ecosystems in video cassette recorders and

mobile telecommunications both illustrated multi-centric ecosystems. Competitive ties existed on multiple levels both in the artifact and actor systems that highlight cooperation between them.

The third example in the article is about Apple, which has a firm-centric innovation ecosystem. As is widely known, Nokia was the central actor in the mobile telecommunications ecosystem during the first decade of the 2000s. This changed dramatically when Apple brought innovations to the table and attracted customers. CEO Stephen Elop declared at that time: "Our competitors aren't taking our market share with devices. They are taking our market share with their entire ecosystem." Apple's innovation ecosystem allowed for successful businesses that directly sell a product to get huge returns from their innovations at the same time, continuously providing new value to customers. This case illustrated how an innovation ecosystem grew over a sequence of generation shifts, with creative destruction taking place in the artifact system and the actor system (Granstrand and Holgersson, 2020).

Satu Pekkarinen & Vesa Harmaakorpi (2006) explored building regional innovation networks essential in the regional innovation system. The focus of their article is the development of the age business core process in the Lahti (Finland) regional innovation system in response to the opportunities created by an ageing population.

The authors developed the RDPM network leadership tool that helps the regional actors to interact during the development process, as well as helping to promote dynamic capabilities and create social capital in a region. The RDPM tool was implemented in current strategies in the Lahti region.

The RDPM consists of eight phases:

- Benchmarking through the assessment of regional innovation system theories and conventions
- Background study of the industries and areas of expertise in the region
- Expert panels
- Assessment of future scenarios
- Analysis of statistical and empirical information

- The conceptualisation of the regional innovation system
- Search for the core processes of the regional innovation system
- Definition of the knowledge creation and management system.

Analysing Lahti innovation ecosystem and the relevance of the ageing business, authors found out that the collaboration of several competencies is required to develop successful well-being products.

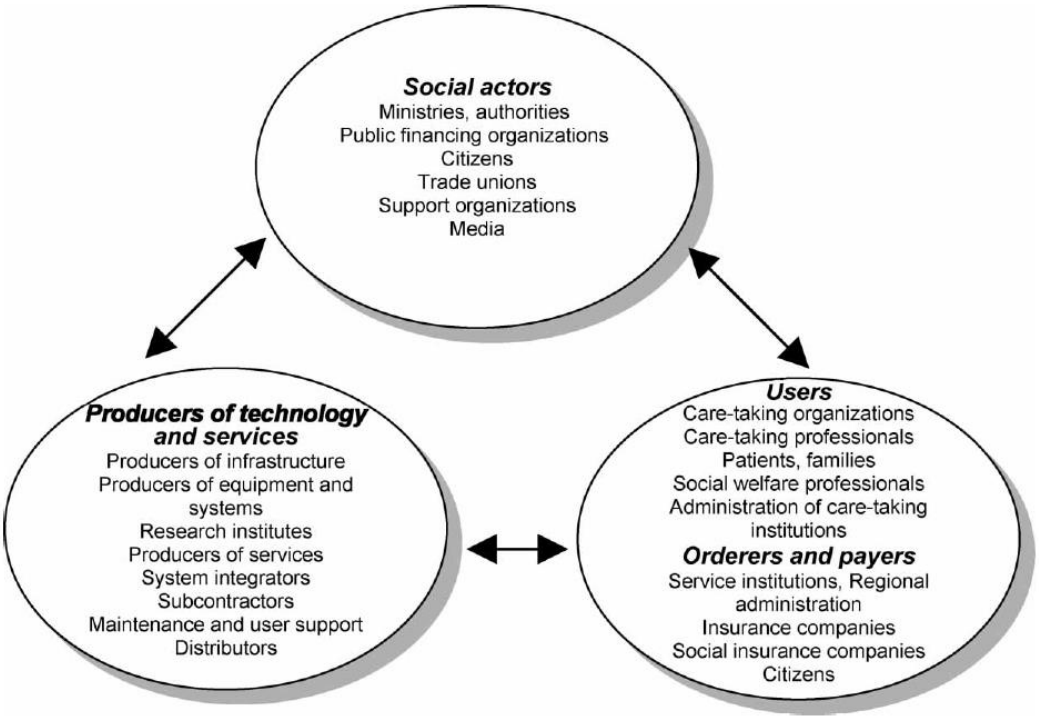


Figure 16. Parties to the well-being market network (Pekkarinen & Harmaakorpi 2006).

The ability to create knowledge in collective and interactive learning processes is one of the competitive advantages of regional innovation networks. That process is well reflected in the RDPM model. Increasing innovative capability and cooperation networks among the well-being sector actors play an essential role in establishing the regional innovation system (Pekkarinen & Harmaakorpi 2006).

4 Research design

4.1 Research questions

The main research question of the current study is: What is the role of the state or municipal support agencies and their policies dealing with start-up companies in Finnish and Israeli ecosystems?

Several subordinate research questions are considered to answer the central question:

- What is a start-up company?
- What is the concept of a start-up ecosystem?
- What are the critical elements in building a flourishing regional ecosystem?
- What are the leading start-up ecosystems in the world, and why?
- What are the differences and similarities between the Finnish start-up ecosystem and the Israeli ecosystem? What could Finland learn from it?
- What are the strengths of the Israel ecosystem?
- What are the consequences of the Covid-19 pandemic on the start-up world?
- What are the common mistakes start-ups make, and what to do to avoid them?

4.2 Methods of research

The research was carried out based on applying general scientific research methods in the framework of comparative, logical and descriptive analysis. The study was also carried out using the descriptive approach, which includes interpretation, observation, comparison, and generalisation. The material was gathered from academic literature, articles, internet resources (Fox & Bayat, 2007).

As a qualitative method analysis, the in-depth and structured online interview was collected to get insights about the Finnish start-up ecosystem. The interview was recorded with the interviewee's approval and later analysed, comparing with Israel's ecosystem. The goal of the interview was to investigate the respondent's beliefs,

values, and experience about his professional expertise relating business, corporate and start-up world. A summary of the discussion was constructed and presented (Krishnaswami & Satyaprasad 2010: 105).

5 Finland's ecosystem

Finland is a country with a unique way of life and culture, unusual and exciting traditions, advanced developments in modern high technologies, and most notably with the stunning beauty of nature. And all the best of the above advantages of this country are concentrated in the city of Espoo that is located less than twenty kilometres from Helsinki.

Espoo city is the most significant innovation hub in Northern Europe. It is an ecosystem of start-ups, scale-ups, growth companies and large international corporations, R&D centres, and Aalto University, where collaboration is an essential part of life. Espoo's area offers a robust growth platform for many entrepreneurs and companies. Espoo was noticed in the highest ranking of sustainability in Europe (2017). Sustainability was measured by the economic, sociocultural, and ecological sustainability scores. Espoo is the first city that has made English one of its official languages in Finland. Further, in 2020 Espoo city is a finalist in the European Capital of Innovation Awards (Enter Espoo, 2020).

Opinmäki Learning Centre, located in Espoo, won the international Educating Cities award to improve citizens' life quality (2016). The award was given by the International Association of Educating Cities IAE. United Nations Educational, Scientific and Cultural Organization UNESCO also rewarded Espoo in September 2015 for moral progress as a learning city. Espoo recognises the significance of learning as a foundation of its well-being and growth and all its residents. Over 52% of Espoo residents over 24 years old hold a university degree (Enter Espoo, 2020).

The Finnish Technical Research Centre (VTT) of Finland is one of the key players in the Espoo ecosystem. VTT is one of Europe's leading research institutions that

advance the utilisation and commercialisation of research and technology in commerce and society.

Aalto University is a honeypot of talents and innovators in the Espoo region. Aalto has a thriving student community specialising in science, technology, art, design, and business studies. There is also Aalto Startup Center hybrid accelerator that offers incubation services and accelerating program. The program provides start-ups with support, coaching, tools and modern, communal workspaces, and networks for fundraising (Aalto Startup Center, 2020).

