STARTUP ESTONIA

ESTAAS Estonia as a Service



Estonia as a Service

STARTUP[®] ESTONIA

Contents

Abstract	
Introduction	4
A Short History of Estonian startup ecosystem and Activities until ESTaas Project	
Early movers	
Government's move - launch of Startup Estonia	5
Estonia - a small Unicornia	
Your guide to the lively startup community	
Why the need for ESTaas?	
Research aim and objectives	
Research Team	
Research done prior to ESTaas project to capture the Estonian startup ecosystem	
European Digital City Index (2016 data, 2017 release)	
Startup Genome	
Global Entrepreneurship Index (GEDI) 2018	
The Digital Transformation Scoreboard 2017	
European Startup Monitor (2016)	
Limitations of existing studies	
Research Methodology and Procedure	
Choice and Selection of Research Samples	
Focus Groups and Interviews	
Focus Groups	
Individual Interviews	
Survey	
Survey procedure and distribution	
Results	
Survey Descriptive Findings	
Limitations.	
Multiple Choice and Short Answer Sections	
Those outside Estonia	
Those inside Estonia	
Foreigners Moving to Estonia	
Challenges for Estonian Startups	
A software bias?	
Evaluations of the Culture of the Estonian Startup Ecosystem	
Discussion of Key Themes	
Key pain points for Startup Visa Holders	
Community involvement and outlook	
Awareness and Understanding of Startup Estonia	
Estonian Diaspora	
Reaching prospective Startup Visa applicants	
Investing in Estonia and the Estonian Investment Landscape	
Leading the way to the Estonia's unique value proposition?	
Summary - Conclusion	

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Abstract

In February and March of 2018, a research project was undertaken by Startup Estonia and outside collaborator Natalie Novick to identify a number of the strengths and weaknesses of the existing Estonian startup landscape. This work was conducted with an aim of highlighting Estonia's unique value offering for early stage entrepreneurs. The project sought to take a broad view of the current startup ecosystem and provide an outlet for Estonian and non-Estonians active in the startup ecosystem to share their positive experiences and difficulties in the existing ecosystem. This inquiry aimed to field a broad array of responses from many different types of actors participating in the ecosystem, from entrepreneurs, startup team members, prospective international entrepreneurs interested in moving to Estonia, and those already present in Estonia who might not be currently active in the ecosystem.

Introduction

A SHORT HISTORY OF ESTONIAN STARTUP ECOSYSTEM AND ACTIVITIES UNTIL ESTAAS PROJECT.

Early movers

Skype, now the world's largest P2P communications platform, is often considered the trigger of Estonia's emerging startup ecosystem. The platform was launched in 2003 and its acquisition by eBay for \$2.6 billion in 2005 put the Baltic state on the global map of innovation and fueled it with financial resources and startup experience. First capital came to the market by Ambient Sound Investments (ASI), which was established in 2003 as an equal partnership by four founding engineers at Skype. At the end of 2005 ASI sold its Skype shares to eBay and is been operating as a private investment vehicle ever since.

By 2006, the government had understood the need for supporting the emerging sector and created the public VC fund the Estonian Development Fund to kickstart the development of Estonian venture capital market. The fund started matching private investors investments up to 50% and did this until 2015, when it shifted to a fund-of-funds model through it's investment arm Smartcap.

2007 was the beginning of Ajujaht, the largest competition of business ideas in Estonia, initiated by Enterprise Estonia. It has been the birthplace of Taxify, Click & Grow and Bikeep. Garage48 hackathons, the 48 hour startup hackathon series, started in 2010. 100+ hackathons and 20+ countries later they are a central player locally as well as getting the word around about Estonian startup ecosystem.

2011 Garage48 also opened the first startup co-working space in Estonia, Garage48 HUB, which is now transformed to Lift99 which is considered to be the flagship of the startup culture in Tallinn. 2012 brought us Startup Wiseguys, now the leading B2B accelerator for early stage startups in Europe. Tallinn Science park Tehnopol was an early pioneer providing startup support services already 2003, it officially opened its Startup Incubator in 2012, together with the Prototron startup fund. Prototron provides a non-equity grant to startup to build their first prototype and 6+ months of business incubation program by Tehnopol Startup Incubator.

Then followed other accelerators and incubators like Gamefounders (2012) - the first of it's kind that time in Europe focusing on gaming; BuildIT (2014) to give a boost to all startups working on a hardware product; Digix (2015) for digital creative media startups, Elevator (2015), VUNK Labs (2015), Climate Launchpad and Climate KIC-Accelerator (2015) to make new cleantech product and service ideas reach investor readiness.

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Also important part of our startup ecosystem is the creation of Estonian Business Angels Network, an umbrella organization for business angels and business angel groups seeking investment opportunities in Estonia and its neighbouring regions. EstBAN has 125+ members (by mid 2018) and its members have made 700+ angel investments. In 2018 we count around 70 organisations directly supporting startups in Estonia during every step of their way from an idea to international rockstars.

Government's move - launch of Startup Estonia

Startups have been on a high level of political agenda in Estonia since 2011, when the very first pilot program for Startup Estonia was agreed upon. Whereas there were strong players with top-notch services at the disposal of startups out there already, Startup Estonia was initiated to take a holistic view on the development of the startup ecosystem and jump in where the market could use some help. Initially, 2012-2014 the program was under Enterprise Estonia; 2014-2016 was the 2nd pilot at Estonian Development Fund and since 2016 at Fund KredEx.

Some of the early activities included study tours to Silicon Valley for Estonian startups, bringing in foreign mentors to share their experiences and network, supporting hackathons and access to other programs for startups, kickstarting the creation of accelerator programs etc. The 1st Estonian startup accelerator whose launch was supported by the government was Gamefounders, followed by Startup Wiseguys and BuildIT.

Next to activities providing a universally good environment for new ideas to pop and startups to grow, irrelevant of the industry they are in, in 2014 Startup Estonia came part of Smart Specialization Strategy for Estonia. Meaning, there are certain verticals where more potential is seen to be internationally competitive than others. So first, 2014-2015 Startup Estonia included activities to build the clean-tech startup ecosystem - the program was spinned out to Cleantech Forest end of 2015. Since 2016 the sectoral focus is on building a similar ecosystem around cyber security domain.

During early years there have been training programs for 1st time startup founders, skill trainings (sales, marketing, product management) and various events Startup Estonia has supported (financially and to organize). 2016 the Estonian startup database's 1st edition was created, a re-do to version 2.0 followed a year later. Startup Estonia has been keeping an eye on how Estonian startups are developing, introducing them on global conferences (e.g. Websummit, Slush), to investors and potential partners by hosting delegations in Estonia and taking the local ecosystem on study-tours to other countries.

