

## TAMPERE REGION STARTUP SURVEY 2021



Tampere Region Startup Survey 2021 Business Tampere Anni Valkeinen & Tommi Uitti September 2021

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The Tampere Region's startup ecosystem is in its early stages of development, and the public sector is strongly supporting it with different actions. The annual startup surveys commissioned by the City of Tampere provide data about the ecosystem's current status on a grassroots level. The data is used to support development work.

Due to their origin, startup companies are young, innovative companies that seek rapid growth by developing a unique product or service for a given market. Regional startup ecosystems support the activities of startup companies by offering them co-operation, research data, expert knowledge, mentoring and a community, for example. The Tampere Region has several actors in the ecosystem to support startup companies. Startup companies, like other high-growth companies, are potential employers that should be taken into account when examining the growth potential of the national economy.

Defining and counting the number of startup companies is challenging due to the dynamism inherent to startup culture. In this survey, we manually identified 209 startup companies in the Tampere Region. The business profiles include several different types of companies and entrepreneurs, but most of the startup companies in the survey focus on programming or technology. In accordance with the principle of creative destruction, the companies in the survey include many young companies in the early stages of business development. However, there are also larger, scaling high-growth companies. Many startup companies in the region have found both risk and public financing to support their product development and sales.

Keywords: startup company, startup ecosystem, Tampere Region

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#### 1. Introduction

As startup culture becomes more established in Finland and among large customer demographics, it is valuable to examine the development of the startup ecosystem on a local level. The development of the Tampere Region's startup ecosystem has been promoted more actively each year, and to get a comprehensive overview, it is important to examine the annual development in detail from a grassroots perspective. This survey was carried out by the Tampere Region's economic development agency, Business Tampere, as a commission for the City of Tampere.

The theoretical framework section of this report explores the definition of startup companies and startup ecosystems using several sources. The section also presents ideal locations for startups and briefly covers the role that startups have in the national economy as an industrial policy issue in the public sector. The description of the research area illustrates what the Tampere Region is like as an environment for startup ecosystems. The results of the 2021 Tampere Region startup survey and data from other sources make up most of the report. The results are presented in extensive detail with several graphs and figures.

The primary aim of the report is to determine the number of active startup companies in the Tampere Region and to collect and analyse up-to-date data about the different companies' status, which will support the ecosystem's development. The analysed data is used when considering what the focus of ecosystem development should be in the future. Furthermore, the region's economic development service experts will use the data to develop public business services for startup companies, including business counselling, guidance and events. The report is part of the City of Tampere's startup ecosystem development project.

#### 2. Key concepts

#### 2.1. Startup company

The term *startup company* does not have a precise, universal definition. Instead, the definition often depends on context. Different organisations and researchers have interpreted and created several instructions about the concept of a startup. To Business Finland (2020), a startup company is a young SME that aims for rapid international growth. The Finnish Government defines startup companies according to how old they are and how many people they employ. The Finnish Government also accounts for the company's basic legal requirements and its ownership model. Lastly, the startup is granted the status of a startup in the year that it fulfils all the necessary criteria. (Valtioneuvosto 2016.) The well-known international definitions are broader compared to the Finnish Government's definition. According to Bank & Dorf (2012), a startup company is a temporary organisation whose purpose is to seek replicable and scalable business models. Ries (2011) states that startup companies are humane institutions whose purpose is to create new products or services in very uncertain conditions.

The Tampere Region uses the Pirkanmaa startup alliance's definition of a startup (Ketola 2019). The definition was created by the members of the alliance, which are Business Tampere, The Council of Tampere Region, the Tampere University of Applied Sciences, the Pirkanmaa TE Office and Tampere University. This report will also use the alliance's definition. The Tampere Region's definition of a startup deviates from the Finnish Government's definition by accounting for a company's innovativeness as well as how growth-oriented the company is and what its financing potential is. The precise definition of a startup company is the following:

- 1. Employment: The company employs 1–49 employees and has either joined the Employer Register or has a team that employs more than one person. Work can be either local work or unpaid work done by the owner or volunteers. Work can be either full-time or part-time work.
- **2. Form of enterprise:** The company is a privately-owned limited liability company. Subsidiaries of groups and companies owned by the government or a municipality are not taken into account.
- **3. Innovativeness and scaling:** The company develops innovative products or services with a high business risk. The company seeks a scaling and replicable business model. Companies that have shifted from more standard business models to developing new innovative and scaling business models will also be taken into account.
- **4. Growth-oriented business:** The company actively seeks internationalisation and strong growth.

- **5. Financing potential:** The company has either received risk financing or has piqued the interest of risk financing communities.
- **6. The company's age:** Because this criterium is challenging to define, companies are divided into three categories:
  - 1) startups which fulfil criteria 1–5 and were founded less than 5 years ago.
  - 2) startups which fulfil criteria 1–5 and were founded 5–10 years ago.
  - 3) other growing companies that do not fulfil the criteria for a startup company. For this purpose, we can use the widely-used definition of a high-growth company from the OECD and Eurostat: "Enterprises with average annualised growth in the number employees greater than 20% per year, over a three-year period, and with ten or more employees at the beginning of the observation period."

The term startup is sometimes mistakenly used to describe all companies that are in early stages of development. The most significant difference between such companies and startup companies is the growth focus: companies in early development aim to maximise profit from the beginning, whereas startups primarily aim to develop their own innovative solution which, through scaling, may have an impact on an entire industry or even create new markets (Kriss 2020; Wallace 2018). While studying Finnish startups, Maliranta et al. (2018) have observed that startup companies are more likely than other starting companies to work in the software industry. Startup companies are also more likely to participate in innovation and be part of business incubators, accelerators parks. Startups are generally considered to have larger founding teams and to employ more people during the founding year compared to other companies. Furthermore, startup companies set higher goals for growth.

Startup companies are also often confused with high-growth companies (TEM 2018). As is mentioned in the startup definition written for the 6Aika project, the OECD and Eurostat (2010) have created a clear foundational definition for high-growth companies by using employment as a basis: A high-growth company employs 10 people, and the annual growth of employment must exceed 20% for three years. As a result, some startup companies may be considered high-growth companies, but not all high-growth companies are startup companies. The youngest high-growth companies — companies that are under 5 years old — are called gazelles, and they are mostly startup companies (Halme et al. 2015).

#### 2.2. Startup ecosystem

Regional business environments are increasingly examined as ecosystems (Robertson et al. 2020). Ecosystems consist of networks formed between economic development strategies, business activities and innovative initiatives that aim to increase employment and improve life in cities. The public sector has a significant role in business ecosystems, as it aims to ensure that there is a good environment for sustainable business development. Business ecosystems consist of different actors that depend on the context, so it is difficult to define a set number of actors. Startup companies can also be studied as an ecosystem. In the definition of Tripathi et al. (2019), the key characteristics of a startup ecosystem are entrepreneurs, technology, markets, supporting factors, finance, human capital, education and demographics. They define the structure of the startup ecosystem as follows:

"A startup ecosystem operates in the environment of a specific region. It involves actors that can act as stakeholders, such as entrepreneurs, investors, and other groups of people who have some self-interest in the ecosystem. They collaborate with supporting organizations, including funding agencies, governments, and educational institutions. Further, they establish organizations to create an infrastructure in which a common network capable of supporting and building startups on a smaller scale is established, increase domestic product development, and create new jobs in the country on a larger scale."

Zhavoronkova et al. (2021) define a startup economy more simply as "an innovative and developed region where a set of institutions operates, in particular research institutes, the best technical universities, technology parks, giant firms in the field of information and communication technologies organizations whose activities are aimed at supporting business initiatives". The ecosystem's operation is based on the flow of risk capital, human capital and scientific thinking for the promotion of innovations. Compared to other business ecosystems, startup ecosystems work more closely with applied sciences. In fact, the most developed concentrations of innovation ecosystems are found close to universities, research institutes and science and technology parks. The size and maturity of the ecosystem can be defined based on its startups' establishing and development conditions and on how successful further development has been.

#### 2.3. Startup companies from a regional development perspective

As creators of new products and services, young innovative companies often have the potential to improve regional financial productivity (Ghio et al. 2016). High-growth companies, including more

mature startup companies, make up a significant amount of the growth in the corporate sector. Halme et al. (2015) argue that young companies also have a key role in creating new jobs, and they emphasise the fact that a small number of growing companies creates a considerable proportion of new jobs. According to research by Maliranta et al. (2018), up to 28% of new jobs are created in highgrowth companies during their growth periods. Some scaleup unicorn startups are central to the growth of the national economy, although this requires long-term development.

In addition to developing employment and expertise, high-growth companies have several other positive impacts on the business community (Valtioneuvosto 2016). Young growing companies challenge old structures in their field, push large companies to implement reforms and serve as examples of how to implement more flexible operating models in entrepreneurship. Furthermore, young innovative companies bring new products and services to the market, which promotes competition and market reform. Because the domestic market is limited, internationalisation is considered essential for the growth of startup companies.

When examining the creation of innovations and the rise of entrepreneurship, it is important to study the characteristics of different entrepreneurs and regions. Del Bosco et al. (2019) have looked at the connection between the creation of startup companies and the number of accelerators, universities and research institutes and the level of education among the population in certain regions. Del Bosco et al. found that a high level of education and the number of accelerators were connected to the number of startup companies created in a region. However, there was no connection between the creation of startup companies and the number of universities and research institutes. One reason provided for why a generally high level of education is connected to the creation of innovative companies is that skilled individuals focus more on technology and market opportunities that have not been capitalised on yet to create new companies (Shane 2000). Highly educated people are also likely to affect regional development by sharing their knowledge when interacting with the communities they live and work with (Calcagnini et al. 2016).

Tripathi et al. (2018) say that business accelerators are a key factor in the creation of regional ecosystems. The accelerators provide companies with operational and strategic support inside their network and strive to promote investments and the development of companies. Unlike Del Bosco et al., Ghio et al. (2016) have observed that the geographical vicinity of universities and the knowledge they create have an impact on the creation of innovative startup companies.

Maliranta et al. (2018) define startup entrepreneurship through market trials. A wide variety of trials, quick failures and reaching for success with high stakes are all essential parts of the trial culture of the startup world. In an ideal operating environment, good companies should have the opportunity to grow while bad companies are eliminated and directed to pursue new topics and ideas through so-called creative destruction. Maliranta et al. suggest that this type of cultural and attitude change which supports entrepreneurship is part of good startup policy. However, the change can only be achieved indirectly and in the long term. According to Maliranta et al., industrial policy goals should include supporting the market scaling of startups that are truly growth-oriented and have real growth potential, which would result in production growth through jobs and increased profitability. Thus, the number of startups in a region is not inherently valuable when studying how well the startup ecosystem functions.

The Finnish Government's report (2016) divides the responsibility of developing Finland's startup ecosystems to national, regional and local levels. That said, the division is only a referential framework, and the creation of functioning startup ecosystems requires co-operation and overlapping actions between the different levels. The national level refers to creating functioning financing and educational systems, defining regulations and taxation, ensuring that the job market is flexible, creating a culture that encourages people to take risks and being responsible for national-level facilitation. Regional-level development concerns strengthening appealing regions with university locations and locations for large companies.

On the local level, factors that are considered to strengthen startup ecosystems include co-operation, trust, communication and transparency between different actors. It is vital to develop innovation platforms and tools to promote such co-operation. With the platforms and tools, the different actors and consumers in the ecosystems become engaged with the ecosystems, which expedites innovation activities. Cities can further accelerate the development of ecosystems with public acquisitions which provide startup companies with the opportunity for networking and the chance to gain references and knowledge. Startup companies that are in the early stages of development, in particular, benefit from affordable spaces and other facilities. Promoting joint development between startup companies and large companies is also a notable method of helping ecosystems succeed.

#### 3. Description of the researched region

#### 3.1. Startup surveys in the Tampere Region

The City of Tampere has commissioned a startup survey for the Tampere Region every year since 2017. The number of startup companies in the region has varied between 100 and 250 companies depending on which delimiting factors were used in each survey. The survey results and background details about the calculations are summarised in Table 1.

Table 1. Background information about the Tampere Region's startup surveys and calculations.