Atomico is a European venture capital firm that every year conducts a survey of start-ups across Europe. In its Top 20 European hubs by capital invested ($M) ranking based on 2020, Espoo is in 8th place ($508M), and Helsinki is in 9th place ($453M). If combined, Espoo and Helsinki make the top 10 and equate to the sixth largest in Europe (2020).

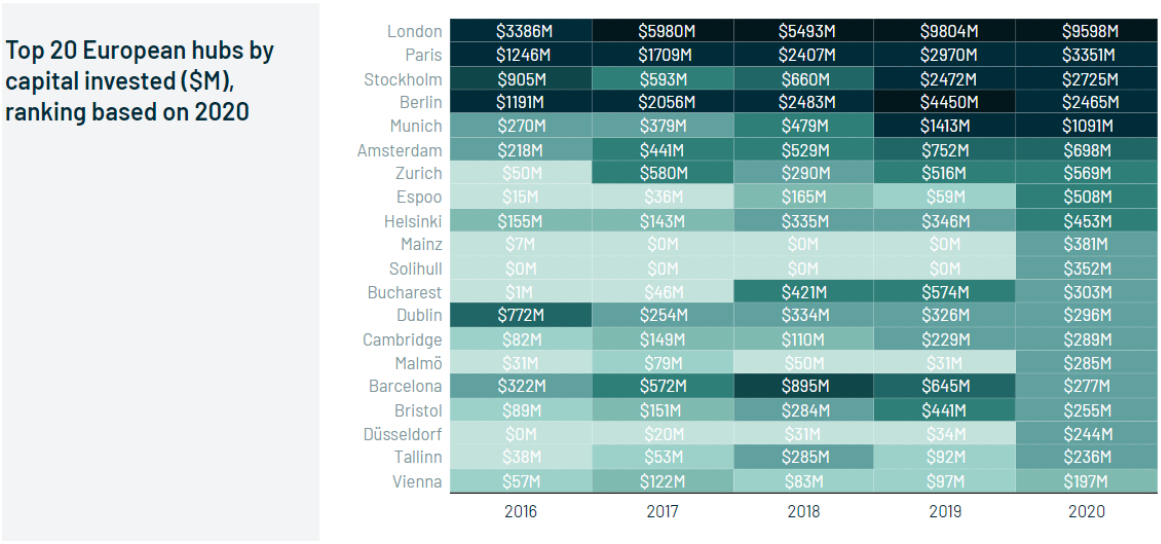


Figure 17. Top 20 European hubs by capital invested ($M) in 2020 (Stateofeuropeantech,2020).

Further in the Atomico report were mentioned interesting information regarding partnerships between tech start-ups and the Government. Earth observation start-up ICEYE, situated in the Espoo ecosystem, deployed microsatellites to track the data and economic impact (Stateofeuropeantech,2020).

5.1 Enter Espoo

Enter Espoo represents the City of Espoo and operates at the heart of the leading innovation hub in the Nordic countries. Enter Espoo helps companies, investors, and visitors to enter Espoo, and ecosystem players succeed and grow in Espoo's innovation and travel ecosystems.

Enter Espoo finds the right services, start-ups, and technologies to support business goals and reliable partners and locations. Especially for start-up companies, Espoo offers support from the formation stage to a growth company. Many different solid partners and organisations move forward to success (Enter Espoo, 2020).

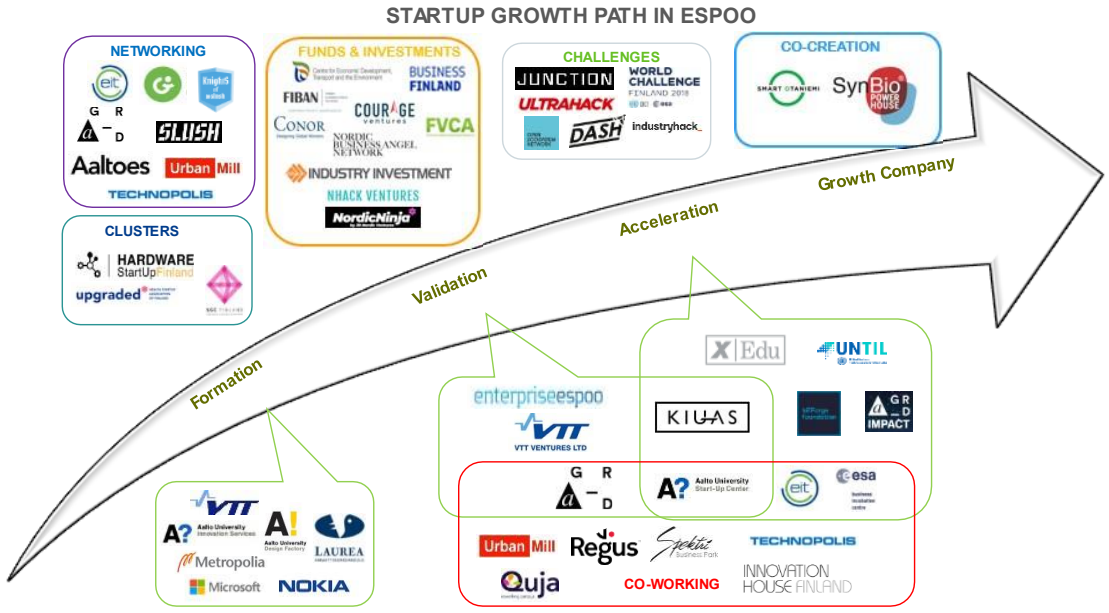


Figure 18. Start-up growth path in Espoo region success (Enter Espoo, 2020).

In 2018 Enter Espoo and Japan Innovation Network signed a cooperation agreement bring together the innovations and start-up-thinking of the Finnish counterpart with the excellence in quality and engineering of large-scale Japanese corporations. Collaboration is beneficial for both parties (Espoo, 2018). For example, the Espoo-based start-up Sensible 4 launched GACHA — the world's first self-driving shuttle bus for all weather conditions in cooperation with the Japanese retail corporation Muji. In

2020, the autonomous vehicle tech start-up received a €6 million investment from Nordic Ninja and ITOCHU to develop the first all-weather self-driving technology in the world (Enter Espoo, 2020).

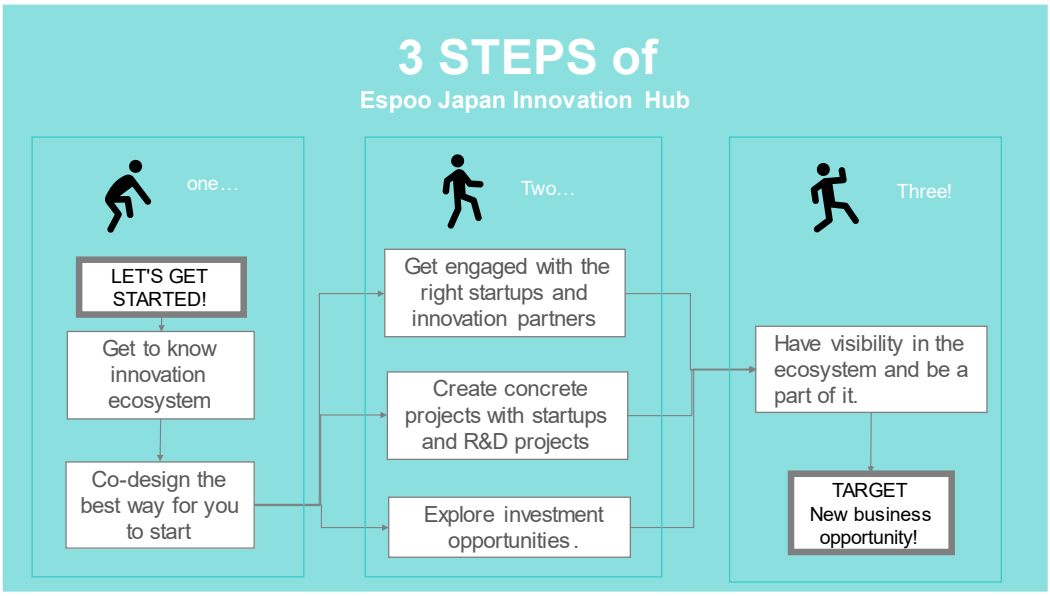


Figure 19. Example of Espoo Japan Innovation Hub cooperation (Enter Espoo, 2020).