One of the focuses for Startup Estonia has always been to be the bridge between lawmakers and startups. There have been various topics throughout the years that have been lobbied, one of the recent and most important ones is giving easy access for foreign founders to build their startup in Estonia. 2017 January the Estonian Startup Visa scheme came into effect, which Startup Estonia team had been involved with for a year and a half.

Estonia - a small Unicornia

Currently there are roughly 550 Estonian startups active, some 90% of them in very early stages. Whereas lots of new startups are formed yearly, bigger are getting bigger and therefore the sector is also maturing. The top 10 largest ones account for more than a half of the 4500 jobs created by all startup companies. Every year the employment grows by roughly a third and is expected to pick up the pace in the upcoming few years in relation to the growth of startup investments.

Over a 12-year tracking-period the investments have shown a steady growth, but in the last few years the pace has picked up tremendously. When 2014-2015 Estonian startups raised +50% and 2016 showed steady growth surpassing the 100M EUR mark, then the next year this number more than doubled. When this was largely due to a huge round raised by Transferwise, the year later a variety of companies is behind the big number. By mid 2018 the last years ever highest score is already close and the year is expected to end somewhere in the 300-350M EUR ballpark.

To date there have been 24 exits for Estonian startups. Although the size of those is undisclosed, at least 3 of them are supposed to have been more than 50M EUR each. Estonia has produced 4 unicorn companies - Skype, Playtech, Transferwise and latest addition Taxify in May 2018. Where else you will find so many unicorns on such a small scales as Estonia is.



¹ "Funding, Failures & Exits of Estonian Tech Startups 2006-2018" community based crowdsourced database



Your guide to the lively startup community

Estonian startup community has been described as vibrant, especially considering, that Estonia has a population of 1.3 million people. Estonia annually hosts 2 major startup conferences - Latitude59 in May and sTARTUp Day in December/January. With international events like the the biggest robotics festival on the planet Robotex, product, design & front-end conference Refresh and countless 48-hour hackathons by Garage48 throughout the year.

Startup Estonia curates an extensive calendar of Estonian Startup events and we are seeing quite a massive growth in the number of startup events - in 2016 we listed 388 startup-related events in Estonia and in 2017 the number was 584. The busiest months for events are proved to be November, when we are normally hosting Tallinn Startup Week and May, with lot of side events for Latitude59. Behind these numerous events are local meetup groups and other communities.

Estonian Meetup Groups & Past Events

▷ OpenCoffee Club Tartu → UX Tartu meetup ✤ Cloudaggeddon ✤ Google Developers Club Tartu → TechSisters ✤ Storytek meetups → Fuckup Nights Digigirls → CTO talks ✤ Mobi Lab Design Friday Sales LAb → Your Design Talks Networking Night Tehnopol ✤ Recruitment Thursday Creative Mornings → VUNK talks → Node.js meetup -> Lets speak about cyber security Cloudaggeddon → Mobile Summit → K-space ➡ Startup Grind Python CodeClub → Foreign Founders Meetups

Table 1. Estonian Startup events by month

Month	2016	2017	2018
January	34	36	35
February	35	41	44
March	39	57	47
April	40	71	59
May	39	57	65
June	21	36	40
July	9	13	
August	12	20	
September	36	74	
October	40	60	
November	56	79	
December	27	30	

Why the need for ESTAAS?

In late 2017 it was determined that a bespoke research solution for the Estonian startup ecosystem would be necessary to measure the community's current impact and to provide a benchmark for which to gauge future interventions. The research carried out prior to ESTaas project had focused on either on standardized benchmarks for international ecosystems on a higher level of abstraction, or on the other hand internal evaluation from the local point of view. Whereas both of them give some good input, they all have restrictions as mentioned above.

As the Estonian startup ecosystem and startups mature, the need for talent and connections has become one of the most crucial part the community has to gater. That is why the ESTaas project was brought to life. On one hand to incentivize more smart people to come to Estonia to build their company (or contribute to the successes of local existing ones as an employee) and to understand the challenges they face during their adaptation to the Estonian startup environment.

Late 2017-early 2018, as a prelude to ESTaas project, there were a number of interviews with various stakeholders in Estonia's economic landscape done by Startup Estonia and Ministry of Economic Affairs and Communication. The aim of this research was to map the plans of each organization to understand what they will be focusing on in the upcoming years and where there would be possibilities for cooperation. Through these conversations, a number of bright points and challenges were identified in an effort to connect the Estonian startup ecosystem to the country's larger innovation infrastructure. The ESTaas Project builds upon these foundational observations and has generated findings from a greater array of local stakeholders to go in depth to understand how to make Estonia make work better for international startup founders.



Research aim and objectives

The ESTaas project was designed to address several specific objectives. First, the project sought to generate some foundational observations and findings that could be used to benchmark the progress of the Estonian startup ecosystem. These findings help provide a starting point for measuring the impact of future Startup Estonia initiatives and ecosystem interventions. Secondly, the project sought to generate feedback from the wider community on how Startup Estonia can better focus its activities and serve the community. As the Estonian startup community currently lacks a central association or organization, this effort allowed the Startup Estonia team to hear from a broad array of stakeholders, rather from just than the most visible. This represented a good faith effort on behalf of the Startup Estonia team to survey the startup landscape as most comprehensively as possible.

Research team

Natalie Novick

Research Director, European Startup Initiative

Natalie is an ethnographer and social scientist with expertise in startup ecosystem development, community formation and cross border migration. She was invited to join the project to bring an outside perspective to understanding the Estonian startup ecosystem, and to develop the design of the research inquiry. She has an extensive background working with both public and private organizations on research and program development initiatives.

Rivo Riistop

Startup sector strategist, Startup Estonia

On one hand, Rivo is working on creating a solid narrative for Estonia to attract foreign talent and develop its' caas business model – country as a service value prop around that. On the other, he makes sure there are no roadblocks limiting the growth of Estonian startups e.g. acquiring talent, money etc.

Sander Sillavee

Head of social media, Startup Estonia

Sander is a wizard with words. He makes sure news about the achievements of our awesome startups reach global audiences. Additionally, he is the head organizer of Startup Week Tallinn, community-driven week full of startup events.

Research done prior to ESTAAS project to capture the Estonian startup ecosystem

Estonian startup ecosystem has been benchmarked against approximately 70 other locations in the Global Startup Ecosystem Survey (today Startup Genome), respectively in 2016 and 2017. The entrepreneurial mindset and ambitions in a wider sense than just startup industry have been annually surveyed with Global Entrepreneurship Monitor (GEM) since 2011. 2012-2013 also a deep dive with Global Entrepreneurship Development Index (GEDI) was accomplished in Estonia. Startup Estonia has been giving input to European Digital City Index and Startup Manifesto policy tracker.