Year	How the survey was carried out	Number of startup companies
2017	<ul> <li>Startup companies were monitored with the Vainu.io service, which identifies startup companies with a learning algorithm.</li> <li>The number of companies by municipality was 194 in Tampere, 12 in Nokia, 9 in Lempäälä, 9 in Ylöjärvi, 7 in Kangasala, 7 in Pirkkala and 1 in Vesilahti.</li> </ul>	239
2018	<ul> <li>In summer 2018, the City of Tampere commissioned a separate startup survey that reached out to 187 startup companies out of a potential 300. Ultimately, a form was sent to 117 companies. Out of these companies, 98 were identified as active startup companies.</li> <li>In December 2018, the number of startup companies was charted again and 283 companies were identified. The number included the companies identified the previous summer and companies that were identified with the help of experts. The definition of a startup company was rather broad, which explains the large number of companies.</li> </ul>	98
2019	<ul> <li>In early 2019, it was decided that the Vainu service would no longer be used to identify startup companies, because the changing algorithm created poor data with statistical gaps. The new identification method limited the scope of companies included in the startup ecosystem.</li> <li>The startup survey that Business Tampere carried out in summer 2019 aimed to focus more on quality instead of quantity. A total of 67 startup companies were contacted.</li> <li>In December 2019, the reported number of active startup companies was 192. The number of startup companies decreased significantly compared to the previous year due to the change in the calculation method, as the definition of a startup company became more precise. However, it was proposed that the number of startup companies had actually increased and that the increase was slight but statistically significant. The number of startup companies created during the previous year was stated to be greater compared to other years, and the number also overshadowed the number of startup companies that stopped operating during the year.</li> </ul>	67 192
2020	Business Tampere created a new startup survey during the spring and summer, identifying 193 startup companies. The status of the companies was ascertained through an email survey, phone interviews and direct contact with company experts.	193

#### 3.2. The Tampere Region as an environment for startup companies

The Tampere Region's startup ecosystem consists of local startup companies, startups that have an impact on the local level and several different public and private organisations. The startup ecosystem includes many international actors, so English is the primary language of communication in the ecosystem. The research units of research institutions – the largest of which is the Tampere University community – have given rise to several spinoff companies, particularly in the fields of medicine and technology. Several innovation campuses are also operating in educational and research institutions. They study business ideas and the basics of entrepreneurship with communities and by offering a selection of courses. Many of the region's large companies collaborate with the region's startup companies, and collaboration is further promoted with methods such as the Rapid Tampere programme, which is aimed at companies working in the industrial sector. Startup companies are offered several communal spaces, such as the Platform6 startup building, which was opened in the Tampere city centre in autumn 2020. The startup building is home to the region's largest community focused on promoting startup entrepreneurship, Tribe Tampere, and the Tampere Game Hub, for example. Local private investment companies and investors are also significant in enabling the startup ecosystem to function.

The public sector supports and promotes the development of the Tampere Region's startup ecosystem, and Business Tampere has an important role in ensuring that the development can continue. The region's startup ecosystem is in the activation phase of its development and is still very vulnerable. Public sector financing is especially used to compensate for the lack of a market in the early stages, which is a common characteristic of all startup ecosystems.

Business Tampere works in the Tampere Region's startup ecosystem as a service organiser, facilitator and developer by offering growth and internationalisation services to companies both directly and through partnership networks. To help companies grow, they are offered services related to financial guidance, business development communities and networking. Startup ecosystem development requires continuously and strongly developing the collaboration between different actors. It also requires coordinating operations, building service paths and international networking.

Different organisations and cities collaborate to develop startup ecosystems in the public sector. The most significant development projects have included the Ecosystems of Growth projects related to the 6Aika urban development strategies. During the first Ecosystems of Growth project (2018–2021),

the 6Aika cities, which are Helsinki, Tampere, Espoo, Turku, Vantaa and Oulu, supported the development of research, development and innovation (RDI) operations for growth-oriented companies by creating innovation services and networks for them. The development particularly focused on regional innovation hubs and on promoting their national networking. The project included networking events for different actors and training programmes for innovation and business development. The cities also gained more knowledge about factors related to the creation and growth of companies. In addition, services and procedures were developed to support companies in matters relevant to them.

The "Ecosystems of Growth 2 – Digital Growth Programme Content" project (*Kasvun ekosysteemit 2 - kasvuohjelmien digitaaliset sisällöt*, 2021–2022) supports the developing skills and business of high-growth companies by nationally sharing the 6Aika cities' best growth programme content in a digital format. The project brings together the growth programme content from Turku, Tampere and Oulu and develops an operating model for sharing information between regions. The aim is to give high-growth companies digital access to a wider, more high-quality selection of growth programmes that are based on the strengths of different regions. Furthermore, companies will be able to more easily find the services and experts best suited to help them in their current situation and stage in the company's life cycle. Companies will also have better opportunities for networking outside their region.

#### 4. Method and data

The method used in the report is qualitative. The aim is to produce as extensive an amount of qualitative data as possible with a survey and structured interviews based on the survey. The collected data has been processed using single and multivariate analysis in Microsoft Excel. The report's data consists of the results of the 2021 Tampere Region startup survey and contact information data from Vainu.io, Fonecta Finder, Business Finland, Young Innovative Company funding and Crunchbase. Additionally, data from the 2020 Tampere Region startup survey and data from Statistics Finland's municipal key figures database has been utilised in comparisons.

The survey was aimed at potential startup companies selected from business lists and other data, and the goal was to identify each company's startup type based on answers to the survey. The most extensive source of information was a business ecosystem list which was downloaded in January 2021 from Business Tampere's CRM. The list included the contact information of 219 potential startup companies. The list was created based on Business Tampere's expert contacts. The list also included companies that participated in the 2020 startup survey. The CRM's business ecosystem list was filled in more during the spring, and 10 more potential companies were selected for detailed examination in May 2021.

To ensure that the report has as wide a scope as possible, companies outside CRM lists were also included in it. On 5 May, a list of IT companies founded in 2020 and 2021 in the Tampere Region was downloaded from Vainu. Of the 237 companies on the list, 21 were identified as potential startup companies whose status and operations were selected for closer examination. Outside Vainu's and Business Tampere's CRM lists, 43 potential startup companies identified through different sources were selected for closer examination. The companies were selected from among companies that were members of Tampere Game Hub, operated in Platform6's facilities and appeared in the Aamulehti newspaper's articles. In addition, some companies were found on the Dealflow service, while others were mentioned during phone interviews. Startup companies had also been identified during the 500 high-growth company meetings organised in the Tampere Region in the spring.

In summary, the company list that serves as the basis for the data in the report consists of a set of companies that were identified using a combination of different sources, which emphasises the importance of manual data collection and the fact that collecting data is challenging. Companies also have a high turnover rate. As an illustration, two startup companies filed for bankruptcy during data

collection. The Tampere Region's startup ecosystem is very likely to include companies that are not included in this report and whose operation Business Tampere is not currently aware of. Such startup companies may have just been founded, be in the very early stages of their development or be otherwise out of reach.

The collection of startup companies on the report's data sheet was identified with an email inquiry, phone interviews and through Business Tampere's company meetings and expert company knowledge. The ZEF tool was used to create a survey for data collection together with Business Tampere's experts (Appendix 1). The survey was available in Finnish and English. The survey consisted of up to 33 questions. Of these questions, 8 were open questions, 23 were multiple-choice questions and 2 were questions that were answered on a number scale. The survey also included 4 additional questions. The first concerned any other additional information the respondent would like to add, and the second was a request for the respondent's email address if they would like to receive an icecream coupon for R-Kioski stores, which was used as an incentive. The third question was whether the respondent would like to be contacted by Business Tampere. Finally, the respondent was required to confirm that they have read and accept the terms of privacy. The aim was to present as many alternative answer options as possible to make analysis easier. The survey was based on the survey that was used for last year's report, but it was slightly edited to better serve its purpose. The survey was either filled in by the company through an email link or by an interviewee during a phone call. The survey could be filled in based on the 500 company interviews carried out during spring 2021, or it could be filled in by a Business Tampere expert during a company meeting arranged for the survey.

The email surveys were sent to 217 companies between 26 March and 27 May 2021, primarily to the email addresses of contact persons. Only 20 companies responded to the first survey message. Due to the low number of respondents, almost every company was sent 1–4 reminders to respond to the survey. In the end, 57 companies responded to the survey. The email link to the survey was not sent to all potential startups, because some companies had arranged a meeting with a Business Tampere expert. Several potential startups that were left out of the original data sheet were identified after the first round of emails was sent. The companies identified towards the end of data collection were called directly without sending a separate email. Companies that did not respond to the email survey were approached with a phone interview or by arranging a meeting with an expert. The phone interviews and company meetings mostly took place between April and June 2021. The current status

of companies that could not be reached was ascertained based on different online sources and the knowledge of experts.

#### 5. Results and discussion

#### 5.1. Number of startup companies

The Tampere Region's startup report includes 209 companies identified as active startups. Of these companies, 49 filled in an email survey independently, 85 filled in the survey through a phone interview, 49 companies were met separately or during the 500 high-growth company meetings coordinated by Business Tampere and 26 were found to be active through different sources (Table 2).

Table 2. Methods of ascertaining that the startup companies included in the report were active.

	Active startup company	Not a startup company
Responded to the survey independently	49	8
Phone interview	85	25
Meeting	49	7
Other source	26	44
Total	209	84

All in all, the report examined the status of 293 companies to identify startup characteristics. Of the examined companies, 84 were not considered active startups. Regarding these companies, 16 had stopped operating, while 13 had paused their operations during the survey with no certainty as to whether they were going to continue. Furthermore, 7 companies were no longer operating in the Tampere Region, 17 could no longer be considered startups due to their age or number of employees and 26 did not fulfil the criteria for operating like a startup (Table 3).

Companies in the last category had either been acquired by another company, were not seeking active growth and internationalisation or were not developing innovative products or services. Of the companies that could not be considered startups, 8 were reached via email and 25 via a phone call, while 7 were met during the 500 high-growth company meetings. Lastly, the status of 41 companies was ascertained by experts or discovered through online sources. The profiles of startup companies that had grown too big or moved elsewhere is examined in more detail in section 5.16.

Table 3. Companies that did not correspond to the report's definition of a startup. One company fulfilled two removal criteria.

Criteria for removing companies	
Age over 10 years / 49+ personnel	17
Change in ownership	6
Moved elsewhere	7
Operation does not fulfil startup criteria	26
Operation stopped	16
Operation paused	13
Total	85

A total of 131 companies in the 2021 report were also included in the 2020 startup report. Similarly, 63 companies included in the previous year's report were no longer considered startup companies in the 2021 report. However, 74 startup companies that were not included in the previous report were identified for the 2021 report. Of these companies, 29 had been founded after June 2020, which was the deadline for the previous survey, and 14 were founded in 2021.

The rate of turnover in the startup list illustrates how dynamic the ecosystem is, as new companies are established and old companies end their operations. The turnover can also be explained by the fact that individual startup companies are difficult to identify: 50 companies included in the 2021 report had been founded before June 2020 but had not been included in the previous year's report. We also used strict criteria for age and size in this year's report. Companies that were founded over 10 years ago were not included in the startup list, with the exception of one health technology company that could still be considered a startup due to slow product development and four other companies whose operations had seen significant reforms in recent years. All companies that employed more than 49 people were also removed from the list.

The relative number of startup companies can be examined using different platforms that do not include all startup companies in the region. For example, according to the national search tool for investors, Dealflow, the Tampere Region is home to 33 high-growth companies (Dealflow 2021). The service lists a total of 468 startup companies, so the companies in the Tampere Region constitute 7% of all startup companies on the platform.

#### 5.2. Revenue and personnel

The total revenue of all startup companies included in the report was EUR 56,758,752. The companies can be divided into the following five categories based on their revenue:

- XS LV EUR 0 EUR 1,000 / 63 companies
- S LV EUR 1,001 EUR 50,000 / 37 companies
- M LV EUR 50,001 EUR 250,000 / 48 companies
- L LV EUR 250,001 EUR 1,000,000 / 37 companies
- XL LV over EUR 1,000,000 / 17 companies

The categorisation is based on each company's latest revenue data reported on Vainu.io and on data collected from the survey. The revenue data of 143 companies was obtained from Vainu.io. However, some of the revenue data may be from financial statements from several years ago, so the data is not completely up-to-date, the revenue data of 59 companies could be ascertained from survey data. These companies were either at the research stage or in their early stages, or they were companies which were founded last year and had therefore not yet completed a financial year. The revenue data of 7 companies could not be completed. That said, the companies in question were in early stages of development, so the lack of data likely does not have a significant impact on the total revenues of the different company categories outlined before.

The latest available revenue data and 2021 revenue forecasts for each company category are displayed in Figure 1. Some companies that are included in current revenue data are not included in the forecast data, because not all companies have reported revenue forecasts. The companies are categorised based on the latest revenue data available on Vainu.io. The companies in each category appear to expect strong growth for total revenue, although the expectations are somewhat more conservative in some categories compared to others. XS companies expect the highest relative growth, which is caused by the relatively high forecast of one company in the category. All in all, the region's startup companies expect their total revenue to reach almost EUR 150 million by the end of the year. The median revenue and forecast values appear more conservative compared to the overall values. The median revenue values for all companies are rather low, because most of the companies included in the calculations do not yet have reported revenue, and their forecasts for the near future are still conservative.

#### Revenue and revenue forecast 2021

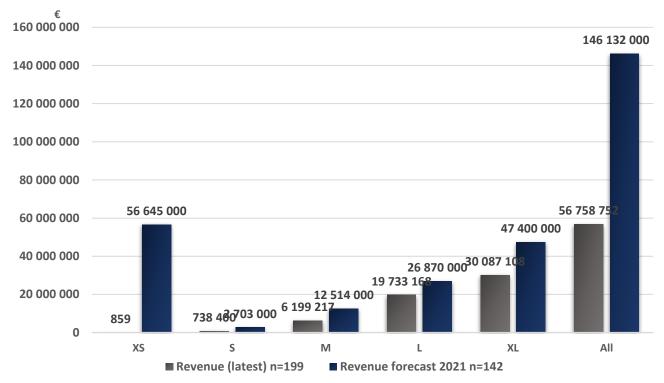


Figure 1. Company revenues by category according to Vainu.io's latest revenue data, and revenue forecasts based on the startup survey.