Additionally, Enter Espoo organises matchmaking events that benefit companies and investors to meet and start doing business. This project is well organised and fruitful for both parties. In 2020 Corporate Start-up Online Weeks matchmaking event happened online and productively connected investors and start-ups for continual work.

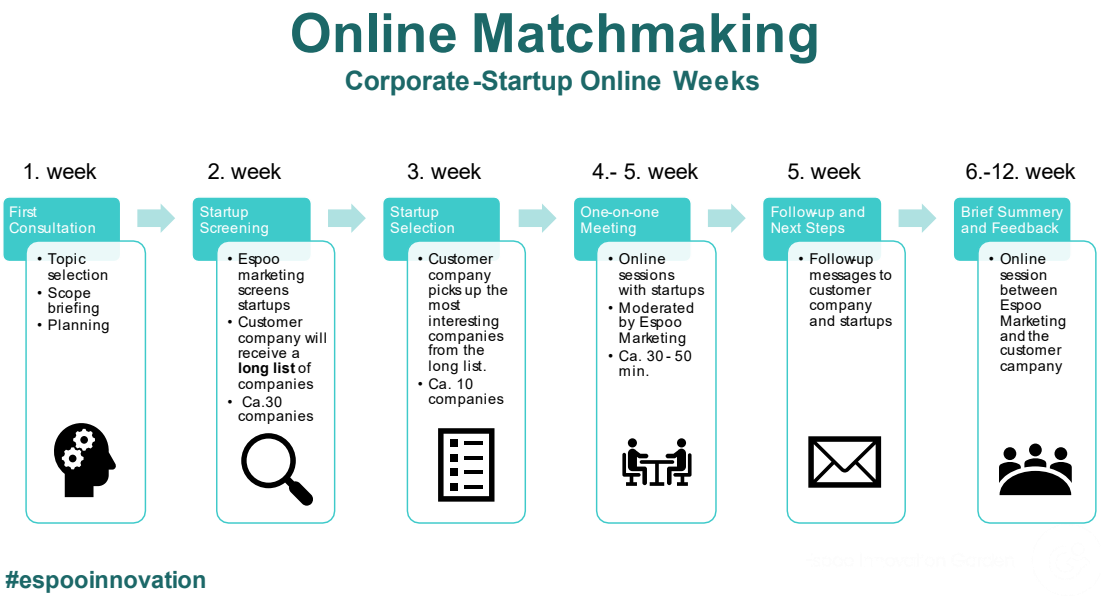


Figure 20. Structure of Corporate Start-up online weeks matchmaking event (Enter Espoo, 2020).

Technology screening (tech scouting process) is one of the specialist services of Enter Espoo. Experts in the team with solid ecosystem knowledge and experience provide tech scouting for companies about start-ups and technologies. Digital tools support this process, like the Launchpad matchmaking platform. Finally, start-ups and scale-ups have a one-to-one meeting and discuss future cooperation.

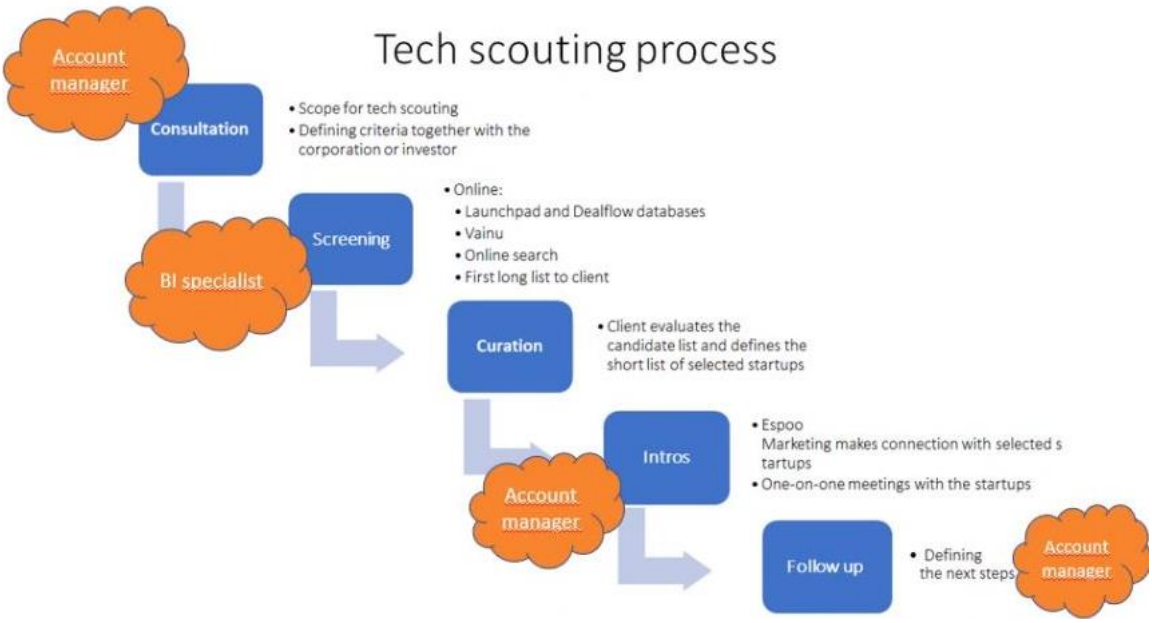


Figure 21. Example of tech scouting process at Enter Espoo (Enter Espoo, 2020).

Start-ups are located in a thriving community such as Espoo city. The participants clearly understand each group's place, role, and tasks, receive enormous benefits and very organically fit into the start-up ecosystem.

5.2 Expert interview with Alfonso Gutierrez

An individual interview was conducted in April 2021 with a representative of the Espoo start-up ecosystem, Alfonso Gutierrez, director of strategic partnerships at Enter Espoo. Alfonso has extensive expertise in assisting Finnish R&D centres, universities, accelerators and incubators, start-ups, and scale-ups to explore and develop international business opportunities by engaging global corporates, international venture capital firms. His operative and strategic role are to build and manage partnerships between international corporates, corporate venture capital and the Espoo innovation ecosystem, including start-ups and scale-ups, university, research and technology centres, and accelerators and incubators. Alfonso assists global corporates with tech scouting activities in Finland, helping secure proof of concepts and pilots with start-ups exploring collaboration research.

The focus of Enter Espoo as a company is to help start-ups grow and succeed, giving them open opportunities internationally. Enter Espoo provides many events, for example, the Knight of Nordics start-up conference as a part of SLUSH. Furthermore, every six months, there are activities where start-ups engage with corporates. Before the Covid-19 pandemic, there were also activities abroad. They are using digital or real events opportunities, many start-ups open doors internationally. The main goal of that cooperation is to attract investment activities to Espoo city and at the same time to help corporates find available innovations in the Espoo region. As all cities worldwide try to promote local ecosystem activities, research and development centres and large corporates, Espoo does the same. Companies and organisations pay taxes to the local economy and employ people. Further, it attracts talents to the city, which helps innovations grow. Economically specialised migrants positively affect future development ecosystems by transferring knowledge and skills (for instance, language and multicultural capabilities) (Schäfer and Henn, 2018). Start-ups play a vital role in the local economy formation.

The role of Enter Espoo as a public entity is to be involved in the start-up world permanently to understand their need and provide opportunities to grow. As well, it requires being flexible and always tries new things to adapt to new situations. These efforts create a solid tax base for the Espoo region. For example, work between Porsche, Mercedes Benz, and VTT Research Center of Finland brings lots of money to the city. The capital attracts talents and gives a foundation for institutes to create new projects in research centres to fund start-ups.