There have also been some internal evaluations carried out by fellow startup community members. The latest one of them is from the beginning of 2017 "Overview of Estonian startup landscape" by long-time expertise in the Estonian startup field, Elise Sass and Mari-Liis Lind, initiated by Startup Estonia.

European digital city index (2016 data, 2017 release)

The European Digital City Index evaluates European cities according to an array of criteria arranged in several themes. The index is developed with little respect to weighting or arrangement of variables, so it is important that this index can only give limited insight into a manufactured value of what a startup ecosystem is comprised of.

Tallinn is the only Estonian city that is included in the EDCi, and in 2017, it was rated 18th out of 28 cities. The index utilizes composite scores of multiple variables in several categories-- among them, skills, digital infrastructure, market, mentoring, non-digital infrastructure, lifestyle and culture.

Theme	Measurement	Critiques
Access to Capital	Early Stage Funding, Late-Stage Funding, Business angels funding, crowdfunding	Crowdfunding not useful to everyone, Quantity of funding (#) variable depending on # in ecosystem, per capita might be better
Business Environment	Openness of data, cost of office space, ease of doing business	Ease of doing business may be different for digital products, cost may be different in areas of startup concentration
Digital infrastructure	Fibre internet, mobile internet speed, cost of broadband, internet speed	Important consideration, cost is variable
Entrepreneurial Culture	Willingness to take on risk, multicultural diversity, online collaboration, new-business density, perception of entrepreneurs, trust, ecosystem engagement, history of unicorns	Attitudes toward risk and uncertainty are very different in the startup culture as compared to the culture at large.
Lifestyle	Standard of living, culture and recreation	
Market	Growth in local online sales, mobile market size, digital market size, local online sales	Local and domestic market is only important for some kinds of goods
Mentoring	Networking events, access to accelerators, early stage assistance	Just because you are in the same city as an accelerator does not mean that it is necessarily more easy for you to access, or more available to the entrepreneur, varying quality of accelerators
Non-digital infrastructure	Train connectivity, airport connectivity, commute	
Skills	Labour costs, access to graduates, business training, ICT employees, Support employees,	Availability to bring new talent to city important when small teams require the "right" person

Table 2. Themes of the European Digital City Index

When compared to over 60 European cities, composite scores for Tallinn's Business Climate and Entrepreneurial Culture are found to be the city's most competitive indicators. Alternatively, "knowledge spillovers", "lifestyle" and "market", are shown to be the city's weakest categories.

Interestingly, the EDCi only ranks Tallinn 17th in Europe when it comes to digital infrastructure. This poor value for digital infrastructure indicates some of the challenges that are associated with these indices. Indices have value when they utilize a common set of comparison variables that can be measured reliably across your sample selection. In order to build a comparative dataset, you must utilize measures that are available in all cases. In the EDCi, digital infrastructure is measured in terms of hardware, broadband capability and internet speed. This unfortunately masks some of Estonia's key innovations in digital infrastructure, e-governances and digital services. As these innovations have no comparison in other European cities, the index is unable to include such criteria, masking Estonia's true value when it comes to digital infrastructure.

Startup Genome

Startup Genome is a research organization that produces one of the most well-known and cited startup ecosystem indices in the world. Startup Genome measures the vibrancy of startup ecosystems through the world's largest ecosystem surveys. Combined with their "lifecycle model", and bespoke tailored consulting solutions, Startup Genome works with startup ecosystems to help them accelerate and build their entrepreneurial climates. As a private company relying on direct consulting as a considerable portion of their business model, the reliability of Startup Genome's report cannot be entirely known. In the past, Startup Genome conducted a ranking of startup ecosystems. This changed in 2018, when they changed their reporting to reflect only "deep dives" on specific ecosystems that partnered with their company. For 2018 Estonia didn't renew its membership and, as a result, Estonia is not mentioned in the 2018 ecosystem report.

Earlier reports indicate that Estonian startup ecosystem is in the early, activization stage, largely due to the number of startups (1000 needed to reach the next stage "Globalization"). Access to funding, immigration time & acceptance rate, governments attitude towards startups, global product focus and connectedness of Estonian founders with their peers in other continents are seen as strong-points for Estonia. On the flip side of the coin, very limited talent pool, low number of big exits, median seed investment size and the share of employees' experience working for a high growth company have room for improvement.

Global Entrepreneurship Index (GEDI) 2018

The Global Entrepreneurship Index (GEDI) is a worldwide composite index created using both survey and infrastructure data. It conducts an analysis of entrepreneurial attitudes, abilities and aspirations of the local population and then weighs these against a number of prevailing social and economic 'infrastructure' factors. These infrastructure measures include characteristics such as broadband connectivity and the transport links to external markets. These variables are then combined into 14 'pillars' which GEDI uses to measure the health of the regional ecosystem. Estonia ranks an impressive 23 of 137 globally on the 2018 edition of the Global Entrepreneurship Index.

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The Digital Transformation Scoreboard 2017

The Digital Transformation Scoreboard is an EU initiative aiming to capture the adoption of digital technologies in the European Union, and how they may figure in the development of high technology companies. The integration index analyzes the enabling conditions of member states towards developing digital technologies, by analyzing the outputs in terms of changes in ICT startups and performance in technology integration. The scoreboard is compiled via a survey of companies in the automotive, mechanical engineering, healthcare and pharmaceutical sectors across the 28 EU Member States. The survey captures the most recent uptake of digital technologies. Both products were released in 2017 as part of the EU's Digital Transformation Scoreboard Initiative.



The Enabler's Index, operates on the assumption that "infrastructure, access to finance, and the demand and supply of skills are the most important factors driving digital transformation". Here, we see that Estonia ranks 14th in the index, slightly below the European average.

The EU Digital Technology Integration Index, by contrast ranks how changes in a country's digital infrastructure have resulted in outcomes in the country's business environment. Here, we see Estonia fares much worse, falling much below the European average and ranking only in 24th position. What this index reflects is the country's use and ability to capitalize on the effects of its digital infrastructure. In this case, we see that Estonia has considerable room to grow when it comes to further utilizing its digital capacity in the creation of high growth companies.

European Startup Monitor

The European Startup Monitor is a cross-EU startup survey initiated in 2014 by the European Commission. The second edition was released in 2016, and a third edition will be released in 2018. The European Startup Monitor aims to evaluate Europe's startup ecosystems alongside a common academic framework. To do this, they utilize both survey data and infrastructure data. In 2016, Estonia did not generate a robust enough sample of participants to be included in the European Startup Monitor's final report.



Limitations of existing studies

While each of these existing studies can be used to help provide a picture into how enabling Estonia is for digital and startup companies, comparison rankings can only provide a limited view. It is important to consider their limitations, most importantly when it comes to data reliability and consistency across cases. In creating an index that allows cases to be compared reliably runs the risk of constraining our understanding on key themes. Rich, varied experiences are collapsed into simple numbers. Descriptive data, which may tip the balance on some indicators, as seen in Estonia's poor result for digital infrastructure in the EDCi, cannot be measured or reflected properly.