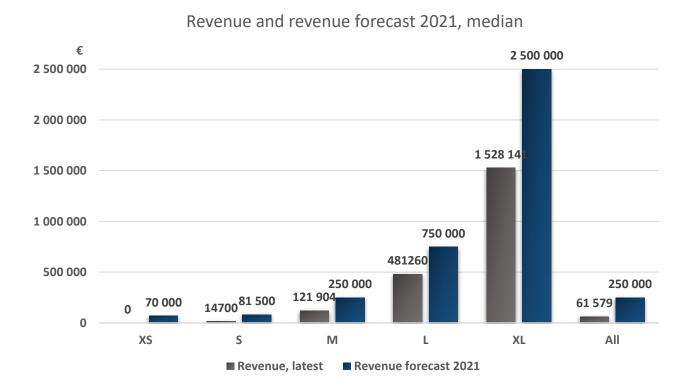


Figure 2. Median values for revenue and the 2021 revenue forecast.

The previous startup survey also asked respondents about their companies' revenue forecast for the year. Figure 3 shows the previous year's survey data in comparison to the companies' actual revenue in 2020. The actual revenue data was downloaded from Vainu.io. In total, 61% of the studied companies did not reach their revenue goal. XL companies were the most successful in their revenue forecasts. Of the studied XL companies, 55% reached their revenue goals. XS and S companies had the least success, as all of them had higher revenue goals compared to what they achieved. Companies have been categorised for comparison according to their 2020 revenue data.



Figure 3. Only 39% of companies reached their expected revenue goal in 2020.

The company data downloaded from Vainu.io. makes it possible to observe revenue development by comparing data from 2019 with data from 2020 (Figure 4). In order to maintain as large a sample size as possible, the comparison does not include revenue data from other years. The average revenue of all company categories has increased compared to the previous year. XL companies experienced the highest increase in revenue averages with a 43% increase. The average revenues of other company categories also increased, with the exception of XS and S companies whose revenue averages have decreased. The decrease may have been caused by the impacts of the COVID-19 pandemic, which has possibly weakened the business of the newest startup companies.

#### Revenue by company category 2019–2020 n=109

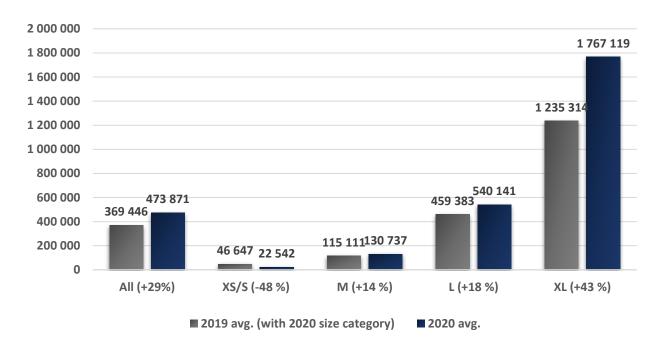


Figure 4. XL companies experienced the highest increase in revenue.

According to Vainu.io's latest data, the companies included in the report employed a total of 762 people (Figure 5). However, employment data could only be found for 120 companies, so the number does not include all startup companies in the region. Moreover, the employment information of some companies was several years old, meaning that not all information was not up to date. Figure 5 also shows the average number of personnel for each company category. XS companies employed an average of 3 people, and XL companies had an average of 17 employees. When comparing categories, the number of employees moderately increases from XS to L companies, but there is a significant increase between L and XL companies. Figure 6 illustrates the companies' expected personnel growth based on the startup survey's results. M companies have more modest expectations than S companies. Besides this difference, expectations for personnel growth are in linear alignment with the companies' revenue-based categorisation.

#### Numbeer of employees (latest) n=123

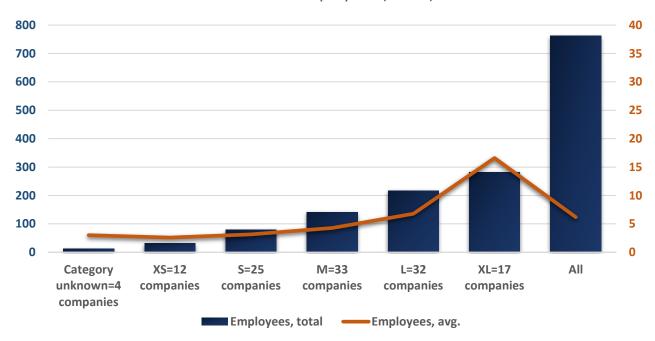
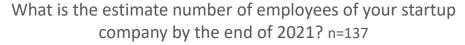


Figure 5. Number of employees in companies by category based on Vainu.io's latest data.



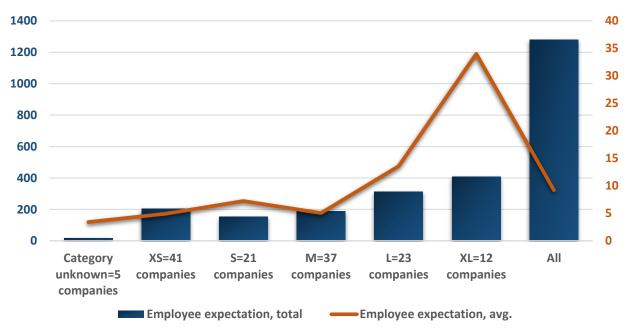


Figure 6. Number of startup company employees by category. The figure does not include companies whose revenue data was not available.

Figure 7 displays the growth in employee numbers compared to the previous years. The number of employees has increased in each category between 2019 and 2020. XL companies have experienced the most significant growth, with an average increase of 34% in the number of employees. Comparing employee numbers to previous years is somewhat difficult due to Vainu.io's lacking data, so the figure only accounts for the data of 42 companies.



Figure 7. The average increase in the number of employees from 2019, across all categories, is 24%.

#### 5.3. Age structure and the regional distribution of companies

All companies included in the report were required to be less than 10 years old. Despite the requirement, some older companies were included in the report as well (see previous section). In terms of foundation, the most active year was 2020, during which 34 companies were founded (Figure 8). The high number may be explained by the fact that IT companies founded in 2020 and 2021 were examined in more detail using Vainu.io to identify potential new startup companies. The 2020 startup survey for the Tampere Region predicted that fewer startup companies would be founded due to the COVID-19 pandemic, but based on the current data, the prediction was incorrect. The other significant year in the data is 2015, during which 31 startup companies were founded. This year may be significant due to Microsoft's decision to lay off employees, which caused many to seek new forms of employment by founding startups, for example (YLE 2015). Of the companies founded during the first half of 2020, 13 were identified as startups. It is likely that several other startup companies were also founded during this time, but they were not identified as startups in the report because they were in the very early stages of their development. As such, the total number of startup companies founded during the year may ultimately be close to the number of companies founded in 2020.

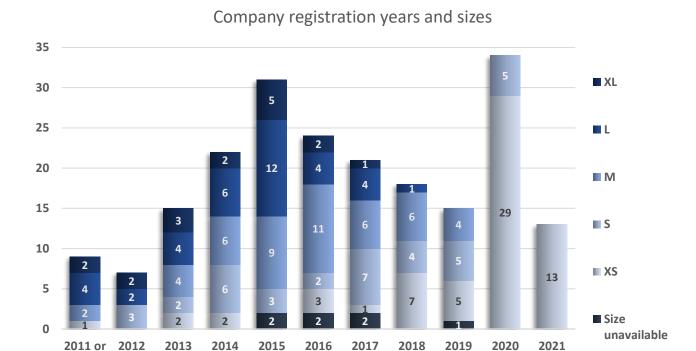


Figure 8. The revenue of startup companies correlates with their age.

earlier

When comparing the size categories of startup companies to the age structure, the companies logically increase in size with age. XS companies have mostly been founded within the last two years. Some XS companies are older and have not yet seen an increase in their revenue because of a long product development process which has delayed the creation of a saleable product. L and XL companies were proportionally most often founded in 2015. The highest revenue categories also include some younger companies: the newest XL company was founded four years ago. When examining Figure 8, it is important to note that the latest financial statements could not be acquired for all companies.

Most of the companies included in the report are located in Tampere (176 companies). The other 33 companies are distributed evenly across surrounding municipalities. The map in Figure 9 presents the number of companies and their sizes in each municipality. The figure also shows the change in the number of companies companies to the previous year. The number of startup companies has remained the same or increased in each municipality in the region.

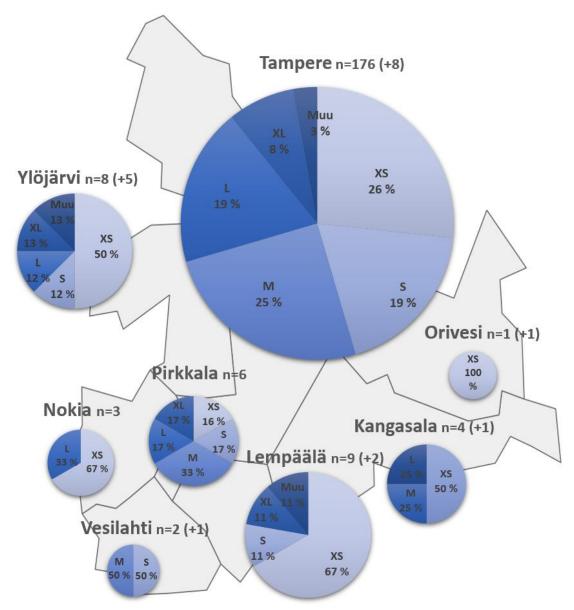


Figure 9. Startup company distribution in the Tampere Region and company sizes by municipality.

Tampere has the most startup companies in the region in proportion to population size (Table 4). The reason for this is likely the fact that many of the region's higher education institutions are located in Tampere. Other reasons include the city's business structure and the proportionally high level of education among the population. Nevertheless, the surrounding municipalities have seen a higher relative increase in the number of companies compared to Tampere. Ylöjärvi has experienced the most significant change, as the number of startups there has increased from three companies in the previous report to eight. The number of startup companies has similarly increased in Kangasala, Lempäälä, Orivesi and Vesilahti. The number of companies in Pirkkala and Nokia has remained the same. In six municipalities, most of the startup companies in the municipality are XS companies. The largest L and XL companies are rather evenly distributed across the region's different municipalities.

The startup companies in Tampere are mostly located near the city centre or in Hervanta (Image 1). The distribution of companies in the area is presumably connected to the locations of university campuses, resulting in a strong technology focus in Hervanta and an emphasis on health technology near the Tampere University Hospital, for example. Many business facilities are located near the Tampere city centre, which may also explain the relatively high number of companies in the area.

Table 4. Number of startups proportional to municipality population (\* Kuntien avainluvut 2021).

Municipality	Population*	Startups	Startup/Population %
Kangasala	32,214	4	0.01
Lempäälä	23,828	9	0.04
Nokia	34,476	3	0.01
Orivesi	9,008	1	0.01
Pirkkala	19,803	6	0.03
Tampere	241,009	176	0.07
Vesilahti	4,367	2	0.05
Ylöjärvi	33,352	8	0.02
Total	364,705	209	0.06

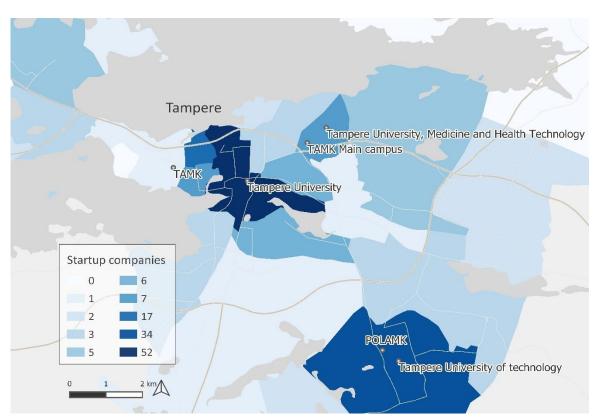


Image 1. Number of startup companies in Tampere by postal code. The image does not include Terälahti, which is home to one startup company.

#### 5.4. Industries and technologies

The industry categorisation in this report was not based on standard industrial classification (TOL classification). Instead, the categorisation was done from the startup companies' perspective. The categorisation used in the survey is based on the Finnish Business Angels Network's (FINAB's) categorisation. The traditional industrial classification may not necessarily provide a good overall picture of companies in certain industries, such as gaming, cleantech and health technology, even though such companies would most likely form significant categories among startup companies. Still, the categorisation originally used in the survey proved problematic, because several companies could not be placed into any pre-made category. For this reason, the most common responses that were originally placed in the "other" category have been made into the following categories: "animal health technology", "imaging technology", "positioning technology", "security technology" and "manufacturing technology". Only two companies represented logistics, so they have been placed in the "other" category. The "business services" category was difficult to define, so it has been excluded (Figure 10).