VTT Research Center of Finland (the largest allied R&D Center in the Nordics) and Aalto University (Finland's top engineering/technical, design and business university) are on the board as the closest partners of Enter Espoo organisation. They provide many strengths to the Espoo ecosystem because they represent a concentration of technologies and innovations.

Corporates look at all Finland as one place because of the tiny market size and small area, except if corporates want to have business with global companies such as Kone and Nokia. The value and the most attractive features of the Espoo ecosystem are innovations and talents. These innovations compete in the international market.

Chinese, Indian, and other nationalities from different countries come to Finland for the innovations. Based on the rankings, Finland is always in the top 10 innovative countries, meaning that innovation is central in the city, given Espoo's central position in Finland's innovation ecosystem. Many talents come to Finland, and of course, it affects the growing start-up companies. Schäfer and Henn (2018) describe the relationship between migration and the dynamics of entrepreneurial ecosystems and emphasise how transnational entrepreneurs play a crucial role in establishing and maintaining linkages between various entrepreneurial ecosystems (Schäfer and Henn, 2018).

Unfortunately, many people that work in the city entities or Government do not know anything about doing business. Civil servants and municipal employees often regrettably cannot help start-ups. They cannot offer the right services for start-ups because they do not understand what they need. The city needs to realise what are the main pain points for start-ups and entrepreneurs. Therefore, the city can organise different services, but nobody will use them because they do not need them. Launching a start-up in Finland is easy, but bureaucracy takes effort compared to other countries. It is a precise goal for Enter Espoo to understand what start-ups need and find the best way to support them.

Finland as an operational environment develops continuously, which also applies to corporates and start-ups. From Alfonso's ten years of experience, nowadays start-ups know how to present themselves, pitch and make the presentation, and even raise money. Finnish entrepreneurs know how to do all these things very well compared to the other countries. Alfonso has participated in many meetings between investors and start-ups and concluded that the level of expertise of Finnish start-ups is high. Aspects that operate in the Finnish start-up system are more effective in the B2B sector. The most significant advantage is the multi-technology portfolio and cooperation. For instance, Aalto University, the University of Helsinki and VTT Technical Research Centre of Finland have agreed to collaborate on quantum science and technology. Institutions cooperate for a common goal to support a growing innovative ecosystem.

The organisation that facilitates or help start-ups at the international level is Business Finland. Furthermore, many cities in Finland have organisations that operate with start-

ups. In Alfonso's opinion, there are too many. From the perspective that start-ups want to grow and develop, it would be better to put all people and organisations together working on a common goal. It would help start-ups to concentrate and engage with one organisation that has plenty of opportunities. Alfonso suggests putting all the organisations operating in the capital region in the start-up field into one company. If we discuss the Espoo ecosystem, there are too many players. Alfonso found it challenging to work with some organisations, even when they are working in one direction. It will be better if all players operate according to the same set of rules.

Finland closely works with Sweden and the Baltic area, but unfortunately, it lacks full access to international companies. People have good contacts, but they do not properly use these. Corporations need to feel that they are welcome. Finland still needs to work on it. For example, the Israeli market is as tiny as Finland's, but what they do right is to expand internationally. Start-ups have to go abroad to sell the product. They do technical movements or build connections with foreign companies and investors. In the past, start-ups had the opportunities to speak with many different companies, but it is not easy nowadays. Travelling abroad or visiting events takes so much time and effort. At the same time, they try to develop the product and sales.

Alfonso sees the Finnish ecosystem shortly as pretty positive. Start-ups have learned a lot during the last ten years. Many start-ups have impressive innovations and ideas, but sometimes it is not the right time for them as they cannot find the right customers, or in terms of product development, sometimes it is not developed enough. In the start-up world, intense competition every year picks up speed. It is a hazardous environment. The previous generation does not promote itself as much as the young generation with its development-focused outlook and self-confidence. Therefore, young entrepreneurs develop much faster and build success in the early stages of business development than previous generations (Schäfer and Henn, 2018).

Further, Alfonso observed that many start-ups do pretty big steps. They go abroad before they try to develop their product in the local market and sell it. That is a mistake. Especially U.S. and U.K. markets are competitive, and many start-ups fail quickly and die. In many cases, start-ups do not see the future of the company clearly.

In term of start-up ecosystems, Alfonso mainly works with Silicon Valley and Israel. Israel's government support is powerful. It provides funding for the lead start-ups organising the competition. In Finland, it works differently. Everybody is equal, and from the start-up's perspective, they get the same quantity of support for each of them. In Israel, it works oppositely: the most extensive support will get the outstanding company. Israel picks who is the best and supports growth. Alfonso believes this mentality works better. In business, there are winners and losers. The city government has to select. In Israel, people are indeed connected, and it affects the entrepreneurial ecosystem. They are getting experience entrepreneurs to transfer knowledge about foreign markets and related business development skills back to the Israeli ecosystem, which permanently enriches the country (Schäfer and Henn, 2018).

An Israeli start-up ordinarily has fifty people in the team. In Finland, in most cases, it is around ten people. Only by this we can evaluate the difference between these start-up nations. Start-ups from Israel can go everywhere because of a massive network of people willing to work with start-ups. Unfortunately, In Finland, we do not have it so much. The size of the network and support is different between Israel and Finland. Israel gives a push forward to start-ups and entrepreneurs. In 2000, 875 Israeli citizens were issued with H-1B visas to foreign workers in the USA. The latest statistics showed that most visa holders return to Israel after an average of three to six years. The Israeli entrepreneurial ecosystem benefits from these migrants' experiences and resources (Schäfer and Henn, 2018). The Government understands that if start-ups take off, the country and economy as well will take off. Alfonso believes that Finland can learn from Israel so much.

The most considerable risk that we have in Finland is that talents go away. For example, the Oura start-up that provides ring technology that measures sleep. Oura is conducting development in Oulu city. It has a representative in London, and it operates sales in Helsinki, but the most significant focus is on the U.S. market. Many start-ups conduct product development in Finland, and they focus only on the international markets. Finnish ecosystems have to provide opportunities to grow for start-ups to exist and not live abroad. Otherwise, Finland can lose innovations and technologies.

The role of universities and student entrepreneurship societies in the Finnish ecosystem is crucial; 50% of start-ups come from universities. Many universities have entrepreneurship programs and start-up schools that provide support and additional studies to help start their own business. It helps to look from a different perspective for students to let them learn by doing. At Aalto, university professors give excellent knowledge and allow students to learn the mentality of Silicon Valley and Stanford University based on the cooperation between these universities and Aalto.

The accelerator is invested with the condition that it will receive its percentage interacting with a start-up. Israel has built a good relationship with Silicon Valley, where investors come for Israeli start-ups. It turns out that Israel has all the conditions to interact with U.S. companies. The principal place of talents is Tel Aviv University and the Israeli Armed Forces. The Israeli Army is a storehouse of talents and scientists who come into the business after the military but do not stop doing scientific research. The Israeli Army has a constant practice and a need for the latest military technologies. This is a natural growth driver for curious minds and their inventions. If the influx of foreign labour increases, it will further accelerate the growth and development of the ecosystem. In other words, the growth ceiling of the start-up ecosystem in Tel Aviv has not yet been reached. It is just getting started.

Tel Aviv Global gives tours of the start-up ecosystem to nearly 100 delegations per year as part of the mission. Visitors are taken to explore ecosystem start-up and high-tech firms. Espoo city similarly also organises visit tours and event to expand knowledge about the Finnish working environment. Further, in 2015, the municipality of Tel Aviv took part in a global cities initiative to create a favourable environment that attracts talents and investments (Fraiberg, 2017).

From Alfonso's perspective, the role of the accelerator in the development of international opportunities for start-ups has to be developed. Finnish ecosystem is going in the right direction, bringing international programs. For example, Alfonso is working on cooperation with the TechStars program in the Espoo region. TechStars is the global platform for investment and innovation. This program is running for many years and famous around the world. Many Finnish organisations want to be part of it.