Other challenges abound when utilizing comparison indices. For comparison purposes, rich data points will need to be harmonized and normalized to fit a standardized scale. Others will be compiled into composites that may compound distortions or errors in the data. With several of these studies, including the EDCi, and Startup Genome that utilize composites, weighting structures are ambiguous and undetermined.

Importantly, academic work on the development of a vibrant startup and entrepreneurial climate currently provides few theoretical bases for measuring this changing field. Indices that rely on strong assumptions concerning how variables relate to one another can only hint at suggestion, rather than argue for strong conclusions.

Startup ecosystems are being remade and develop continually. It is with this perspective that a case study approach would provide the greatest opportunity to benchmark Estonia's ecosystem at its current state, and would provide an opportunity to revisit at a later stage. These insights can be used for valuable comparison over time, to further understand how the ecosystem develops and grows.

Research methodology and procedures

Upon identifying the project's research aims, the project moved forward in two phases. First, by utilizing qualitative, exploratory interviews and focus groups with specific stakeholders, and secondly, through a broader internet-based survey. The purpose of the research is exploratory rather than academic — to identify some of the unique values of Estonia's startup ecosystem through the eyes of its stakeholders, and to identify some of the key pain points to be addressed moving forward. Similarly, it is an opportunity to help create greater outreach and understanding between Startup Estonia and its startup ecosystem. Despite continual, existing ties between Startup Estonia and the local startup ecosystem, rarely has the program had the opportunity to assess the community in a strategic way.

The choice of these two phases was strategic. Firstly, the interviews and focus groups allowed the opportunity to reach specific stakeholders in a personal way and allow for the participants to share comprehensive feedback and raise specific concerns. Secondly, the initial interviews helped to highlight specific areas of the ecosystem to be probed further in the latter survey.

After the culmination of the initial focus groups and interviews, a survey was designed to further probe some of the main themes and concepts brought up in the exploratory qualitative work. The survey sought to capture responses from a broader array of stakeholders in the Estonian startup ecosystem, and to gather a greater selection of feedback on the key research motivations.

Choice and selection of research samples

The selection procedure has sought to reach a number of populations Startup Estonia has identified as key constituencies for its work. Startup communities depend on their ability to foster and support new generations of entrepreneurs. This is why it is necessary to hear from those at the earliest stages of development, especially those who may be found on the margins, those who may be prospective entrepreneurs, or "wantrepreneurs" and those that are eager to become involved in the startup scene but are not participating already. While it is difficult to capture a some of these populations through convenience sampling, as they may be unknown to the research team, an effort was made to ensure these groups were reached through the online survey procedure.

Thanks to the Startup Visa program launched January 2017, startup teams from all over the world have been granted equally good terms to enter Estonia. With very little marketing effort, more than 50 nationalities have already used this scheme. Though, there are some countries where the interest has been especially strong and secondly, the quality of teams way above average.

Although the Startup Visa scheme is open for everyone, there are some markets that Startup Estonia is heavily focusing it's marketing activities on. First, Europe has to be at least one of their core markets - Estonia has a lot to offer for teams wanting to scale to the rest of EU. e.g. Asian startup which is focused on local market - Estonia would not be the first choice to manage that expansion from.

Secondly, countries where there is high level of technical talent available, but their local business environment isn't supporting their ambitions well enough. All this has narrowed down the focus to former Soviet Union countries - Ukraine, Belarus, Uzbekistan, Moldova, Serbia among others. On top of those also Turkey, where the cooperation on government level is strong and the talent pool is eager to have EU-market access. Political ties are getting stronger with some countries further out in Asia, which has raised also South-Korea and Japan above the radar for Estonian startups and Startup Estonia.



Focus groups and interviews

The first phase of the research project utilized a combination of both focus groups and in-depth interviews with selected stakeholders. Each of these used a semi-structured interview format, with a specific set of questions tailored for each participant/participant group. These interviews proceeded in a conversational style, generally with one member of the research team leading the discussion, and the remaining members taking notes and asking follow-up questions.³

This informal structure allowed participants to explain at length or discuss personal topics of interest. This freedom created significant opportunities for issue discovery, helping to highlight concerns that were previously hidden to the research team to be probed in further depth. These interviews were held either in person, or via Skype, based on the availability of the participants.

Focus groups

Four focus groups were held in Tallinn in February 2018. These groups reached Estonian investors, Foreign Founders in Estonia and members of both Lift99 and SpringHUB coworking spaces (altogether some 40 people). Focus groups were chosen to reach a broad spectrum of participants, and to give them the opportunity to share with one another in a group setting. The focus groups conducted at the two co-working settings, Lift99 and SpringHUB were conducted informally, over a lunch (SpringHUB) and a dessert (Lift99). These informal focus groups allowed the research team to reach participants that may have been unknown by the research team.

Individual interviews

Individual interviews were held in person in Tallinn, Tartu, Riga and remotely over Skype between February and April of 2018. Individual interviews were targeted a large variety of stakeholders, among them Estonian founders, International founders in Estonia, Investors, Educational partners, Community Partners and ecosystem builders (altogether 18 people). Participants for the individual interviews were generally recruited over email inquiry or in person.

Survey

The survey was designed in an effort to build upon the findings uncovered in the qualitative analysis. The survey was created specifically to address five main audiences:

- 1. Estonian Entrepreneurs: Identify what aspects of the current ecosystem are working and where current challenges exist.
- 2. International Founders in Estonia: Discover what encouraged international founders to come to Estonia, where they have experienced challenges, and what they have gained upon arriving in Estonia.
- **3.** International Entrepreneurs abroad interested in Estonia: Identify what potential future Estonian entrepreneurs are looking for when they choose a startup location, and why Estonia may stand out.
- **4. Estonian investors, startup team members and local startup community:** Identify level of ecosystem involvement, perceptions of ecosystem quality and desired areas of further investment.
- 5. Estonians interested in the ecosystem that are not currently active: Identify current barriers preventing greater involvement in the startup ecosystem.

The 2018 Startup Estonia survey was developed over several weeks in response to both the research aims and the feedback generated from the focus groups and one on one interviews.

³ Please see Appendix for selected interview and survey questions

Survey procedure and distribution

For distribution we primarily used Startup Estonia's social media platforms and mailing lists. These were then augmented by targeted ads on social media. The survey was sent out to 4 mailing lists totaling close to 3000 recipients, 4 Facebook groups (slightly less than 1000 members), 4 Facebook ad-campaigns and simultaneously used other channels like Instagram and Twitter to gain survey responses.