Technology companies are the most distinct category, as they encompass 31% of all companies. Other significant industries were — as expected — health care, health technology, gaming and entertainment, cleantech and bioeconomy. Companies that develop manufacturing technology were also common, and they were involved in manufacturing different types of high technology. The reason for the large number of health technology companies is likely the fact that there are high levels of technical and medical skill in the Tampere Universities community. Other contributing factors include the fact that companies are located close to the Tampere University Hospital, which allows them to conduct long-term research and hire skilled workers. Most companies in the gaming industry make mobile games, but there are also some companies that are developing more in-depth PC games which have a longer development cycle.

Figure 11 demonstrates which categories the companies in the survey are divided into according to the TOL classification data downloaded from Vainu.io. Different industries are represented with letters. The classification does not separate gaming companies from other software companies, so the software industry (J – Information and communication) is more strongly represented in this categorisation compared to the categorisation used in the report.

#### What is your main field of operation? n=209

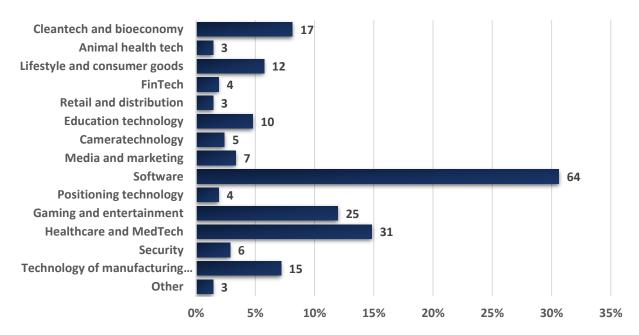


Figure 10. Software technology companies are the most distinct category. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

#### Industry classification according to TOL classification n=209

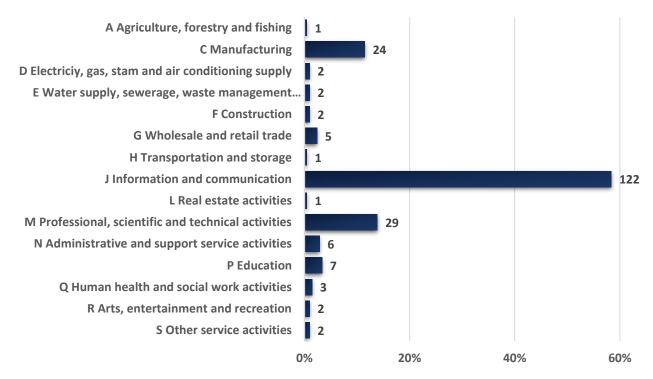


Figure 11. According to the TOL classification, the largest industry among startup companies is clearly the information and communication industry. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

Survey respondents were also asked to share keywords that describe their company's technology or service. The purpose of the question was to help Business Tampere experts identify startup companies that could be attached to the region's business ecosystems. The question included 18 prewritten keywords which the respondents used very unevenly. Most companies responded using the "other" option. These responses also varied greatly. Figure 12 includes the 18 pre-written keywords as well as the keywords "gaming" and "education", which were made into their own categories based on how many respondents used them in the "other" category. Of the pre-written keywords, *SaaS* (System as a Service) was the most popular. The question proved challenging during interviews, as some answers overlapped with the industry categories used in the survey.



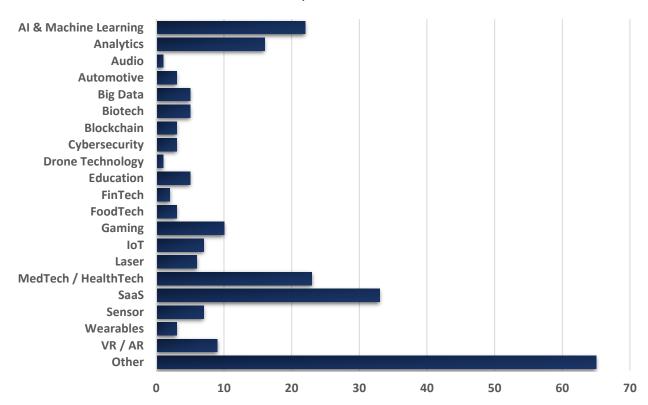


Figure 12. SaaS, Al & Machine Learning and MedTech / HealthTech are the most significant keywords for companies.

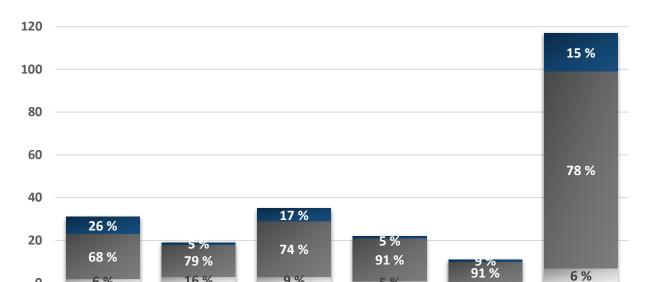
#### 5.5. The effects of the COVID-19 pandemic

In total, 73% of the companies included in the report said that the COVID-19 pandemic had an effect on their business. In addition to the pre-written alternatives, many companies reported other effects that have been made into their categories in Figure 13. A total of 21 companies said that forming new customer relationships had become more difficult because attending conventions and meeting customers face-to-face was not possible. The situation affected employee numbers in 16 companies, most of which saw a decrease in the number of employees. The effects to international operation were mostly negative due to slowed air traffic and the effects the pandemic had on market areas. In addition, 31 companies said that growth had slowed down, meaning that they did not reach their goals for growth. On the other hand, 4 companies reported that their business had become more seamless thanks to factors such as rapid digitalisation. There were 6 companies that had to implement considerable changes as their business or product development was reformed to better fit the new requirements of the time. Furthermore, 53 companies said that their revenue had been impacted. A third of these companies had seen an increase in their revenue due to the effects of the pandemic, whereas the revenue of the other companies had decreased. In regards to financing, the process of seeking financing had slowed down for 24 companies, and 5 companies experienced an increase in financing.

#### How has the Covid-19 situation effected your business? n=122 More difficult to form customer relations The number of employees increased 4 The number of employees decreased 12 International operations weakened 38 International operations strengthened 3 **Growth slowed** 31 **Business or RDI renewed** 6 Revenue decreased 38 Revenue increased 15 Search of funding slowed down 24 **Funding increased** 5 Other 0% 5% 10% 15% 20% 25% 30% 35%

Figure 13. The COVID-19 pandemic has affected all startup companies of different sizes. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

The COVID-19 pandemic had the most significant negative impact on L and XL companies, whereas XS companies were the least negatively affected (Figure 14). Several XS companies included in the report were founded after the beginning of the COVID-19 pandemic, so the business of some companies was defined by the operating models brought about by the pandemic. When examined by industry, the pandemic had the least significant impact on health and education technology companies (Figure 15). The increase in digitalisation that the pandemic caused has benefitted companies working in both of the aforementioned industries. Proportionally, companies working with security technology reported even fewer negative impacts, but due to the small sample size, it would be unwise to draw direct conclusions about the matter.



The COVID-19 pandemic's effects by category n=118

Figure 14. The largest startup companies were most significantly impacted by the COVID-19 pandemic.

■ Negative impact

L

■ Positive impact

M

XL

All

0

XS

S

Neutral

#### The COVID-19 pandemic's effects by industry n=118

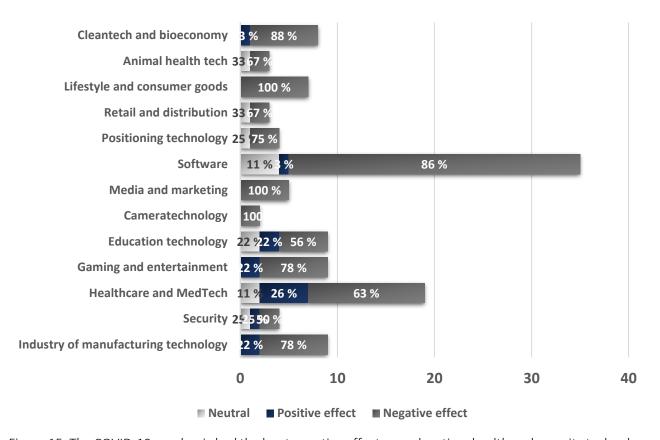


Figure 15. The COVID-19 pandemic had the least negative effects on education, health and security technology companies.

#### 5.6. Entrepreneur backgrounds and company ownership

The survey gathered information about the backgrounds of startup entrepreneurs and entrepreneurs who were likely to be startup entrepreneurs. To this end, the survey included a question about whether a company's founders had established a company before. For companies that were included in the survey through previous expert contacts, the company backgrounds were confirmed on the Fonecta Finder service to ensure that the data in the report was as extensive and reliable as possible. Based on these sources and the survey, at least one of the founders has previously founded a company in 144 companies or 69% of all companies (Figure 16). This is a notably high number.



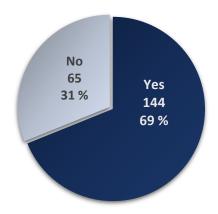


Figure 16. Most startup company founders have previously founded a company.

Some respondents said that they also considered small-scale entrepreneurial activities, such as private trader activities, to be entrepreneurship, so the data was processed in more detail using Fonecta Finder. Those who reported having previous entrepreneurship experience were divided into three categories: small-scale entrepreneurship, ordinary entrepreneurship and serial entrepreneur. Small-scale entrepreneurship refers to working as a private trader or being part of a co-operative. Ordinary entrepreneurship refers to people who have held positions as CEOs or been members of the board in 1–3 companies that are not startup companies. Serial entrepreneurs are people who have previously founded a startup company and people who have previously founded several companies.

When examining the more detailed backgrounds, it becomes apparent that the founders of 83 companies (40% of all companies) include serial entrepreneurs who have a robust background in entrepreneurship (Figure 17). That said, it is important to remember that the number is only an estimate. Fonecta Finder does not provide information on which of the people registered in the service were involved in founding the company. The basis for the sample is founder information provided by the survey and deduction based on people's positions and titles.

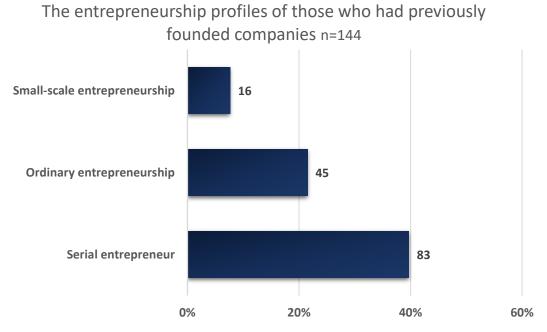


Figure 17. The entrepreneurship profiles of those who had previously founded companies based on data on Fonecta Finder. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

There are clear connections between the entrepreneurship background of entrepreneurs and startup company revenues (Figure 18). Those with backgrounds in small-scale entrepreneurship have mostly founded companies that have a small revenue. Companies with an XL revenue do not include any people with a background in small-scale entrepreneurship. Experienced serial entrepreneurs make up the highest proportion of each revenue category. It is interesting that people who have no experience with entrepreneurship are present in each category. The reason for this may be that people who have previously worked in large technology companies have founded startup companies based on the experience they gained during their careers.

### Relation between entrepreneurial background and company revenue n=202

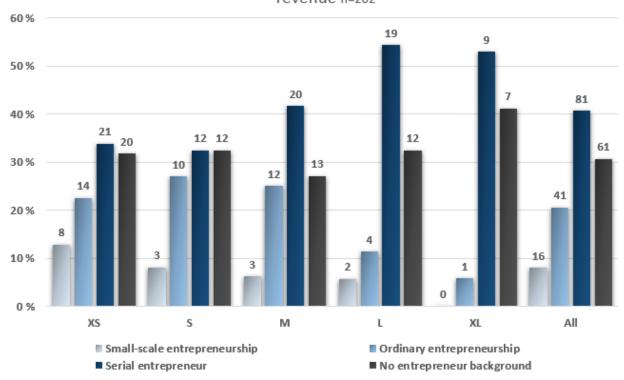


Figure 18. There is a connection between the backgrounds of startup entrepreneurs and the company revenues. The bars represent the number of responses, while the Y axis represents the proportion of responses relative to all data.

Several respondents felt that the question about how many shareholders were mainly occupied in their company's business could be interpreted in many ways. Many based their answer on whether shareholders got their earned income through the company. Most of the companies included in the statistics had two founders (Figure 19). The second largest category was companies founded by one person (28%). In total, 21% of the respondents said that their business involved 4 or more shareholders, while 17% said that their business involved 3.

# How many shareholders are mainly occupied in your business? n=170 54 32 36

Figure 19. Most of the startup companies included in the statistics had two people who were mainly occupied in the business. The bars represent the number of responses, while the Y axis represents the proportion of responses relative to all data.