The level of start-ups in terms of competitiveness, sales, engagement with corporate has significantly changed. The credit goes to the SLUSH conference. The innovations and famous SLUSH conference have taken Finland to the next level. Moreover, some people go to Stanford to study there, and then they come back to the Finnish ecosystem. Knowledge about foreign markets, technologies and business practices is transferred back to the domestic entrepreneurial ecosystems. The remigration of highly skilled migrants who returned to their home country after having spent several years of education and work experience abroad is an accompaniment of the development of various entrepreneurial ecosystems in the world (Schäfer and Henn, 2018).

Alfonso guesses that start-ups in Finland fail not because of a lack of investments. Nowadays, it is hard for start-ups to do business. Even if the start-up is ready, it is not a problem to get the funding. They know how to pitch and attract investments. Doing business is another part entirely. Making business deals takes a lot of time and effort for start-ups and requires more deep preparation.

Berlin, Barcelona, U.K., Munich, and Israel work on many European projects. Germany is the economic centre of Europe, Berlin and Munich are vital players in the start-up world. Before, Germany had a barrier as a language, but now, they have switched almost everything to English. Sweden is likewise an excellent example of one of the best places for start-ups presence in Europe. Sweden has many more international companies than Finland. At the same time, in Sweden, there are many strong local companies. In terms of B2B business, Alfonso noted a strong presence in Bilbao in Northern Spain.

The start-up ecosystem is discussed at the society level more regularly in recent years, but still, many people are not aware of this topic. Overall, Alfonso noted the positive effects that start-ups are included in the case of discussions and news.

During the COVID-19 pandemic, some start-ups are doing well no matter what. It brings many changes: company representatives cannot travel anymore or visit events, but on the opposite side, start-ups learn how to work remotely, how to make deals and

sales. Companies that will survive this crisis can achieve great success: the more significant challenge, the greater the opportunity.

Start-ups have to create connections and networks. LinkedIn is an excellent place to do that. At the same time, start-ups need to have relations with other start-ups as well. Alfonso found this part is missing in Finland. Start-ups use an individual approach and do not seek to help each other. In other respects, Israeli entrepreneurs looking to develop their businesses to foreign markets and gain quick access to the relevant business partners abroad can support the Israeli entrepreneurs who are already working at that place.

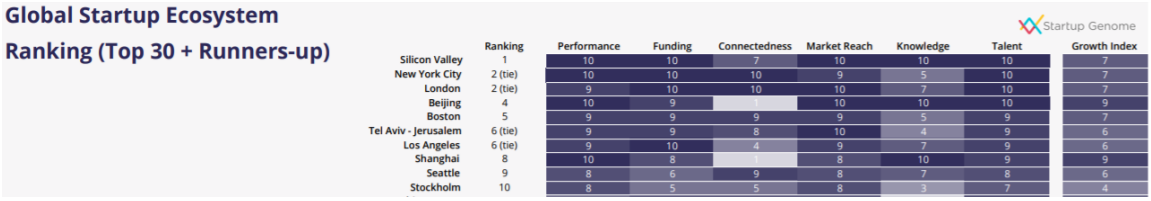
Support agencies and Government have to look from start-ups' perspective on their actual needs, and then municipal agencies will be able to realise what they can offer moving forward to common goals. Unfortunately, Alfonso summed up that the city government does not value organisations that work with start-ups properly. The city itself is not involved in activities enough; people that work in high positions are too busy and do not have time to meet representatives of international corporations, for example. Comparing with the Israel ecosystem, Finland has to show interest and be more open to connecting with multinational companies and ecosystems. If the city does not value what entities are doing, the whole ecosystem can become weak. The city has to demonstrate involvement and reward people who are working for the sake of this success.

6 Israel's ecosystem

6.1 Tel Aviv´s innovative ecosystem

Israel is rightly called a genuine miracle from the point of view of the venture business. The state, which appeared on the world map only decades ago, has built an effective ecosystem over the years and given birth to hundreds of technology start-ups. And this is even though Israel has been under the permanent threat of war since its creation, the area of the country's territory is tiny, and there are practically no raw materials.

Despite the isolation, the borders between countries are increasingly blurred, and any start-up can compete with Google and Amazon for talent and know-how. Digitalisation and access to global markets promise growth opportunities for flexible small and medium-sized enterprises. But the "Go global" strategy requires entrepreneurs to think globally and be willing to change their company quickly. Follow the statistics, Tel Aviv occupies 6th place in the global start-up ecosystem ranking (Genome, 2021).



	Ranking	Performance	Funding	Connectedness	Market Reach	Knowledge	Talent	Growth Index
Silicon Valley	1	10	10	7	10	10	10	7
New York City	2 (tie)	10	10	10	9	5	10	7
London	2 (tie)	9	10	10	10	7	10	7
Beijing	4	10	9		10	10	10	9
Boston	5	9	9	9	9	5	9	7
Tel Aviv - Jerusalem	6 (tie)	9	9	8	10	4	9	6
Los Angeles	6 (tie)	9	10	4	9	7	9	6
Shanghai	8	10	8		8	10	9	9
Seattle	9	8	6	9	8	7	8	6
Stockholm	10	8	5	5	8	3	7	4

Figure 12. Global start-up ecosystem ranking of 2020 (Genome, 2021).

Israel is not without reason known as the "nation of start-ups with the lack of fear surrounding failure" as part of the ethos in Israeli society (Fraiberg, 2017). The authors of the StartupBlink Research Center's annual ecosystem ranking report (2020) mentioned, "It is a relatively small country that has a significant impact on the global start-up ecosystem." The authors also stressed that to maintain an "outstanding ranking in the future," Israel must ensure that Tel Aviv remains a global centre of innovation in the face of increasing competition, trying to develop Jerusalem, and strengthening the ranking of other cities to improve its business environment.

Tel Aviv, known as the centre of Israeli innovation, was the seventh-best city for start-ups worldwide, dropping one place from the 2019 ranking. New Israeli towns included in the top 1000 cities were Yokneam, noted for its efficient management of tax benefits; Eilat, due to its focus on agro-tourism; and Ashdod, named an alternative place innovation, characterised by a lower cost of living. "There is a wide variety of areas in which Israel stands out: autonomous driving (Mobileye, Waze), advertising (Taboola), services (Fiverr), and much more," the authors of the report note. "One area that is developing and demonstrating significant potential is cybersecurity, exploiting the unique challenges facing the Israeli army." the local ecosystem has indirectly benefited by "creating the world's largest start-up accelerator –" the Israeli Army (StartupBlink, 2020).

Another organisation that spreads entrepreneurial energy beyond Tel Aviv is Start-Up Nation Central. The non-profit organisation brings together young companies from all over Israel with funding sources and offering conference and professional seminar facilities (Start-Up Nation Central, 2021). In terms of the comfort of the start-up ecosystem, Israel is second only to the United States, taking second place in the world ranking. It should be emphasised that initially, the start-up ecosystem of Israel was based on the interaction of the state and venture capital, entrepreneurs, incubators, accelerators. A significant role in the system of start-ups still is played by universities, which are the basis for forming and testing new ideas.

Dan Senor and Saul Singer, in their joint work (2009), consider the success of Israeli high technologies from different angles. According to them, one of the critical elements of the Israel ecosystem is creating a state initiative called Yozma, the essence of attracting foreign venture capital by providing tax incentives and the prospect of doubling any joint investments. The combination of foreign and state investments served the development of high technologies and became the source of 10 venture funds with a capital of $ 20 million. This result was achieved in three years (1993-1996), and a year later, the fund was sold to private investors. Thus, one of the integral elements of the ecosystem was created — venture capital: the capital of private investors or specialised financial institutions that support new or growing enterprises (Senor & Singer, 2009).

The current results were preceded by essential stages of the formation and development of the ecosystems. It is not easy to start the process and ensure that young innovations produce rapid growth and ripe fruits. It is a delicate job that requires patience, time, and no fear of changing the dogmas of the economic processes of developing and implementing new technologies. Initially, the priority areas of start-ups in Tel Aviv were corporate information technology, security, and military technologies of the Israeli Army in the civilian sector. The environment has recently been enhanced and diversified by start-ups in advertising technology, e-commerce, big data, cloud computing, medical technologies, and solutions to improve existing technological processes. Tel Aviv has built the most positive reputation among international venture capital investors over the past decades, as a place where there are talented business

innovators who respect their partner investors. Creating and maintaining a business reputation is sometimes no less complicated than starting a successful business.