1. Email lists

The survey was initially sent out to our various mailing lists. The response rate varied considerably between different mailing lists. In response to our initial email, we saw open rates from 38.9% to 60.9% and click through rates from 6.6% to 26.3%. Startup Estonia is a governmental initiative and according to data from Mailchimp, the industry average of the governmental mailing lists is 26.3% for open rate and 3.62% for CTR. ⁴

2. Social media

2.1. Facebook

2.1.1. Facebook Groups

- 1. #EstonianMafia @ March 15 453 members
- 2. sTARTUp Hub @ March 15 86 members, seen by 41, 1 like
- 3. Spring Hub members @ March 15 180 members, seen by 74
- 4. #EstonianMafia's back office 108 members. March 6 seen by 66, 5 likes; March 15 seen by 57, 2 likes.
- 5. SPARK HUB @ March 15 148 members, seen by 39, 1 like

2.1.2. Facebook ads

After receiving 235 responses by 14th of March we wanted to give the survey a boost. In addition to the organic distribution on Facebook, from 15th to 23th of March we ran 4 different campaigns to distribute the survey. As we wanted to keep the responses relevant, we targeted audiences relevant for us:

- 1. Website Custom Audience: We ran the campaign to everyone who have visited our website www.startupestonia.ee
- **2.** Fans of Startup Estonia: We ran the campaign to 10 432 fans (number of fans on 15th of March) of Startup Estonia both in Estonia and worldwide.
- **3.** Lookalikes of Website Custom Audience and Fans: We ran the campaign to people who are similar to our fans and people who have visited our website.
- **4.** Everyone who engaged with our page: We targeted the campaign to everyone who has engaged with the content on our Facebook page.
- 5. Tech early adopters + Startup interest in Estonia: We ran the campaign to people who are technology early adopters and are interested in startup related topics.
- 6. Newsletter list: We ran the campaign to people in out newsletter list that are based in Estonia.

As the average CPM in Facebook is increasing rapidly, even as high as 171% YoY according to AdStage⁵, its is important to keep CTR as high as possible. For these campaigns, we saw the biggest CTR (4,27%) with our Website Custom Audience - people who have visited our website.

This was followed by our Fans (2.18%). The lowest CTR's came from audience marked as people who are similar to our Fans and people who have visited our website (0.7%) and everyone who has engaged with the content on our Facebook page (0.46%). With everything combined, the average CTR for the campaigns was 1.72%. According to various sources the total average CTR of Facebook ads varies from 0.9%⁶ to 1.76%⁷.

⁴ Email Marketing Benchmarks - MailChimp. <u>https://mailchimp.com/resources/research/email-marketing-benchmarks/</u> ⁵ Facebook CPMs Increase 171% In 2017. The AdStage Blog.<u>https://blog.adstage.io/2017/09/18/facebook-cpms-increase-2017/</u>

2.2 Other social media

We ran the campaigns simultaneously with the ones on Facebook through Startup Estonia's Instagram page (1960 followers at that time). On Twitter, we tweeted out the information of the survey 4 times, gaining 39 link clicks leading to the survey in total. Additionally, we posted the survey to Startup Estonia's 612 followers, gaining merely 2 clicks to the survey.

2.3 What could be improved

Even though the open rates and click-through rates of distributing the survey to our email lists were not bad, the completion rate of the survey could be improved time by sending out 1-2 follow-up emails. On the Facebook ads, we could have focused more on the audiences that prove to have higher CTRs.

Online distribution processes for surveys vary considerably. As this was the first attempt, a number of insights were gained. Ultimately however, the lack of email reminders to the initial mailing list severely compromised our survey response rate. As a result, our survey has very limited data for some sectors of our survey. Low response rates have the potential for increasing bias in our data, and for potentially skewing results.⁸ Product surveys, generally utilize three communication points. First, initial email, a follow-up at the midpoint of the survey distribution, and a final reminder before the close of the survey.

Larger, academic and substantive surveys often utilize considerably more reminders, up to six or seven during the entire survey open period, for those that have not completed the survey. In this instance, it was decided that repeated reminders to complete the survey would potentially compromise the utility of Startup Estonia's mailing list. As the Startup Estonia mailing list is the primary communication mode between the Startup Estonia team and the Estonian startup community, any degradation of the value of this mailing list was to be avoided.

⁶ Facebook Ad Benchmarks for YOUR Industry [New Data] | WordStream

https://www.wordstream.com/blog/ws/2017/02/28/facebook-advertising-benchmarks 7 Facebook Advertising Benchmarks for 2Q17 - MarketingProfs Д

https://www.marketingprofs.com/charts/2017/32706/facebook-advertising-benchmarks-for-2q17

⁸Dillman, D. A. (2007) Mail and Internet Surveys: The tailored design method (2nd ed.). New Jersey: John Wiley & Sons, Inc.

Results

Survey descriptive findings

Responses for each category of participant

During the survey period, we garnered 488 total responses. 54% of survey takers were currently outside Estonia, while 46% inside Estonia. The large number of respondents from outside Estonia were driven to the survey largely through Facebook ads, rather than through the Startup Estonia mailing list.

142 individuals in our sample were non-Estonian founders considering a move to Estonia. This population is a key focus group for the research, as a key identified goal of the survey was to determine the motivations of prospective Startup visa applicants.

The low number of survey participants from inside Estonia is a point of concern. The poor penetration of respondents from the Estonian startup community can be attributed to the survey distribution as well as the fact the survey primary aim was to capture the foreign founder's perspectives.

Gender: 370 male, 109 female, 9 undetermined

Table 3. Distribution of respondents according to the age of the respondent:

Age group	No of responses	Share from all respondents
26-35 years	225	46.1%
36-50 years	150	30.7%
18-25 years	79	16.2%
51 years and older	31	6.4%
Less than 18 years old	3	0.6%

Table 4. Distribution of respondents according to their education level

Highest education level	No of responses	Share from all respondents
MA, MBA, PhD or other professional degree	181	37.2%
University graduate	176	36.2%
Attended unviersity, did not graduate	83	17.1%



Limitations

Our survey respondents were nearly evenly split between those living in Estonia (46%), and those living outside (53%). Due to the many different categories of respondents we wanted to capture, our response rate for within these categories was quite limited.

Our highest amount of responses was from non-Estonian founders looking to move to Estonia, and those interested in Estonia more generally.

For those living in Estonia already, our highest amount of responses came from those that are interested in the startup scene, but not currently involved (33%). Despite considerable outreach with foreign founders already living in Estonia, only 28 responded to the survey (12% of the sample). Since the background of those that answered could be linked in most cases to the Startup Visa program, then close to 1/3 of founders in Estonia on startup visa answered to the questionnaire.

Multiple choice and short answer sections

THOSE OUTSIDE ESTONIA

What are Foreign Founders (outside Estonia) considering Estonia struggling with in their current locations?