4 or more

3

#### 5.7. Target demographics and maturity phases

40%

30%

20%

10%

0%

1

A total of 194 companies responded to the question regarding the companies' primary customer base (Figure 20). The companies could select one or several alternatives. The overwhelming majority (79%) of respondents named Business to Business (B2B) customers as their company's primary customer base, as the startup companies developed products or services for professional use by other companies. The second most common customer base was Business to Consumer (B2C) customers, who were mentioned by 29% of respondents. The smaller categories included Business to Business to Consumer (B2B2C) and Consumer to Consumer (C2C) customers as well as Business to Government (B2G) customers for companies that made procurements for the public sector.

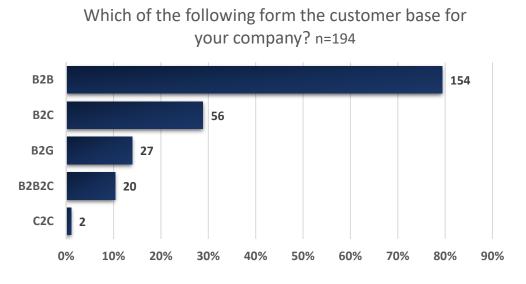


Figure 20. B2B customers were most often highlighted in the responses. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

In the survey, the startup companies' maturity phases were divided into six phases based on the Dealflow service maintained by Business Finland. The phases were research, pre-revenue, revenue, expansion, pre-ipo and buyout. The research phase refers to companies that are still doing research or just starting. Companies in the pre-revenue phase strive to strengthen their business model with methods such as free "pilot" customers. As the business model becomes more stable, the company aims to increase revenue as quickly as possible with paying customers. Once the company has achieved a strong foundation in the domestic market, the company begins to focus on scaling, international growth – expansion. Before the company enters the stock exchange, the company goes through the phase called pre-IPO (initial public offering). During this phase, the company increases its funding by trading shares and securities. The final phase that startup companies aim to reach is the buyout phase.

In total, 53% of respondents said that their company was in the revenue phase (Figure 21). The prerevenue phase constituted the second-largest category, encompassing 25% of companies. These
companies did not yet have a revenue stream, but they were testing their products through methods
such as pilot tests. Furthermore, 8% of companies were in the even earlier research phase. The line
between the expansion phase and the revenue phase is sometimes ambiguous, but 11% of
companies said that they were in the expansion phase. Finally, only one company was in the pre-IPO
phase, while another company was in the buyout phase. One reason for the distribution may be the
method with which companies were selected for the survey. As IT startups founded in 2020 and 2021
were identified and selected for the report with great precision, the previous and current year
become emphasised in the data, and it is likely that these companies are still in the research or prerevenue phases due to their relatively young age. Because of the quick trials and creative destruction
inherent to startup culture, many companies intentionally do not proceed beyond the research
phase. Almost all companies that had been previously identified as startup companies and were over
10 years old were excluded from the report. However, such companies would most likely be further
along in their development.

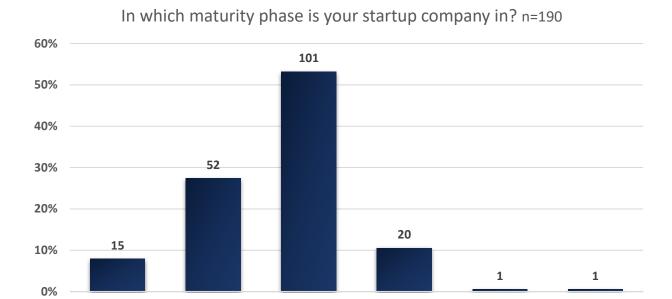


Figure 21. Company maturity phases. The bars represent the number of responses, while the Y axis represents the proportion of responses relative to all data.

**Expansion** 

Revenue

Pre-IPO

**Buyout** 

## 5.8. Funding

Research

Pre-revenue

Of the companies that responded to the survey, 70 said that they have an active funding round this year (Figure 22). A total of 72 companies talked about the phase of the funding round, and most of them said that they were currently raising seed capital (Figure 23). None of the companies included in the survey were in round C or round D. Figure 23 also includes the funding round phases for companies from the 2020 Tampere Region startup survey.

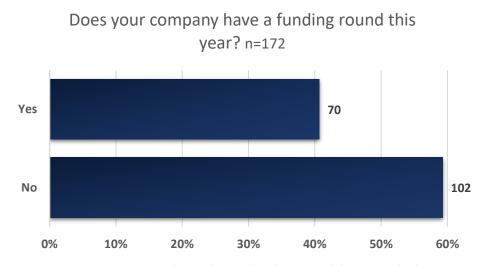


Figure 22. Most companies do not have a funding round this year. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

## In which funding round phase is your startup company on?

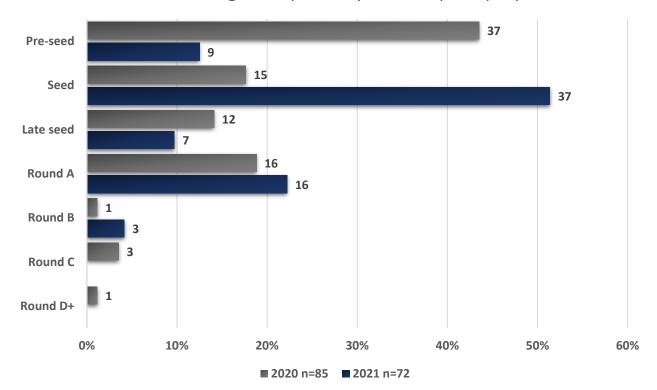


Figure 23. The funding round phases display significant differences between the companies included in the report in 2020 and 2021. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

The approximate amount of capital funding was reported by 134 companies (Figure 24). Several companies included public funding into the amount, so the data does not represent the number of companies that received private capital funding. Of the respondents, 53% said that they had received less than EUR 50,000 in capital funding. This includes companies that have not received any outside capital funding. The other companies were evenly distributed among the different funding categories, although companies that received over one million euros in funding were the second largest category. In total, 19 companies or 14% of all companies received over one million in funding. Figure 24 also displays funding data for the 2020 survey.

# How much capital funding your startup company has received so far?

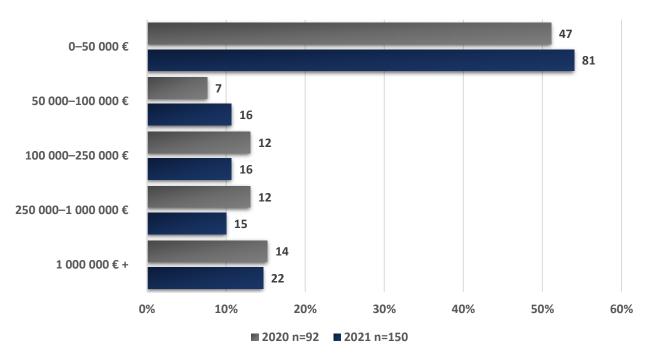


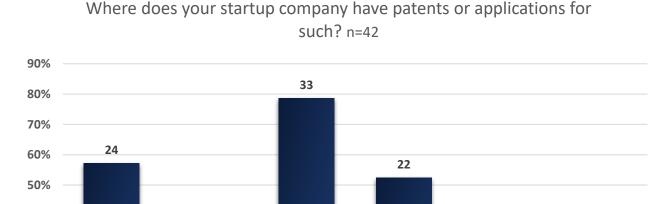
Figure 24. The amount of capital funding companies received in 2020 and 2021, including public and private funding. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

#### 5.9. Patents

For the question regarding patents, 44 companies (25% of all companies) said that they have patented products or in-progress patent applications. Some companies with in-progress patent applications specified that while patents were not yet relevant to them due to cost reasons, they were planning on patenting in the future. A total of 43% of the companies included in the report were software or gaming companies for whom patenting is very rare or almost completely impossible. Patenting is also not important for protecting products in these companies. The patents were most often related to material products whose developers were a minority among the companies included in the report. This explains the low number of patents among startup companies.

Of the companies that had patents or in-progress patent applications, 42 mentioned which regions their patents applied to (Figure 25). The different regions were selected 97 times, meaning that companies have patents in several regions. In total, 33 companies have patents in Europe, at least, although not all of these companies have patents in Finland if their marketing is focused on

international markets. The United States was, as expected, a very popular patenting region, with 22 companies having patents in the country. In fact, the United States was mentioned almost as many times as Finland. Asia was mentioned by 10 companies. A total of 6 companies said that they had applied for a global patent, usually through the international PCT system. Lastly, 2 companies mentioned other patenting regions, including South America and Australia.



20%
10%
Finland Asia Europe USA Global Other

10

Figure 25. Most patents focused on Europe and the United States. The bars represent the number of responses, while the Y axis represents the proportion of responses relative to all data.

#### 5.10. Internationalisation

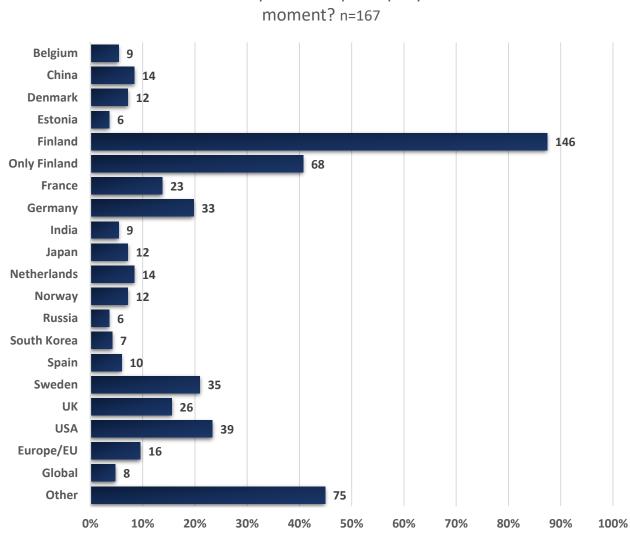
40%

30%

Questions related to internationalisation included a question about the geographical location of each company's current customer base and a question about the regions in which companies wanted to gain customers in the future. A total of 146 companies (87% of all companies) said that they currently operated in Finland, and 68 of them operated only in Finland. This means that 99 companies (59% of all companies) already have international exports. The most popular market region next to Finland was the United States, as 23% of respondents exported products and services there. The second most popular exporting country was Sweden with 21% and the third most popular country was Germany with 20%. Additionally, 5% of companies said that they operated globally without a more detailed

description. Figure 26 only displays specific data for countries and regions that were mentioned more than 6 times, so the "other" category includes several different countries. The wide variety of countries demonstrates that startup companies have successfully found many different regions in

In which market areas your startup company has clients at the



addition to the traditional export locations.

Figure 26. Companies have many different market regions outside the domestic market. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

When asked about market regions that startups wished to increase the number of customers in, the companies highlighted the same regions that already had many customers — Sweden, the United States and Germany were the most popular regions next to Finland. The responses also include companies' current market regions. Figure 27 displays market regions that were mentioned more than 7 times. All other regions are included in the "Other" category.

# In which marketing areas is your startup company aiming on increasing the amount of clients in the future? n=176

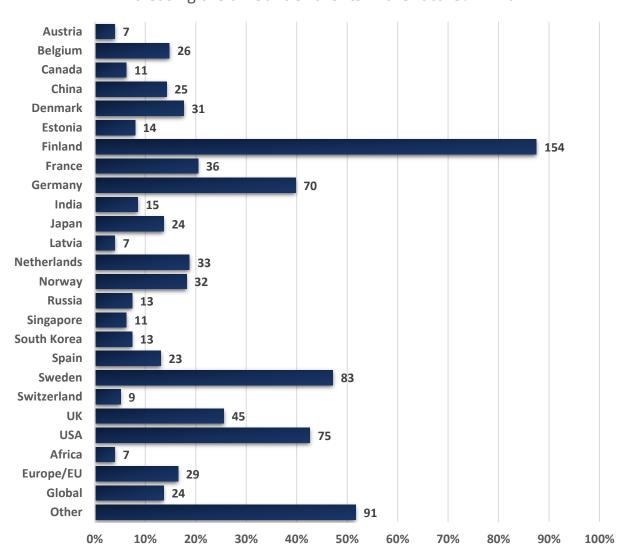


Figure 27. The market regions in which companies would like to increase their number of clients highlighted the same regions where companies already had clients. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

#### 5.11. Need for assistance

Two questions were included in the survey to examine the companies' need for assistance. The first question was about whether companies needed help with internationalisation. The second question, then, was about whether companies needed help with any other side of their business development (Figure 28 and Figure 29). The alternative answers to the questions were written to cover currently available public business services. During phone and expert interviews, the companies' needs were met with immediate answers. The interviewer told the interviewee about potentially helpful services to the best of their ability. The phone and expert interviews also did not systematically cover every possible alternative answer, which likely affects the results.

Responses regarding assistance with internationalisation emphasised assistance with funding, which was mentioned by 47% of respondents. Furthermore, 41% of respondents said that they needed assistance with finding partners who would know the company's target country. The next most common area where respondents needed assistance was getting to know markets, which is most likely related to finding partners. Finally, 35% of all companies said that they did not require assistance.