6.2 Support and scale of start-ups

During the Covid-19 pandemic, the Israel Innovation Authority (IIA), the Government's technology investment arm, announced an injection of 500 million shekels (about $ 141 million) into innovation projects (Vogelman, 2020). The new fast-track procedure was part of an incentive package from the Israeli Finance Ministry to support the country's struggling technology sector. IIA collaborates with venture capital firms and invests in companies with a good chance of success in the long term but suffer from a lack of funding and require immediate investment.

To encourage investment in start-ups at a later stage, state guarantees for institutional investors have been launched. It provides guarantees to protect 40% of the investment portfolio in Israeli high-tech companies in the event of a portfolio depreciation. In a portfolio capitalisation growth scenario, the investor will have to transfer 10% of the difference between the portfolio yield and the government bond yield to the Israel Innovation Authority. An institutional investor should manage the portfolio for 8.5 years, of which the investment period is the first 1.5 years. Government guarantees apply exclusively to investments made in the first 18 months. Today, the Israel Innovation Authority is actively lobbying to increase support for the Israeli start-up ecosystem (Israel Innovation, 2021).

In general, despite the difficult situation in the economy, many market experts assess the Israeli ecosystem of start-ups and innovations as very stable and capable of changing in conditions of instability and crisis. It will allow the country to successfully pass through the most severe shocks and demonstrate record performance in the future.

A new study by Wakefield Research, conducted for the Insight Partners venture fund, highlights the importance of scaling start-ups. That is the next and natural stage in the start-up development after consequences of the economic blow inflicted by Covid-19 reports "The Algemeiner" (Spiro, 2021).

According to the research report, scaling has demonstrated the proven resilience needed to sustain job creation and growth in times of economic hardship. Although Israel has been called a "start-up nation," its results over the past few years have shown that it can find itself among other "scaling nations" – countries that promote the expansion of their companies beyond the initial stage of growth.

According to experts, investments in scaling projects in Israel increased by 66% between 2015 and 2019 compared to the previous five years. During this time, Tel Aviv also became the 15th largest scaling centre in the world by funding growth, with 290 funding rounds between 2015 and 2019. The report defines scaling as a company that broke the initial $ 10 million barriers in annual revenue and 50-1000 employees, with annual growth of about 20%. While start-ups spend most of their time testing product compliance with the market to create a business model that can scale, scalable companies have a proven business model and a proven product in the market. Only one out of every 200 start-ups achieves scale. "Scaling is a valuable engine of innovation and economic growth," concluded Deven Parekh, Managing Director of Insight Partners **(**Spiro, 2021).

7 Discussion

7.1 The economic impact of start-up support

A developed and dynamically growing start-up environment is a reliable foundation for the prosperity of the city, the region, and the country, with the potential to create a vast number of jobs. Start-ups are reviving the economy, improving the quality of life, and encouraging governments to compete in creating truly better conditions for attracting and retaining talent and supporting high-tech, scalable businesses (Holstein & Eschenfelder, 2017).

Holstein & Eschenfelder (2017) discuss the case of the Pittsburgh region in the USA. The evidence regarding the economic impact of start-up support is mixed, but this article underlines a positive claim regarding the financial implications of start-up support.

In modern conditions, it is no longer natural resources but science and education that determine the progress of any country. In this direction, the key factors are the use of the intellectual potential of society and the introduction of scientific achievements in the economy. Starting a new business is easier with the support of experienced mentors and investments. There are many accelerators in the world, time-limited start-up support programs. In recent decades, the Pittsburgh region had developed many incubators, accelerator programs, and tech ventures that can revitalise the economy, stemming the outflow of highly educated young from the area. Start-ups encounter different challenges such as risk, lack of finance, and uncertainty that can increase the failure rate among those who get started. Start-ups bring potential job creation and improve living standards that are associated with new tech ventures. It is the first reason why Government intervenes and support start-ups. The role of the private and public sectors in supporting tech ventures will increase in relative importance (Holstein & Eschenfelder 2017).

As evidence of economic impact, the authors provide employment statistics of the Pittsburgh region. Figure 12 shows that in 2014, the tech sector in the Pittsburgh region consisted of 9,948 firms with a combined annual payroll of $22 billion for 302,535 employees. The percentages demonstrate changes from 2012 to 2014.

	# of Firms	Employment	Payroll ($ Billion)	Average Wages
All Technology	9,948	302,535	$22	$72,719
Clusters				
Life Sciences	394 (-1.3%)	16,438 (+3.1%)	$1.4 (+6.2%)	$88.822 (+3%)
Advanced Manufacturing	2,159 (-1.2%)	67,315 (+2.4%)	$4.7 (+6.6%)	$70,131 (+4.1%)
Info Technology	1,603 (-6.2%)	27,881 (+0.6%)	$2.3 (+6.1%)	$82,426 (+5.5%)
Advanced Materials	258 (+0.8%)	10,057 (-3%)	$612.3 (+7%)	$60,879 (+10%)
Environmental Technology	1,657 (-0.9%)	36,929 (+1.2%)	$2.9 (+7.7%)	$79,028 (+6.3%)
Energy Technology	1,057 (+3.3%)	37,474 (+1%)	$3.2 (+7.9%)	$6,503 (+6.8%)

Figure 22. Pittsburgh region's tech sector 2014 vs 2012 Employment Data (Holstein & Eschenfelder 2017).

In Pittsburgh, government intervention plays a critical role, especially in helping start-ups get support and build a network at the begging of their growth. Further administration of government subsidies the ability to pick winners and losers in advance. The same mentality works as well in the Israel ecosystem that helps the best companies to succeed faster.

Finally, Holstein and Eschenfelder highlight relationships among state and municipal authorities, universities, venture capital and entrepreneurs to develop support networks for tech start-up activities. That became a reason for increasing economic activity in the tech sector in the Pittsburgh region.

In countries with a well-developed start-up ecosystem, entrepreneurs, governments, universities, investors, angels and mentors, all work together in a balanced way to interact, support, and develop the start-up environment. Migrants and their transnational connections generally affect the evolution of entrepreneurial ecosystems. This effect is distinctly visible in Tel Aviv's start-up ecosystem, the most important hotspot of Israel's high-tech industry.

Governments, municipalities, and local organisations launch start-up programs to attract talent to their country, give them tax incentives to make every effort to create a perfectly prepared start-up ecosystem. For example, in 2017, Estonia launched a program for issuing start-up visas for foreign and local entrepreneurs within the state initiative "Start-up Estonia" framework. Since 2017, about a thousand companies worldwide have moved to Estonia using a start-up visa. The Estonian Government annually invests its energy and money in developing modern technologies, maintaining the image of the digital state. There are many opportunities for entrepreneurs in Estonia to implement innovative projects (Start-up Estonia, n.d.). Finland is also moving in the same direction, offering a 2-year Finnish Startup Permit for Startup founders from countries outside the European Union (Business Finland,2021).

In Finland, science and education are tools for building public capacity and a driving force of society. Support for the start-up ecosystem is being developed to increase the competitiveness of the national economy, in which the creation of innovative technologies plays an important role. As noted in the Start-up Genome report (2020),

Finnish start-ups attract the most venture capital per capita among European countries. "Finland is an ideal test market and springboard for start-ups looking to enter the European and global markets, ready access to the eurozone and good connections to Asia. Also, Finnish consumers are tech-savvy and interested in trying out new digital solutions," said Annamari Soikkeli, Senior Advisor at Business Finland (Business Finland, 2020).