For those looking to come to Estonia, foreign founders were most likely to struggle with raising funding and finding appropriate mentors, advice and education. Sales and talent concerns were less likely to be a challenge for these founders. For those responding by short answer, they cited government trust, founding team, banking concerns and immigration barriers and more. Of these however, opening bank accounts and developing a presence in the EU were most often cited.

When evaluating startup destinations, how important are the following?

The ease of doing business and ecosystem culture were most often cited as chief reasons to consider a startup destination over others. The importance of the local market was chosen least often, an important consideration for Estonia as its local market is small in comparison to other European markets. This finding suggests that this aspect is not a considerable barrier for foreign founders to come to Estonia.

When considering the Estonian startup ecosystem, how would you evaluate the following?

For those from outside of Estonia, evaluations of the Estonian startup ecosystem tend to be quite high. There is a strong anticipation of a high ease of doing business, ecosystem amenities and ecosystem culture. Living costs were anticipated to be average, or of good value for money. For all indicators, average scores were all rated to be more positive than negative, with "local market" receiving the lowest evaluation, at 3.2 out of a possible 5.

This finding suggests the Estonian startup ecosystem has a positive view abroad, and that the general view of the Estonian startup ecosystem has high esteem.

THOSE INSIDE ESTONIA

For international founders in Estonia, what countries did you consider? What made you choose Estonia?

Germany, the Netherlands, the UK and the United States were most commonly answered. Ultimately however, founders choose Estonia due to the Startup Visa (60%), Estonia's EU membership (55%) and the country's digital infrastructure (45%). Other deciding factors that were mentioned in the short answer section indicated that the country's taxation policy was attractive, as was the country's livability.

FOREIGNERS MOVING TO ESTONIA

For foreign founders and foreign tech workers who have moved to Estonia, generally, their views were quite positive. While only 20 responded (out of 28), on average, international founders considered that their move to Estonia "generally fulfilled their expectations". When it came to substantive aspects of their move, setting up their Estonian companies tended to be the most straightforward, along with getting a Tax ID, and knowing what kind of visa was needed. The respondents were evenly mixed when it came to setting up a bank account, half found the process to be without complications, and half found there to be some challenges in this area. 44% reported finding challenges with adjusting to the country's climate and way of life.

In the short answer sections, respondents indicated challenges with the public administrative authorities, who speak only Estonian or Russian. Others, mentioned that the company development process was much more challenging than expected, and that the tax system was very difficult to understand. These responses echo the qualitative interviews and focus groups.

Several of the respondents noted that it was difficult to make friends, and that the Estonian investment scene was unwilling to engage with them. These responses echoed some of those mentioned in the interview settings, where some felt that Estonian investors were biased against them or uninterested in their products. Others, suggested that they were discriminated against based on their skin color or nationality when it came to renting properties.

The weather was commonly cited as a challenge faced by some founders. It will be important for the Startup Estonia team to consider in their onboarding process of foreign founders to help them become more realistic about their expectations. From the qualitative work and the survey responses, it is clear that some of them came with some false pretenses that may have been addressed earlier in the process.

The qualitative interviews and focus groups with international founders in Estonia helped to reiterate the views found in the survey. Overall, international founders to Estonia were grateful for the opportunity to move to the country and to have access to the European market. Others, cited the close network and clean climate as particularly important characteristics that encouraged their move to the country.

For those international founders relating negative experiences, we found that many of the challenges international founders to Estonia experienced were related to misunderstandings they had between their expectations prior to arrival, as compared to the actual reality. For many international founders in Estonia, their initial contacts with the country were conducted entirely in English, with the Startup Estonia team, who worked hard to actively address their needs. They felt welcome and desired as prospective movers to the country. This contrasted with their early experiences in the country, as they were unprepared for other aspects of their experience and with other government agencies conducted in Estonian, and without a similar friendly and accommodating manner. Similarly, international founders to Estonia appeared to expect greater accommodations by Estonian investors, business communities and incubators. Some arrived with the misconception that the Startup Visa scheme was more than just a residency visa. It was noted by several participants in the qualitative interviews and in the survey that they expected that there was some funding available for Startup Visa holders, or a specific acceleration/incubation opportunity. Others arriving from warmer countries, continually cited Estonia's harsh winter climate as a difficult challenge for them, something that no guidebook or online research could prepare them for.

Too much Estonian language everywhere. It's a really nice language but it's daunting for people wanting to immediately adjust or settle because it takes time to learn a language and even then using Estonian is forced everywhere. English needs to be adopted more if Estonia wants to compete or be taken seriously internationally.

- International Founder to Estonia

They need to learn how to speak English if they want to be relevant and interesting. My friend tried to import something for a business and they wasted his time making him go back and forth between customs officers and lawyers trying to decide whether to mark it as private shipment or commercial shipment. They don't know how to do much other than what they do regularly every day. It's frustrating because startups generally are based on doing new stuff and we are f orced to lag behind waiting for Estonians to catch up on what we're doing.

- International Founder to Estonia

CHALLENGES FOR ESTONIAN STARTUPS

The most considerable difficulty for Estonian startups (with Estonian founders) was finding appropriate talent. 28% of respondents considered this to be "very difficult" in Estonia. The talent shortage was also linked to the taxation - as employment taxes hinder founders to hire more and pay more to compete with bigger players going for the same talent. However, others cited the availability of "cheap talent" and the overall talent quality as particularly positive.

Inrease the talent pool 10x. – Estonian Founder

Build network that attracts international talent. - Estonian Founder

The talent level is high, as is work. – International Founder to Estonia

In terms of infrastructure, those familiar with the Estonian ecosystem reported that funding availability and local market size were the two weakest considerations. This is not entirely unexpected, as Estonian companies have gone abroad for funding extensively and the local market is ultimately constrained due to Estonia's population. 24% of respondents considered funding in Estonia to be "very difficult".

A SOFTWARE BIAS?

Some of the short answer questions on the survey point to specific areas of concern. Several responses in the survey point to a dominance of software promoted in the startup ecosystem, at the cost of other technologies. This was particularly noted by those working in the hardware sector.

When asked about what Startup Estonia, and the Estonian Startup ecosystem could do better:

"Support hardware!.......When will Estonia realize that "technology" isn't software? There is no support, recognition or promotion for anything that isn't just software. This is a MASSIVE missed opportunity to increase GDP and productivity."

- International Tech Worker in Estonia

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Other survey respondents suggested "building a hardware cluster" or hosting more events related to other types of companies beyond software. One way to address this is through greater outreach of Robotex, the world's largest Robotics Summit, which is hosted and founded in Estonia.