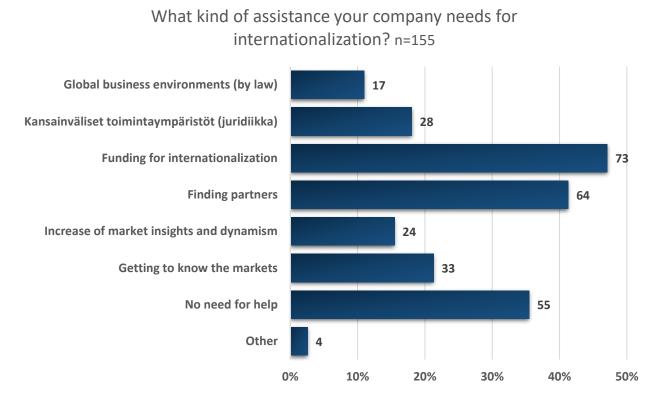


Figure 28. In terms of internationalisation, companies highlighted needing assistance with funding and finding partners who would know the company's target country The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

In other areas of business development, companies often needed assistance with the same matters that were emphasised in regards to internationalisation: 41% of companies said that they needed assistance with finding funding contacts and 39% said that they needed assistance with building partner networks. A quarter of all respondents said that they needed assistance with recruitment. In comparison to the question regarding internationalisation, a noticeably smaller number of respondents said that they did not require any assistance with business development. A possible reason for this difference is that many companies still only operate in the domestic market and are aiming to first find a place in the Finnish market before internationalisation.

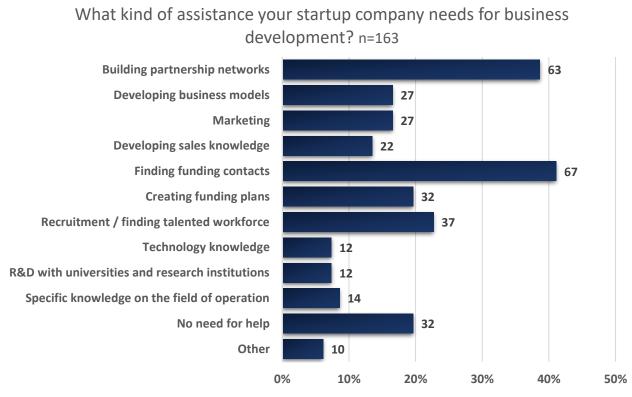


Figure 29. Need for assistance in business development The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

The need for assistance in business development and the backgrounds of entrepreneurs were cross-referenced to discover possible connections (Figure 30). Based on the analysis, company founders with backgrounds in entrepreneurship needed assistance with matters such as funding and recruitment, which are relevant to well-growing companies. People who did not have any previous experience with entrepreneurship required assistance with matters such as sales, which support early business. The need to develop sales knowledge is related to entrepreneurs as individuals, whereas

recruitment and funding are related to companies. Still, the differences in where people need assistance are not significant.

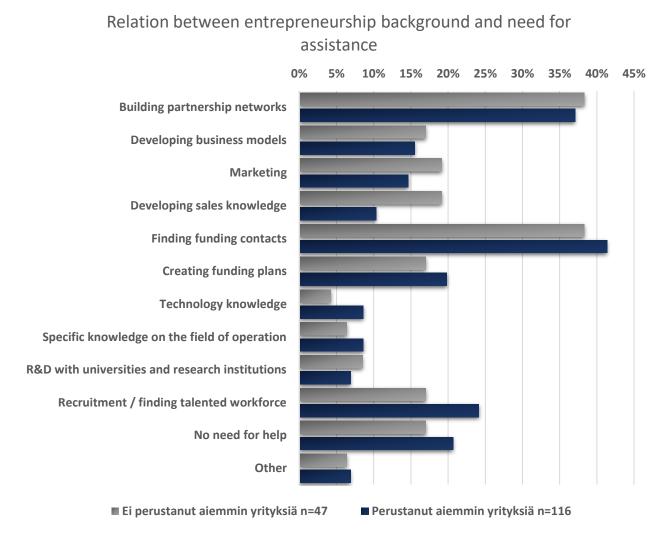


Figure 30. Entrepreneurs' need for assistance relative to entrepreneurship background.

#### 5.12. Public business services

The survey aimed to examine how accessible public business services were to startup companies. The survey included three questions about public business services. The questions examined which public business services had been the most beneficial, which services failed to live up to expectations and which services companies would have needed but had not found. Most respondents answered the questions on an organisational level (Figure 31), but many also specified which services they had used (Figure 32).

A total of 97 companies (64% of all companies) said that they used Business Finland's business services, making Business Finland the most used business service organisation. In addition, 29

companies specified that they had used the organisation's Tempo funding, while 13 companies had used the organisation's COVID-19 funding. The actual numbers are likely higher, since many companies only mentioned Business Finland as an organisation. The second most used services were the services of the local Centre for Economic Development, Transport and the Environment (ELY Centre). These services were used by 48% of respondents. The third most popular organisation was Business Tampere. The services that companies used included funding clinics and expert services, for example. In total, 38% of respondents had used the services. During phone and expert interviews, companies were informed of potentially helpful Business Tampere services, which will likely increase the number of startups that make use of the services in the future.



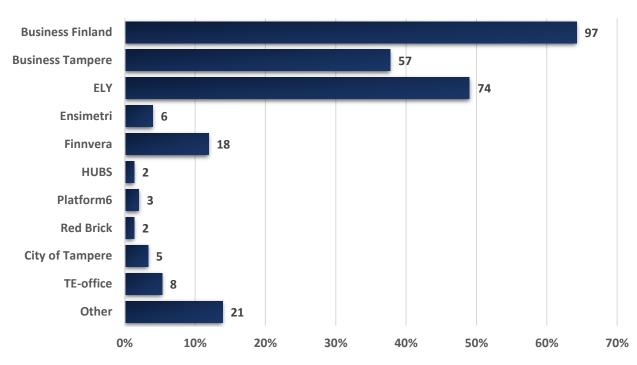


Figure 31. Public organisations whose services companies had used to develop their business. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

The question regarding services that failed to meet expectations was answered by 32 companies. Of the respondents, 11 were unsatisfied with the criteria for receiving public funding. A few respondents said that startups were in a disadvantageous position when applying for public funding. Furthermore, 5 respondents said that the service process of public business service organisations had problems.

Other points of dissatisfaction included collaborating with organisations when making procurements and identifying the concrete aspects of services.

When asked which areas of business development companies would like public services for, 47 companies provided comments. Several companies – 11 in total – said that they would like more support for internationalisation, particularly matters such as funding and operating in a target country. Moreover, 9 companies said that they would like more assistance with funding, including funding for internationalisation. The respondents would also like public services that would support recruitment, sales and marketing as well as strengthen collaboration between startups and promote collaboration opportunities between startups and organisations and large companies.

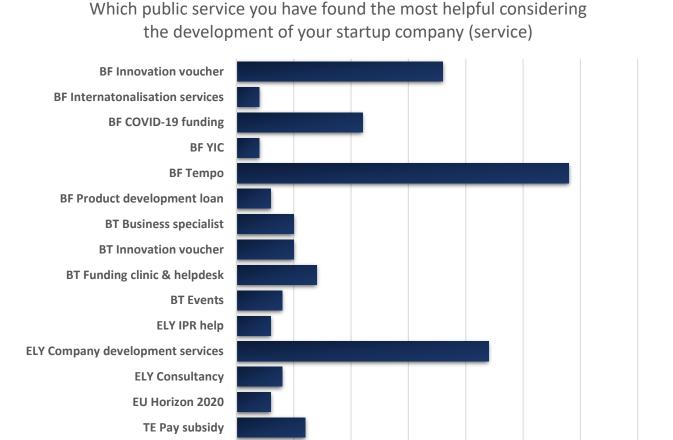
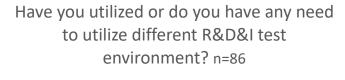


Figure 32. Public organisation services that companies have used. Many companies only mentioned organisation names, so the actual service-specific numbers are higher.

**TE Startup grant** 

#### 5.13. RDI environments

The survey included three questions about the use of RDI platforms in the Tampere Region. The questions were used to study whether startup companies were familiar with the platforms and environments, whether they had used any platforms or environments and if they were satisfied with them. Many of the pre-written alternatives were platforms and environments involved in the Tampere Smart programme, and their purpose was to offer companies in the region the opportunity to test the functionality of in-development products. The alternatives were only applicable in certain industries, which is why many companies had difficulties with the questions. Nevertheless, the aim of the questions was to encourage startup companies to use the platforms. A total of 86 companies responded to the question about the use of RDI platforms, and 23 of the respondents had used an RDI platform or platforms (Figure 33). In the responses, 4 companies said that they had used the "Hiedanranta future city district" environment, 4 companies said they had used the MedTech and HealthTech testbeds of Tampere University and 2 companies had used the university's industrial testbeds. Only 1 company said it had used the Vuores wood construction area, and another company had used the Hervanta Smart City area. Finally, 7 companies had used some other platform in the region. A total of 37 companies expressed interest in learning more about the testing environments listed in the survey.



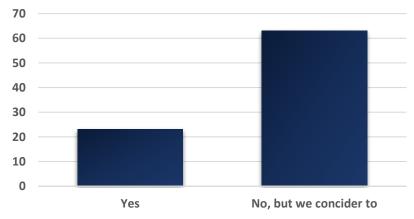


Figure 33. Some startup companies were familiar with the Tampere Region's RDI environments.

#### 5.14. Satisfaction with the operating environment

The survey included three questions that measured how satisfied companies were with Pirkanmaa as an operating environment. The companies could express their thoughts about operating in Pirkanmaa and comment on whether collaboration between startups in the region was important using a scale of 1–10. However, the descriptive responses from phone interviews were set on a scale of "not at all satisfied / not at all important – very satisfied / very important".

Most respondents appear to be satisfied with Pirkanmaa as an operating environment (Figure 34). Only a few companies said they were dissatisfied. When the companies were asked about their future plans, none expressed a clear desire to move away from Pirkanmaa within the next year, and only two companies said that they were considering moving (Figure 35). The rest of the companies said that they would stay in Pirkanmaa in the future. Responses to the question about collaboration were more varied (Figure 36). Collaboration was considered important overall, but several companies also said that they do not collaborate with other startups in the region at all. Regardless, many companies that did not collaborate with other startups still said that they worked with other companies in the region.

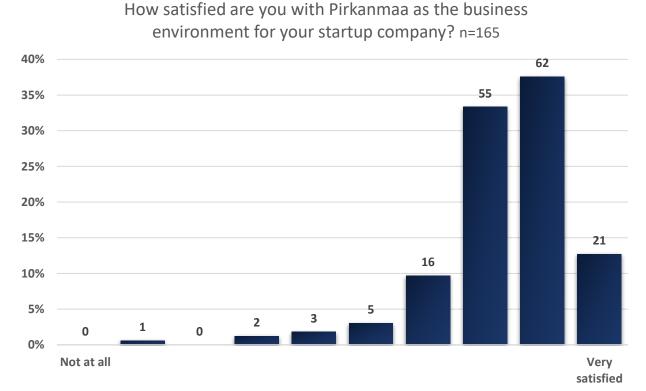


Figure 34. Companies were very satisfied with the Tampere Region as an operating environment. The bars represent the number of responses, while the Y axis represents the proportion of responses relative to all data.

# Is your startup company planning on moving away from Pirkanmaa during the following 12 months? n=145

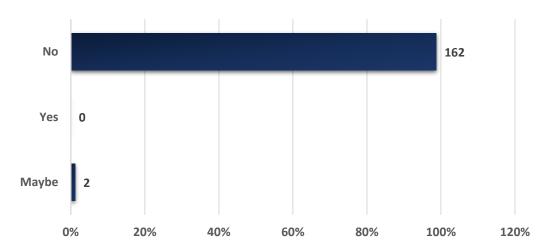


Figure 35. No company expressed a clear desire to move away from Pirkanmaa in the next 12 months. The bars represent the number of responses, while the X axis represents the proportion of responses relative to all data.

# How important is the cooperation with companies in Pirkanmaa region for your startup company? n=133

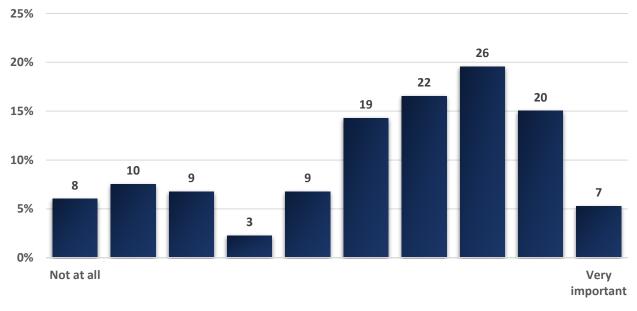


Figure 36. Responses about the importance of collaboration between startups in the region were varied, but collaboration was still considered important, overall. The bars represent the number of responses, while the Y axis represents the proportion of responses relative to all data.

#### 5.15. Signals

Vainu.io uses AI to collect individual, categorised data called signals from media sources. The signals provide information about special recognition that companies have received. This information is categorised and presented in Table 5 below. The signals include signals that companies have generated since their foundation and in the past 12 months, excluding recruitment signals, which only took the past 3 months into account. The signal data was downloaded from Vainu.io on 20 August 2021. The following paragraphs examine the signals from the past 3–12 months.