Universities and consulting agencies rely on the needs and trends of the start-up market for training and providing them specialised support. The main effect is the growth of innovative entrepreneurship. By developing and implementing technological solutions, start-up projects stimulate business activity in the country and support the real sector of the economy. For example, in Eastern Europe, the United States, China, and Japan, the share of innovations in the GDP s expands due to the developed start-up market. The global start-up economy remains large, creating nearly $3 trillion in value (Genome, 2021).

8 Conclusion

The start-up ecosystem in the Nordic countries is developing fast, and Finland is becoming more and more attractive to foreign investors and start-ups. In terms of creating and implementing new ideas and innovations, start-ups successfully compete with large corporations. One of the most important consequences of this thesis could be the strong cooperation of municipal and state support agencies and their involvement in the start-up world. Analysing the Israeli ecosystem brought new insights into what Finland might implement, helping start-ups become successful.

The level of Israel's start-up ecosystem is striking, both in its achievements and in its momentum for further growth. Thanks to the fact that the Government made a bet on the development of innovations back in the twentieth century, it is now possible to observe the results of the collaborative work of the state, entrepreneurs, public organisations, universities, venture capital firms, incubators, accelerators and investors. In Israel, for the creation and development of start-ups, not only a high-quality infrastructure is created, but it is also built so that projects at different levels of

development can easily find platforms, mentors and opportunities to create a prototype of a product. As a result, that close-knit work increases the total productivity of the economy.

Expert interviewee Alfonso Gutierrez mentioned about an excessive number of organizations that work with start-ups in Finland. Too many players in this field can harm the successful development of the ecosystem. The initial and integral step in supporting the development of innovation is creating cooperation with all stakeholders and partners of the ecosystem at the same level. Alfonso suggested establishing one capital organization and help start-ups access all available support services. A start-up ecosystem is poor when some of the components of the ecosystem do not work to their full potential.

The start-up ecosystem in Finland is well organized and promising. However, the Finnish ecosystem lacks solid connections and networking with other ecosystems and international companies. Finland has to be more open and connected to new interactions.

In terms of start-ups, the Israeli policy to select the most promising company and support them works well. The most significant value of Finnish society is equality. Sometimes in business, it does not work correctly. Finland could implement a new behaviour model to awaken a sense of rivalry between the start-up companies. That could significantly improve the ecosystem.

Further from the interview analysis Finnish government is not involved enough in support start-ups and attracting international companies. To succeed, people who work in the city entities have to show interest in attracting foreign talents and investments.

Most market participants agree that the Israeli innovation ecosystem is flexible and resilient enough to successfully emerge from the most severe shocks. Israel is a "shining example" of innovation for other countries due to its ability to become a global centre, despite the complex geopolitical environment and the significant tax revenues received by the Government from start-up deals and high salaries. Finland can learn

from Israeli experience of rapid development and success and gain insightful results in the country's economy and wealth.

After this study, it would be interesting and beneficial to see a new, similar study on the start-up ecosystem in Finland after a few years. I would suggest further research to investigate the economic impact of start-up support in Finland in the following years to see the differences, for example, in employment statistics.

References

2020.stateofeuropeantech.com. 2020. [online] Available at: <https://2020.stateofeuropeantech.com/chapter/state-european-tech-2020/> [Accessed 4 April 2021].

Aalto Startup Center. n.d. Aalto Startup Center main page. Services, news, portfolio, contacts. [online] Available at: <https://startupcenter.aalto.fi/> [Accessed 4 April 2021].

Adizes Institute Worldwide. 2019. Home Page. [online] Available at: <https://adizes.com/> [Accessed 20 April 2021].

Adizes, I., 1989. Corporate lifecycles. Englewood Cliffs, N.J.: Prentice-Hall, Business & Professional Division.

Businessfinland.fi. 2020. Greater Helsinki ranked among the top emerging start-up ecosystems. [online] Available at: <https://www.businessfinland.fi/en/whats-new/news/2020/greater-helsinki-ranked-among-the-top-emerging-startup-ecosystems> [Accessed 3 April 2021].

Businessfinland.fi. 2021. Finnish Startup Permit. [online] Available at: <https://www.businessfinland.fi/en/do-business-with-finland/startup-in-finland/startup-permit> [Accessed 25 April 2021].

Cornell University, INSEAD, and WIPO (2020). The Global Innovation Index 2020: Who Will Finance Innovation? Ithaca, Fontainebleau, and Geneva

Cukier, D., F. Kon, & T.S. Lyons. 2016. Software Startup Ecosystems Evolution: The New York City Case Study, 2nd International Workshop on Software Startups, Trondheim.

E. Ries. The lean start-up: How today's entrepreneurs use continuous innovation to create a radically successful business. Crown Business, USA, 2011

Enter Espoo. 2020. Frontpage. [online] Available at: <https://www.enterespoo.fi/> [Accessed 5 April 2021].

Entrepreneur. 2015. The 10 Most Critical Factors That Dictate Startup Success. [online] Available at: <https://www.entrepreneur.com/article/252813> [Accessed 16 March 2021].

Espoo.fi. 2018. Espoo Marketing Oy and Japan Innovation Network sign co-operation agreement. [online] Available at: <https://www.espoo.fi/en-US/Jobs_and_enterprise/Espoo_Marketing_Oy_and_Japan_Innovation_(85412)> [Accessed 5 April 2021].

F. Kon, D. Cukier, C. Melo, O. Hazzan, H. Yuklea, A Conceptual Framework for Software Startup Ecosystems: the case of Israel. Technical Report RT-MAC-2015-01, June 2015.

Feld, B. and Cohen, D., 2019. Do more faster. Hoboken, N.J.: Wiley.

Forbes.com. 2006. [online] Available at: <https://www.forbes.com/2006/06/30/jack-trout-on-marketing-cx_jt_0703drucker.html?sh=3be76548555c> [Accessed 15 March 2021].

Fox, W., Bayat, M.S., 2007. A Guide to Managing Research. Juta Publications.

Fraiberg, S., 2017. Start-Up Nation. Journal of Business and Technical Communication, 31(3), pp.350-388.

Genome, S., 2020. Start-up Genome. [online] Startup Genome. Available at: <https://startupgenome.com/article/state-of-the-global-startup-economy> [Accessed 2 April 2021].

Genome, S., 2021. Startup Genome. [online] Startup Genome. Available at: <https://startupgenome.com/ecosystems/berlin#:~:text=Berlin%20has%20more%20AI

%20startups,Machine%20Learning%2C%20are%20based%20here.> [Accessed 27 March 2021].

Genome, S., 2021. The Global Startup Ecosystem Report 2020. [online] Startup Genome. Available at: <https://startupgenome.com/report/gser2020> [Accessed 12 March 2021].

Gornall, W., & I. A. Strebulaev (2015). "The economic impact of venture capital: Evidence from public companies." Stanford University Graduate School of Business Research Paper No. 15-55. Available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2681841> [Accessed 24 March 2021].

Granstrand, O., & M. Holgersson. 2020. Innovation ecosystems: a conceptual review and a new definition. Technovation 90-91

Hall, M., 2019. Hewlett-Packard Company | History & Facts. [online] Encyclopedia Britannica. Available at: <https://www.britannica.com/topic/Hewlett-Packard-Company> [Accessed 9 March 2021].

Holstein, Adora D; Eschenfelder, Mark J.Journal of Business and Behavioral Sciences; San Diego (Spring 2017): 100-115.

Isenberg D. How to Start an Entrepreneurial Revolution. Harvard Business Review, June 1, 2010, pp. 41–50.

Israel Innovation. 2021. Israeli Government Approves program to Promote Institutional Investment in Advanced-Stage Israeli High-Tech Companies. [online] Available at: <https://innovationisrael.org.il/en/news/israeli-government-approves-program-promote-institutional-investment-advanced-stage-israeli> [Accessed 21 April 2021].

Kollmann, Tobias; Stöckmann, Christoph; Hensellek, Simon; Kensbock, Julia: European Startup Monitor 2016

Krajcik, V., & I. Formanek. 2015. Regional Startup Ecosystem. European Business & Management 1(2): 14-18.

Krishnaswami, O.R., & Satyaprasad, B.G.. Business Research Methods (1). Mumbai, Himalaya Publishing House, 2010.