The importance of promoting hardware and other technologies beyond software were also highlighted in the survey. For instance, prospective movers to Estonia were interested to learn more about what these communities looked like. For those outside Estonia, when asked about what information would be needed to make a decision about Estonia, one participant wanted to learn more about:

How the eco-system favors Electronics & Hardware product startups in RF/Wireless areas.

- Prospective international founder, outside Estonia

EVALUATIONS OF THE CULTURE OF THE ESTONIAN STARTUP ECOSYSTEM

For those inside the Estonian startup space, evaluations of the ecosystem tended to be positive. Respondents noted that generally, people were open to connecting and that the ecosystem was inspiring to them. A majority felt that the ecosystem was a safe space to share ideas and find good talent and role models. The welcoming approach to newcomers was also perceived to be very high, with an average response of 3.7 out of a possible 5. Respondents reported feeling comfortable asking for help, and for being challenged by others. However, we found that evaluations of the culture of Ectonia's startup community differed comparately between Ectonian foundary and

that evaluations of the culture of Estonia's startup community differed somewhat between Estonian founders and international arrivals to Estonia. Estonians tend to view the ecosystem with a level of cautious pride, recognizing its limitations at the same time as championing its successes. Estonian survey respondents mentioned positive aspects of culture and community as some of the things they were most proud of.

International arrivals to Estonia tended to view the ecosystem, and the Estonian culture and experience slightly differently.

The people, both in Estonia and the startup space, on balance better than any other place I've been to.

International Founder in Estonia

While overall impressions were generally positive, at times, the responses were more pointed.

"I like that we are small and therefore everyone is important. If someone gives an opportunity we take it. Also, estonians are hardworking people, kinda funny how much they complain about silly things also."

- International Founder in Estonia

"I feel like people can be too scared to dream big. I would love to change that."

- International Tech Worker in Estonia

"The mindset - Estonians are too critical (passive-aggressively) at times and closed."

- International Founder in Estonia

"People here, locals particularly lack ambition and hence don't skill themselves to be better. They brag about entrepreneurship a lot but they're barely working on anything that's not small scale or something that is competitive or relevant internationally. The ecosystem is there, but the people, locals particularly, lack the imagination and drive to do anything. All they do is brag about the ecosystem and saturate it with Estonian language and Estonian startup services that offer zero benefit when compared to other services made by Google or other international companies that Estonian services choose to copy. Like they brag about having Estonian versions of what the rest of the world is doing but it's senseless if those services aren't better or are far less reliable than existing offerings. They just focus on software and even then barely manage to do epic. They can do so much more but they don't focus on it because they lack ambition and drive to be great and make an impact. They mostly just like playing comfortably at small scale."

- International Founder in Estonia

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Discussion of Key Themes

Key pain points for Startup Visa Holders

While Estonia's digital infrastructure and startup policies are among the world's most innovative, the remainder of Estonia's institutions have yet to catch up with the current startup visa policy. This gap has led to certain inefficiencies in incorporating new founder arrivals, who have experienced challenges with opening bank accounts, finding rental apartments, doctors and schools for their children. When discussing these challenges with Startup Visa holders, we find that often their experiences are unique. While a number of international founders cite difficulties, rarely do their experiences overlap with one another. We find, local banking institutions respond to startup visa founders unsystematically, with differences based on business model, industry and founder's country of origin.

Entrepreneurs from elsewhere in the EU have fewer problems obtaining the right bank account, however, their experiences vary depending on (1) the bank they have chosen and (2) if they are in Estonia on a startup visa or a startup temporary residence permit. Those on startup temporary residence permits tend to have the fewest problems obtaining the right accounts and services they need.

• **Bank accounts** - foreign founders have claimed to have difficulties with opening bank accounts both for their companies as well as personal ones. The issue has become more evident among founders on a visa (rather than TRP) and also differs between banks. Main issues they are facing is to provide proof of their businesses involvement with Estonia and secondly compliance with KYC (know your customer) and AML (anti money laundering).

Please make opening a bank account easier for Ukrainian founder. We are an IT company with a lot of clients, but use Latvian bank because it is simpler to do. Estonia is a perfect country for us, but becoming a resident takes time and we needed bank account first. So we opened it in Latvia.

- Prospective International Founder looking to move to Estonia

Action item: Startup Estonia is discussion with Estonian Banking Association to add to display the Estonia-involvement through reference from the Startup Visa. On the other hand, if the company isn't in demand of variety of financial services only traditional banks offer (eg. credits, deposits), then there's a variety of e-payment service providers at startups disposal. With a legislation effective since 2019, the pay-in capital can be paid in also from other sources than local banks.

• **Rental apartments availability is limited for non-natives** - some founders claim they have been unable to book an apartment because the landlords aren't open rent out to English-speaking people. On the other hand there are just a few of those experiences and others haven't had any problems in this regard.

Action item: as good examples of foreign founders being successful in Estonia spreads, so will also the perception.

Finding a community outside of my company was difficult. I think it's a combination of a culture known for not being inclusive, while also being a person of color. I actually had a hard time finding an apartment as a result as people were very honest about not wanting to rent to me. That being said, I've never felt threatened or anything more serious around safety. I think it would be great if your team helped navigate housing and some basic life-needs here.

- International Tech Team Member

• **General practitioners hard to find** - the demand for English-speaking general practitioners (GP's or family doctors). The ones that speak English are fully occupied and cannot accept additional patients.

Action item: Startup Estonia introduced the problem to the prime minister. Though there is no quick fix, work through the prime minister office and the ministry of social affairs to alleviate this program is in progress.

• Awareness about access to the ecosystem is not always clear.

Action item: The monthly Foreign Founders in Estonia meetup event has dedicated time to help build bridges between banking/tax services and international founders with each other and local startup community. The event series will continue on topics relevant for founders coming in. Secondly, a new startup visa landing page is in works and will provide info about the Slack group, startup event calendar and any other relevant parties for startups.

"Foreign founders meetups should be arranged such that each one focuses only one or two subjects. Such as one is for for letting members to pitch their projects, next one on networking, so on. Instead of mixing all of them at one single session, therefore we can decide whether to attend or not easily."

- International Founder in Estonia

• **EU funding opportunities** - there's some awareness that with an Estonian company a founder can benefit from the EU funding instruments, but not what the options are and how to apply for them.

Action item: Startup Estonia is thinking about hosting an event dedicated on EU funding opportunities for startups and also include info about them in the web.

• **High taxes on salaries** - The 0% corporate income tax on reinvested profits is positively marked by founders. On the other hand, the fact there are no extra benefits for early stage startups as a whole or foreign founders, makes employing and paying salaries expensive. When overall the Estonian tax system is seen very competitive, the fact some other states having tax exemptions is seen as a deficit.

Action item: Startup Estonia is working together with relevant ministries to roll out a tax instrument for tech companies in their early days to share the entrepreneurship risk with the entrepreneur for a larger tax contribution in the longer term.