The "notable customer/project wins" signal identified 7 cases related to startup companies collaborating with municipalities or larger companies. All signals came from different companies. The "partnerships and collaborative projects" signal identified 40 cases in 15 companies. This means that several companies generated more than 1 signal. For example, BearlT Oy was mentioned 6 times, and the mentions were related to different collaborative projects, such as collaboration with Subway. ReceiptHero Oy also generated 6 signals, 4 of which were related to the same collaborative project with EuroCard. Omnichannel Retail Services Oy generated 3 signals about opening a retail location at the Sokos Tampere store and about participating in the Pirkanmaan Kasvupolku event. Tussitaikurit Oy generated 3 signals, all of which were related to collaborating with the City of Helsinki. Many other companies also generated 1 or 2 signals in different contexts.

The "subsidies, grants and funding" signal identified 15 different cases related to 13 companies. BearIT oy and Meluta Oy were mentioned twice. The signals included mentions of EU funding and ELY subsidies given to companies, for example. There were a total of 19 award and certificate signals, and they were related to 15 companies. Vertics Oy was mentioned 4 times when the company's CEO was granted the Helsinki metropolitan area's Young Entrepreneur of the Year award. Digi Toilet Systems Oy was mentioned 2 times. The mentions were related to the fact that the company was awarded an international award for female entrepreneurs as well as a local entrepreneur award. A total of 2 companies had mentions related to being selected for Pirkanmaan Kasvupolku.

The "patents and trademarks" signal revealed that 4 companies had applied for patents within the last 12 months. There were a total of 19 signals related to new products or services from 13 companies. Of these signals, 4 were related to StepOneTech Oy introducing an ethanol update for petrol cars, 2 to Plasmonics Oy developing antiviral surface treatment, 2 to ReceiptHero Oy's digital receipts developed for R-Kioski stores and 2 to Blokgarden Oy's product development.

The "recruitment" signal identified 36 mentions from the past 3 months for 8 companies. However, some signals were related to the same job posting that was published on different platforms. Companies were looking for project and sales directors as well as people with experience in full stack development and other software, for example. 17,089

Table 5. The signal data downloaded from Vainu.io represents occasions where the companies included in the report were mentioned in different media sources.

Signal	Mentions in 12 months	Mentions total	Mentions in data (%)	Mentions in data, BT customer profile (%) 4/2021	Mentions in data (%), all LLCs in the region
Notable customer/project wins	7	17	8.1		2.9
Partnerships and collaborative projects	40	49	23.4	39.3	4.2
Subsidies, grants and funding	15	96	45.9		4.0
Awards and certificates	19	39	18.7		7.7
Patents and trademarks	4	15	7.2	9.5	0.8
New product/service	19	35	16.7	29.4	3.2
Recruitment	36*	66	31.6	28.4	17.8

<sup>\*</sup>The recruitment signals are from the past 3 months.

When comparing the relative number of signals to the total number of signals generated by all of Business Tampere's customer companies, the number of recruitment signals is notably higher compared to other companies. This indicates that startup companies recruited slightly more employees compared to the average Business Tampere customer company. However, the signal search for all companies was carried out 4 months before the signal search for startups, which may affect the validity of the results. Compared to all limited liability companies in the region, startups generate considerably stronger signals. The recruitment signal is the strongest among all companies in the region, but it is notably weaker compared to the signals generated by startup companies and Business Tampere's customer companies.

### 5.16. Previous startups and startups that have moved away

Some of the companies included in the report (Table 6) were old startup companies that could no longer be considered startups due to their standardised business model or increased number of employees. Of these 17 companies, 11 had a revenue of over EUR 1 million, and the companies' total revenue exceeded EUR 180 million. The companies experienced an approximately 20% increase in their revenue between 2019 and 2020. The companies employed more than 1,000 people in total (Vainu.io 2020; Aamulehti 2021; Helsingin Sanomat 2021). Regarding industries, 5 companies operated in the gaming industry, 4 in software technology and 4 in manufacturing. The largest highgrowth companies in the group were Framery Oy, which employed 350 people, and Unikie Oy, which had 410 employees (Aamulehti 2021; Helsingin Sanomat 2021).

Table 6. Previous startup companies that employ over 50 people or are over 10 years old.

Previous startup companies			
10tons Oy	Hyperkani Oy		
Arctic Biomaterials Oy	Jolla Oy		
Atostek Oy	Kyy Games Oy		
Beiz Oy	Team Action Zone Oy		
CoreHW Oy	Traplight Oy		
FlowBrainer Oy	Unikie Oy		
Framery Oy	Wirepas Oy		
HappyOrNot Oy	WordDive Oy		
Havamax Solutions Oy			

There were a total of 7 companies that had moved away from the Tampere Region (Table 7). The companies' combined revenue was nearly EUR 5 million, and they had almost 50 employees. More than half of the companies had moved to the Helsinki metropolitan area, and most of them worked in software technology.

Table 7. Startup companies that moved away from the Tampere Region within the last 12 months.

Startup companies that moved away			
Chainfrog Oy	Mad Finn Brewing Oy		
Euroeat Oy	MEDI Connection Oy		
Fluidit Oy	Pikadev Oy		

## 6. Conclusion

The number of startup companies in the Tampere Region increased between 2020 and 2021, but the high turnover rate typical for startups makes it difficult to track the exact number of companies at any given time. The increases in revenue and employee numbers focused on XL companies which also had the most optimistic forecasts for the coming year. The largest companies also had the most success in predicting their growth. Similar developments would also be desirable in smaller companies. Still, it is important to remember that the principle of creative destruction in a high-risk environment is inherent to startup ecosystems, meaning that it is good to identify unsuccessful business models and start developing new ideas quickly. Unlike in traditional entrepreneurship, this is not considered a failure but rather a vital part of startup culture, which should be supported.

Each of the eight municipalities in the Tampere Region had startup companies, and the L and XL companies were distributed evenly among municipalities. Most startups worked in the software industry, but the companies within the industry were engaged in different activities, from game and software development to providing SaaS services. The startup companies in the report included many companies working with different technologies ranging from health to laser technology. These types of activities are strongly supported by the research work that universities do. The fact that B2B customers are the most common customer base among companies is most likely the result of which industries the companies focus on. The target countries highlighted in the report's data included Finland, the United States, Sweden and Germany, but companies had a wide variety of export countries.

The number of so-called serial entrepreneurs was particularly high among the founders of large startup companies, but first-time entrepreneurs had also been successful in growing their companies. As a result, there is no definitive profile for a startup entrepreneur.

The COVID-19 pandemic had affected many startup companies negatively. The negative effects include slowed international growth and difficulties in acquiring customers due to the lack of face-to-face meetings, as there were no events such as industry conventions. On the other hand, the COVID-19 pandemic did not appear to have an effect on the establishment of startup companies. In fact, there were more new, innovative companies founded this year than in previous years. XS companies and startups in the education and health technology industries reportedly experienced the least negative effects. When asked about the need for assistance, companies often highlighted

needing assistance in seeking funding. Most companies had already discovered national funding services. Almost half of the companies said they were seeking private risk financing this year to ensure their growth.

The startup companies were almost unanimously satisfied with the Tampere Region as an operating environment. However, the collaboration between startups should be developed further. The public sector is aiming to strengthen collaboration with its actions.

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## **Appendices**

### Appendix 1: Tampere Region startup survey

- 1. Mikä on startup-yrityksenne nimi? / What is the name of your startup company?
  - (Avoin vastaus) / (Open reply)
- 2. Mikä on yrityksenne y-tunnus? / What is the business identification code of your company?
  - (Avoin vastaus) / (Open reply)
- 3. Mikä on startup-yrityksenne tärkein toimiala? (Valitse paras vaihtoehto) / What is your main field of operation? (Choose the most fitting option)
  - Peli- ja viihdeala / Gaming and entertainment
  - Logistiikka / Logistics and transport
  - Terveydenhuolto ja terveysteknologia / Healthcare and MedTech
  - Cleantech ja biotalous / Cleantech and bioeconomy
  - FinTech
  - Media ja markkinointi / Media and marketing
  - Yrityspalvelut / Business services
  - Elämäntyyli ja hyödykkeet / Lifestyle and consumer goods
  - Jälleenmyynti ja jakelu / Retail and distribution
  - Koulutusteknologia / Education technology
  - Muu, mikä? / Something else, what?
- 4. Mitkä avainsanat kuvastavat parhaiten teknologiaa tai palvelua johon startup-yrityksenne on erikoistunut? / Please share some keywords on the technology or service you are most specialized in?
  - Al & Machine Learning
  - Analytics
  - Audio
  - Automotive
  - Big Data
  - Biotech
  - Blockchain
  - Cybersecurity
  - Drone Technology
  - FinTech
  - FoodTech
  - Internet of Things
  - Laser
  - MedTech / HealthTech
  - SaaS
  - Sensor
  - VR / AR
  - Wearables
  - Other, what
- 5. Minkä pääongelman startup-yrityksenne pyrkii ratkaisemaan? / What is the main problem your company is aiming to solve?
  - (avoin vastaus) / (Open reply)

- 6. Kuinka monta osakasta startup-yrityksessänne on mukana? / How many stockholders your startup company has?
  - 1
  - 2
  - 3
  - 4 tai enemmän / or more
- 7. Kuinka moni osakkaista on päätoimisesti mukana liiketoiminnassanne? / How many shareholders are mainly occupied in your business?
  - 1
  - 2
  - 3
  - 4 tai enemmän / or more
- 8. Oletko, tai ovatko muut yrityksen perustajat perustaneet aiemmin yrityksiä? / Have you or any of the other founders established a company before?
  - Kyllä / Yes
  - Ei / No
- 9. Mitkä ovat startup-yrityksenne pääasialliset asiakkaat? / Which of the following form the customer base for your company?
  - B2B (Business to Business)
  - B2C (Business to Consumer)
  - B2G (Business to Government)
  - C2C (Consumer to Consumer)
  - B2B2C (Business to Business to Consumer)
- 10. Onko startup-yrityksenne kasvuhakuinen? / Is your startup company aiming for growth?
  - Nopea kansainvälinen kasvu / Fast, international growth
  - Vakaa kasvu / Stable growth
  - Ei kasvutavoitetta / Not aiming for growth
- 11. Mikä on startup-yrityksenne arvio liikevaihdosta vuoden 2021 loppuun mennessä (tilikausi)? / What is the estimate revenue of your startup company by the end of 2021 (financial period)?
  - (Avoin vastaus) / (Open reply)
- 12. Mikä on arvio startup-yrityksenne työntekijöiden määrästä vuoden 2021 loppuun mennessä? / What is the estimate number of employees of your startup company by the end of 2021?
  - (Avoin vastaus) / (Open reply)
- 13. Onko koronatilanne vaikuttanut liiketoimintaanne? / Has the Covid-19 situation effected your business?
  - Kyllä / Yes
  - Ei / No
- 14. Miten koronatilanne on vaikuttanut liiketoimintaanne? / How has the Covid-19 situation effected your business?
  - Liikevaihto kasvanut / Increased revenue
  - Liikevaihto laskenut / Decreased revenue
  - Henkilöstömäärä lisääntynyt / The number of employees increased
  - Henkilöstömäärä vähentynyt / The number of employees decreased
  - Kansainvälinen toiminta vahvistunut / International operations strengthened
  - Kansainvälinen toiminta heikentynyt / International operations weakened
  - Rahoitus kasvanut/ Increased funding
  - Rahoituksen haku hidastunut / Search of funding slowed down

- Vaikuttanut muuten, miten? / Other, how?
- 15. Mikä on startup-yrityksenne liiketoimintavaihe? / In which maturity phase is your startup company in?
  - Research (tutkimus- tai käynnistysvaihe)
  - Pre-revenue (liiketoimintamallin validointi, ml. maksuttomia pilottiasiakkaita)
  - Revenue (liikevaihdon kasvu maksavien asiakkaiden avulla)
  - Expansion (skaalautuva ja kansainvälinen kasvu)
  - Pre-IPO (viimeinen kasvuvaihe ennen listautumista)
  - Buyout (yrityskauppa)

# 16. Millä markkina-alueilla startup-yrityksellänne on tällä hetkellä asiakkuuksia? / In which market areas your startup company has clients at the moment?

- Suomi / Finland
- Alankomaat / Netherlands
- Belgia / Belgium
- Espanja /Spain
- Etelä-Korea / South Korea
- Intia / India
- Iso-Britannia / Great Britain
- Japani / Japan
- Kiina /China
- Ranska / France
- Ruotsi / Sweden
- Saksa / Germany
- Singapore /Singapore
- Venäjä /Russia
- Yhdysvallat / United States
- Joku muu, mikä? / Other, which?

# 17. Miltä markkina-alueilta startup-yrityksenne pyrkii saamaan asiakkuuksia tulevaisuudessa? / In which marketing areas is your startup company aiming on increasing the amount of clients in the future?