Kumar, V., Venkatesan, R. and Reinartz, W., 2006. Knowing What to Sell, When, and to Whom. [online] Harvard Business Review. Available at: <https://hbr.org/2006/03/knowing-what-to-sell-when-and-to-whom> [Accessed 17 March 2021].

Lafrenchtech.com. 2021. La French Tech. [online] Available at: <https://lafrenchtech.com/en/> [Accessed 27 March 2021].

LaMarco, N., 2018. Why Is Strategic Management Needed? [online] Small Business - Chron.com. Available at: <https://smallbusiness.chron.com/strategic-management-needed-61313.html> [Accessed 16 March 2021].

Meyssonnier, François. 2015. "What Kind of Management Control for Start-ups?", Accounting Auditing Control 21(2): 33-61.

Pekkarinen, S., & V. Harmaakorpi. 2006. Building regional innovation networks: the definition of an age business core process in a regional innovation system. Regional Studies 40(4): 401-413.

Pellikka, J., & Ali-Vehmas, T. 2016. Managing Innovation Ecosystems to Create and Capture Value in ICT Industries. Technology Innovation Management Review, 6(10): 17–24. http://timreview.ca/article/1024

Pfeffer, J., 2010. Managing with power. Boston, Mass: Harvard Business School Press, p.512.

Poppo, L., & Zenger, T. 2002. Do Formal Contracts and Relational Governance Function as Substitutes or Complements? Strategic Management Journal, 23(8): 707–725. http://dx.doi.org/10.1002/smj.249

Ready, K., 2012. A Start-up Conversation with Steve Blank. [online] Forbes. Available at: <https://www.forbes.com/sites/kevinready/2012/08/28/a-startup-conversation-with-steve-blank/> [Accessed 9 March 2021].

Rupasingha, A., & S. J. Goetz, 2013. Self-employment and local economic performance: evidence from U.S. counties. Papers in Regional Science 92(1): 141-161.

Samuelson, P. and Nordhaus, W., 2001. Economics. Boston, Mass.: McGraw-Hill.

Satu Pekkarinen & Vesa Harmaakorpi (2006) Building regional innovation networks: The definition of an age business core process in a regional innovation system, Regional Studies, 40:4, 401-413.

Schäfer, S. and Henn, S., 2018. The evolution of entrepreneurial ecosystems and the critical role of migrants. A Phase-Model based on a Study of I.T. start-ups in the Greater Tel Aviv Area. Cambridge Journal of Regions, Economy and Society, 11(2), pp.317-333.

Seibert, J., 2018. You Have One Job As The Founder Or CEO. [online] Minutes - Insights from the internet's brightest minds. Available at: <https://minutes.co/you-have-one-job-as-the-founder-or-ceo/> [Accessed 17 March 2021].

Senor, D. and Singer, S., 2009. Start-up nation. Tel Aviv: Matar Publishing House.

Spiro, J., 2021. Report: Israel Sits Comfortably Among Scaleup Nations, Known for Their Resiliency in Tough Times. [online] Algemeiner.com. Available at: <https://www.algemeiner.com/2021/02/03/report-israel-sits-comfortably-among-scaleup-nations-known-for-their-resiliency-in-tough-times/> [Accessed 21 April 2021].

Startup Estonia. n.d. Startup Estonia. [online] Available at: <https://startupestonia.ee/en> [Accessed 18 April 2021].

Start-Up Nation Central. 2021. Building the Bridge to Israeli Innovation | Start-Up Nation Central. [online] Available at: <https://www.startupnationcentral.org/> [Accessed 25 April 2021].

Startupblink.com. 2020. Global Map of Startups & Ecosystem Rankings | StartupBlink. [online] Available at: <https://www.startupblink.com/> [Accessed 12 March 2021].

Startupguide.com. 2019. Startup Guide. [online] Available at: <https://startupguide.com/2019-berlin-startup-ecosystem-potential> [Accessed 27 March 2021].

Start-ups of London. 2021. London Startup Ecosystem - Ultimate Report 2021 | Start-ups of London. [online] Available at: <https://startupsoflondon.com/london-startup-ecosystem-ultimate-report-2020/> [Accessed 17 March 2021].

Tripathi, N., Seppänen, P., Boominathan, G., Oivo, M. and Liukkunen, K., 2018. Insights into start-up ecosystems through exploration of multi-vocal literature. Information and Software Technology 105(1): 56-77.

Valkokari, K., Seppanen, M., Mantyla, M., & Jylha-Ollila, S. 2017. Orchestrating Innovation Ecosystems: A Qualitative Analysis of Ecosystem Positioning Strategies. Technology Innovation Management Review, 7(3): 12–24.

Vogelman, Seth J. (2020). The Fortnightly project, Review of Middle East Regional Economic & Cultural News & Developments for 13 V 2020.

Volkmann C.K., Tokarsky K.O., Grünhagen M. Entrepreneurship in a European Perspective (Concepts for the Creation and Grows of New Ventures). 1st. edition. Gabler Verlag, 2010.

VTT. n.d. Welcome to VTT | VTT. [online] Available at: <https://www.vttresearch.com/en> [Accessed 4 April 2021].

Wyder, R., 2018. [online] Available at: <https://twitter.com/ricowyder> [Accessed 17 March 2021].

Zahra, Shaker & Wright, Mike. (2015). Understanding the Social Role of Entrepreneurship. Journal of Management Studies.

List of the interview questions to Alfonso Gutierrez

- Could you please briefly describe the organisation where do you work? What are core activities do you provide?
- What is the purpose of your work?
- Who are your closest partners?
- What are the most attractive features of the Espoo city area when it comes to entrepreneurship?
- Does Espoo city encourage the ecosystem and communities to develop new services (including the private sector, exploring new initiatives and partnerships)?
- How do you see Finland as an operational environment for start-ups? What aspects of the Finnish start-up ecosystem operate effectively, and why?
- What is the role of the state or municipal support agencies and their policies dealing with start-up companies?
- What are organisations that facilitate or help start-ups within Finland? How do these organisations operate, and which services do they provide and why?
- Is there an action or part missing from the start-up ecosystem, and why?
- How do you see the Finnish ecosystem soon? Is there a chance of improving the ecosystem's attractiveness to new start-up and investors?
- What are the most well know start-up ecosystems for you in the world? What kind of support these key players assist?
- What are the most significant risks or challenges for the Finnish's ecosystem future?
- Do you know some information about the most potent municipal support for start-up companies in the world?
- How do you evaluate Finland's ecosystem competitiveness compared to Israel?
- How do you see the role of universities and student entrepreneurship societies in the Finnish ecosystem?
- What makes the Finnish ecosystem unique?
- How do you see the role of the accelerator in the development of international opportunities for start-ups? What is the improvement needs of the accelerator programme?

- Do you see any visible changes in the Finnish ecosystem in the past ten years? If yes, what are they, and was there any specific reason you found out for the changes?
- What are the benefits for municipal agencies of supporting start-ups?
- Based on your experience, what are the main reasons why start-ups fail? What are the common mistakes start-ups make, and how to spark more investment from investors?
- Do you think start-ups that failed could or should have done something differently to avoid failure? How can Finland support start-up stay alive?
- Do you think compared to Finland, what is the best place for start-ups presence in Europe?
- Which country can Finland take into consideration as a model or good example? What can Finland learn from Israel?
- Pros and Cons of starting a business in Finland & your suggestions on what Finland needs to learn from other European countries or other countries should learn from Finland.
- Is there government negotiation with financial institutions on how to lower the barriers and requirements for start-ups?
- Is the start-up ecosystem discussed at the society level? What is the reputation of it? Is it positive enough?
- How do we see the future after COVID-19, and what kind of support start-ups are needed?
- Please give an example of an international opportunity development for a start-up that has been in your work experience. What happened?
- In your opinion, what are the most critical connections or networks within a start-up ecosystem?
- What are recommendations would give to municipal support agencies to better support start-ups or the development plans?