- Suomi / Finland
- Alankomaat / Netherlands
- Belgia / Belgium
- Espanja / Spain
- Etelä-Korea / South Korea
- Intia / India
- Iso-Britannia / Great Britain
- Japani / Japan
- Kiina /China
- Ranska / France
- Ruotsi / Sweden
- Saksa / Germany
- Singapore / Singapore
- Venäjä / Russia
- Yhdysvallat / United States
- Joku muu, mikä? / Other, which?

- 18. Minkälaista apua tarvitsette startup-yrityksenne kansainvälistymiseen? / What kind of assistance your company needs for internationalization?
  - Asiakasosaaminen / Customer experience
  - Kansainväliset toimintaympäristöt (juridiikka) / Global business environments (by law)
  - Kansainvälistymisrahoitus / Funding for internationalization
  - Kumppaneiden hankinta / Finding partners
  - Markkinatietouden ja –dynamiikan lisääminen / Increase of market insights and dynamism
  - Markkinoihin tutustuminen / Getting to know the markets
  - Emme tarvitse apua kansainvälistymisessä / We don't need assistance in internationalization
  - Jotain muuta, mitä? / Something else, what?
- 19. Mitä muuta apua tarvitsette startup-yrityksenne liiketoiminnan kehittämiseen? (Valitse enintään kolme tärkeintä. Näyttöä vierittämällä saat esiin lisää vaihtoehtoja.) / What kind of assistance your startup company needs for business development? (Choose max. three most important options. More prions by scrolling down the screen.)
  - Kumppaniverkostojen rakentaminen / Building partnership networks
  - Liiketoimintamallin kehittäminen / Developing business models
  - Markkinointi / Marketing
  - Myyntiosaamisen kehittäminen / Developing sales knowledge
  - Rahoittajakontaktien löytäminen / Finding funding contacts
  - Rahoitussuunnitelmien tekeminen / Creating funding plans
  - Teknologinen osaaminen / Technology knowledge
  - Toimialakohtainen osaaminen / Specific knowledge on the field of operation
  - Tuotekehittäminen korkeakoulujen tai tutkimuslaitosten kanssa / R&D with universities and research institutions
  - Työvoiman rekrytointi / osaavan työvoiman löytäminen / Recruitment / finding talented workforce
  - Emme tarvitse apua liiketoiminnan kehittämiseen / We don't need any help on business development
  - Jotain muuta, mitä? / Something else, what?

20 Onko yrityksellänne rahoituskierros käynnissä tänä vuonna? / Does your company have a funding round this year?

- Kyllä
- Ei
- 21. Mikä on startup-yrityksenne rahoituskierroksen vaihe? / In which funding round phase is your startup company on?
  - Pre-Seed
  - Seed
  - Late seed
  - Round A
  - Round B
  - Round C
  - Round D+
- 21. Paljonko startup-yrityksenne on saanut pääomarahoitusta tähän mennessä? / How much capital funding your startup company has received so far?
  - 0-50 000 €
  - 50 000-100 000 €
  - 100 000-250 000 €
  - 250 000-1 000 000 €
  - 1 000 000 €+

- 22. Mistä julkisesta palvelusta sinulle on ollut eniten apua startup-yrityksenne kehittämisessä? Mainitse enintään kolme. / Which public service you have found the most helpful considering the development of your startup company? Please mention maximum three services.
  - (Avoin vastaus) / (Open reply)
- 23. Mikä julkinen palvelu on vastannut vähiten odotuksia ja miksi? / Which public agency has met your expectations the least? Why?
  - (Avoin vastaus) / (Open reply)
- 24. Mihin yrityksenne kehitystarpeeseen kaipaatte julkista palvelua? (jota ette ole löytäneet) / Is there any public agencies you have found important but hasn't been available?
  - (Avoin vastaus) / (Open reply)
- 25. Oletteko hyödyntäneet tai olisiko teillä tarvetta hyödyntää erilaisia TKI-testiympäristöjä (tutkimus-, kehittämis- ja innovaatio)? / Have you utilized or do you have any need to utilize different R&D&I test environment? (research, development and innovation)
  - Kyllä / Yes
  - Emme ole mutta harkitsemme hyödyntävämme / No, but we concider to

#### 26. Mitä TKI-testiympäristöjä olette hyödyntäneet?

- Drone-testialue Hiedanrannassa / Drone test area in Hiedanranta
- Hervannan smart City-alue / Hervanta Smart City area
- Innovaatioiden Hiedanranta -kehitysympäristö / Hiedanranta future city district
- Viinikan IoT-verkko / Viinikka IoT platform
- Vuoreksen puukaupunginosa / Vuores wood construction area
- Kolmenkulman ECO3
- Tarasten kiertotalousalue / Taraste circular economy area
- TAMK Sote Virtual Lab
- TUNI teollisuuden testialustat / TUNI industrial testbeds
- TUNI lääketiede- ja terveystutkimuksen palvelut ja tilat / TUNI MedTech and HealthTech testbeds
- Muu / Other

# 27. Miten arvioisitte käyttämienne testialustojen toimivuutta? / How would you evaluate the functionality of the test environments you have used?

• (Avoin vastaus) / (Open reply)

#### 28. Mitä TKI-testiympäristöjä teillä olisi tarvetta hyödyntää?

- Drone-testialue Hiedanrannassa / Drone test area in Hiedanranta
- Hervannan smart City-alue / Hervanta Smart City area
- Innovaatioiden Hiedanranta -kehitysympäristö / Hiedanranta future city district
- Viinikan IoT-verkko / Viinikka IoT platform
- Vuoreksen puukaupunginosa / Vuores wood construction area
- Kolmenkulman ECO3
- Tarasten kiertotalousalue / Taraste circular economy area
- Platform6 testikeittiö / Platform 6 test kitchen
- TAMK Sote Virtual Lab
- TUNI teollisuuden testialustat / TUNI industrial testbeds
- TUNI lääketiede- ja terveystutkimuksen palvelut ja tilat / TUNI
- Muu / Other

- 29. Onko startup-yrityksellänne patentteja tai patenttihakemuksia? / Does your startup company have any patents or applications for such?
  - Kyllä / Yes
  - Ei/No
- 30. Missä startup-yrityksellänne on patentteja tai patenttihakemuksia?/ Where does your startup company have patents or applications for such?
  - Suomessa / In Finland
  - Aasiassa / In Asia
  - Euroopassa / In Europe
  - Yhdysvalloissa / In the United States
  - Jossain muualla, missä? / Somewhere else, where?
- 31. Suunnitteleeko startup-yrityksenne muuttoa pois Pirkanmaalta seuraavan 12 kk aikana? / Is your startup company planning on moving away from Pirkanmaa during the following 12 months?
  - Kyllä / Yes
  - Ei/No
- 32. Kuinka tyytyväinen olette Pirkanmaahan startup-yrityksenne toimintaympäristönä? / How satisfied are you with Pirkanmaa as the business environment for your startup company?
  - (Asteikko 1-10) / (Scale 1-10)
- 33. Kuinka tärkeää yhteistyö Pirkanmaan alueen yritysten kanssa on startup-yrityksellenne? / How important is the cooperation with companies in Pirkanmaa region for your startup company?
  - (Asteikko 1-10) / (Scale 1-10)
- 34. Jäikö jotain sanomatta tai onko jotain, josta haluaisit vielä kertoa? / Is there something else you would like to add?
  - (Avoin vastaus) / (Open reply)
- 35. Mikä on sähköpostiosoitteesi? (Kirjoita sähköpostiosoitteesi, mikäli haluat R-kioskin jäätelölahjakortin) / What is your email address? (Share if you are willing to receive an ice cream coupon for R-kioski.)
  - (Avoin vastaus) / (Open reply)
- 36. Jos haluat lähitulevaisuudessa yhteydenoton Business Tampereelta, selvennäthän tähän minkälaista tukea tai apua meiltä kaipaat.
  - (Avoin vastaus)
- 37. Olen lukenut tietosuojaselosteet (linkit saatesähköpostissa) ja hyväksyn vastausteni käytön Business Tampereen tietosuojaselosteen käyttöehtojen mukaisesti. / I have read the terms of privacy protection (link in the accompanying letter) and accept the use of my replies by Business Tampere.
  - (Hyväksyn) / (I accept)

#### Appendix 2: Startup companies in the Tampere Region:

4seasons Telttasauna Oy

Absolute Dev Oy Adjective Animal Oy

Adopteri Oy AerOff Oy Agendium Oy Al Marketing Oy AJR Solutions Oy

Ampliconyx Oy AnniTech Oy Arctic Studios Oy Avalosys Oy

Battery Intelligence Oy

Bearlt Oy Bf+ Energia Oy

Biogenium Microsystems Oy

Biomendex Oy BioMensio Oy Bitemark Games Oy

Bithouse Oy Blokgarden oy Blue Screen 404 Oy

Bon Games Oy Boom Corp Oy Braincare Oy Brighterwave Oy Buildie Oy

Buildlink Oy

BusPay Oy Carbofex Oy

Carbofex O
Cation Oy
Cirous Oy

Citynomadi Group Oy Cleaner Future Oy Cognita Corporis Oy Collateral Solutions Oy

ColloidTek Oy Combinostics Oy Cometa Solutions Oy CoreSeer Company Oy

Crosshill Oy Culinar Oy CySec Ice Wall Oy

Deep Sensing Algorithms Ltd Oy

Delta Cygni Labs Oy

Dexmen Oy

Digi Toilet Systems Oy

Diory Oy Dogdevelop Oy Domelius Oy Dreamloop Games Oy

Eduhost Oy
Edunation Oy
Eeedo Oy
eligo.live Oy
eSend Finland Oy
eSolutions Finland Oy
EVA Solutions Group Oy
Evergreen Farm Oy

Exafore Oy
FabricAl Oy
Fibrobotics Oy
Filmloop Oy
Finnora Oy
Fitty Murmel Oy
FitWood Oy
Fluivia Oy
Forciot Oy
Forecon Oy
Friendly Fire Oy

Genevia Technologies Oy

Gnomecragt Oy
Go SportY Oy
Good Guys Oy
Greener Grass Oy
Greenseq oy
Grundium Oy

Hangover Games Oy

Harmony Blockchain Solutions Oy

Healthfactory Oy Heimo Films Oy Helmee Imaging Oy Helmi Games Oy Herkkä Snacks Oy Hilla Entertainment Oy Hologram Monster Oy

Hyyra Oy Hölkkä SBS Oy Höpöhöpö Oy IKPN Oy Injeq Oy iTechRe Oy ITfox Oy Jobile Oy Kahea Oy

Huoleti Oy

Keho Interactive Oy KeloTwin Oy Kemion Oy

Kidtek Oy

Kjelp Oy Kokoustaja Oy Kopla Games Oy Kuulea Energia Oy Lainappi Oy LAKKA Health Oy Lean Entries Oy

Lenio Oy LessonApp Oy LivingSkills Oy Loikka Design Oy Loopshore Oy Lumoin Oy

Material Maintenance MaMa Oy

Medified Solutions Oy

Meluta Oy Memocate Oy

Midnight Forge Oy (Virtual Dawn)

Minda Labs Oy Mindfindr Oy Minilabz Oy Missing-Link Oy

Mohavi Creative Company Oy MORE Automation Oy

MOST Digital Oy Netbox Finland Oy Neuro Event Labs Oy

Newspek Oy

Nighthouse Games Oy

NomiCam Oy Nonono.lo Oy

Nordic Market Research Oy

Olfactomics Oy

Omnichannel Retail Services Oy

OOMZEE Oy
Osumia Games Oy
Outloud Oy
Ozonium Oy
padelOne Fam Oy
Partones Oy

Picophotonics Oy Plasmonics Oy

Poikain Parhaat Oy Polar Night Energy Oy

Polar Partners Oy Prenta Oy ProChoice Oy

Productive Software Solutions Oy

ProTieto FI Oy Prönö Enterprises Oy Pure Recycle Oy

Qentinel Quality Intelligence Oy

QualityDesk Oy Radarctic OY Radientum Oy Random Potion Oy ReceiptHero Oy

Red Stage Entertainment Oy

Reflekron Oy Revonte Oy

Rinki Entertainment Oy Ronsam Digital Oy Ruska Naturalia Oy Saunatemppeli Oy Scouter Mobility Oy SecondTie Oy Sensotrend Oy

Skydome Entertainment Oy

Smoothteam Oy

Sky High VR Oy

Solar Fire Concentration Oy

Songpool Oy Sport Venue Oy Sportyfly Oy StemSight Oy StepOne Tech Oy Suomen Koirapeli Oy

Suomen kuntoutusvälineet Oy

Tammerfast Oy Tekno-Ants Oy Think Tone Oy Toriverkosto Oy Trackinno Oy Trainesense Oy Trelic Oy

Trelic Oy
Treon Oy
Trialwell Oy
Trinno Oy
Tussitaikurit Oy
Vaisto Solutions Oy
Valaa Technologies Oy

Valkokettu Oy

Watchmydc Analytics Oy

Vektorio Oy Veldo Oy

Wellness Warehouse Engine Oy

Vertics Oy Vexlum Oy Vigofere Oy Visumo Oy Witview Oy Voconaut Oy XMLdation Oy

Yepzon Oy

Zealbots Oy