"Estonia has a good and open startup community. But when I arrived, it was tricky, in the sense I didn't understand the processes. I was looking for information on how the country operates. I had to do a lot of digging. The tax information was not found in English, so I had to Google Translate it with two screens...I landed and went to police board. Was a bit scared but I was greeted by friendly people."

- European Founder in Estonia

Community involvement and outlook

The Startup Estonia Ecosystem survey examined the strength, involvement and value of the startup community. It sought to develop a baseline understanding of what community involvement look likes, what is working in the community and what should be promoted.

For those that are currently active in the Estonian startup scene, evaluations were seen to be broadly supportive. Responses from both the interviews and the survey indicated that the startup ecosystem was supportive of sharing and of helping one another. Many cited the close "community" and relative ease of building a network across a small ecosystem. Continually, the ecosystem's "people" were cited as the most positive strength of the startup community, and the events helped provide considerable value and inspiration.

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Despite these positive associations, the interviews and ethnographic research indicated existing aspects of the ecosystem that could be improved. For those that utilize a specific co-working space, one's activities tend to be mostly confined to those held by your affiliated co-working space, rather than participation across the entire ecosystem. There is room for more collaboration and exchange between co-working spaces, especially in terms of events.

While respondents generally feel comfortable meeting with others, there tends to be little overlap between coworking spaces and incubator settings. At startup events, networking can feel forced, and questions can be hardly forthcoming. Greater efforts to engage participants across channels and encourage the development of activities to bring the ecosystem together could be further promoted. Activities such as Latitude59, which bring the entire ecosystem together, can be utilized to greater effect through side events and activities to build solidarity and create connection. Further events that help to bring the entire ecosystem together, can be used more effectively in the future.

Few-hour seminar events are not really helping with networking. Best for networking is a few days event - we used to have Startup Estonia summer days (basically summer days for startupers) and this was really useful, most of my new contacts in startup community were made there only, once a year.

- Estonian Founder

The few co-working spaces in both Tallinn and in Tartu give managers of these spaces an outsize role in the ecosystem. However, the economic realities of running these spaces can potentially lead to the creation of a competitive atmosphere, challenging the collaborative aspect that communities depend on. Similarly, the distance between Tallinn and Tartu, and those working elsewhere such as Narva remains a challenge. The vast number of events held in Tallinn challenge those working elsewhere in the country. While some cited that Estonia's tech events were not useful to them, the overall consensus of respondents from the survey and qualitative work suggested that there should be more events, with more international speakers and networking opportunities. Opportunities should be pursued to help support livestreaming of events, to ensure greater sharing and penetration to those that are geographically distant.

• Action item: Estonian Startup Shop

Create a storefront for Estonian technology products and services. Estonia has experienced an 8th record year for tourism-- 3.54million visitors in 2017. Product discovery for startups is low as startups are generally built behind closed doors and take up little physical space. Utilize the country's increasing tourism to grow your local market by showcasing Estonian technology products. This can be done either in the airport, or in an expo style using a city center storefront. This could double as a public workspace for startups. Interns could demonstrate products and founders could even schedule time to be on hand to share their products (helping them with their pitching and presentation skills). This would help make the startup community more visible not only in the eyes of the international visitors, but also local Estonians. Non-ending startup expo. Will also create visibility for startup visa program, e-residency (apply in person!) and other digital infrastructure initiatives. Take the online, offline.



More educational opportunities

One point mentioned by both Estonian and international founders was the desire for education, international speakers and assistance with business development. There is a desire from both sides that the Estonian startup ecosystem does not have nearly enough opportunities to learn about building companies and does not sustain enough diverse perspectives on the many skills necessary to run a successful company today. One example is seen with regards to pitching. When asked about the features that should be promoted in the Estonian startup ecosystem, the responses to "Bringing high profile speakers to Estonia" and "Masterclasses and practical training on specific topics, such as pitching or how to scale" and were continually rated highly.

I'd bring in more high-level professionals to learn from and start raising the level of leadership.

– Estonian Founder

Barriers to Participation

For those that took the survey but were not currently active in the Estonian Startup Scene, 55% lack time and 62% were afraid they did not know enough to get involved. This is a key opportunity for the startup community moving forward, to help ensure greater access points to the ecosystem.

Awarenesss and Understanding of Startup Estonia

Startup Estonia has a broad platform to develop the country's entrepreneurial ecosystem. However, both the qualitative interviews and the surveys indicated that many in the local startup community have a low understanding of the role Startup Estonia plays. In the survey, 63% of respondents answering the question about the awareness of the Startup Calendar and Database reply they are not aware of it. This was reiterated during our outreach events at SpringHUB in and Lift99 in Tallinn, where we found that many were unaware of the exact aim and role of Startup Estonia in the community. For example, individuals responsible for curating startup events and promoting them were unaware of Estonia's Startup Digest calendar, an excellent resource to promote and share events taking place across Estonia's startup ecosystems. This lack of awareness by the community leads to a low utilization of the tools and services provided by Startup Estonia, as well as greater insularity within the community. For Estonians, a common finding was that the perception that Startup Estonia worked only for international founders, or for the international community in Estonia. Others, viewed Startup Estonia's role as one that sponsored activities and events.

"Startup Estonia is still very "early-stage". please focus on value. not processes, associations, clubs etc... I know that Startup Estonia has been connected with startup visa and.... some startup stats gathering. I have no idea what else can you help startups or do"

Estonian Founder

To be an active and supportive champion of Estonia's tech ecosystem, Startup Estonia must do more to connect with its community and spread awareness. They should utilize their spaces available in the local coworking spaces, and spend more time attending evening events and getting to know the local community and earning their trust. Many of the key qualitative insights found during the course of this research should be ongoing conversations with community members. A greater effort on behalf of the Startup Estonia team should be made to participate in the local daily life of their tech ecosystem, to help communicate the value this organization can provide, as well to ensure a strong feedback loop between the organization and the community.

I would name "startup" something else and that word would certainly be in Estonian... I don't know what Startup Estonia is..

- Estonian Tech Worker

Startup Estonia can also use their platform to amplify the message of the startup ecosystem more cohesively. Several examples cited from a survey participant stressed the importance of bringing a more accurate depiction of the startup landscape to bear:

Sharing success stories, we only ever hear about the perceived "top companies" even though they only raise money and don't make profits yet :) there are plenty of startups under the radar doing very well, but Startup Estonia doesn't talk about them

Estonian Founder

Less repetitive hype. Yes, we have some cool and well-made startups but sometimes it's too much topics around specific ones. I mean, for how long can we milk the Skype :)

Estonian Founder

Estonian Diaspora

Our survey found that Estonians abroad wish for more interaction with the Estonian Startup community. 68% of Estonian respondents abroad responded positively for becoming an ambassador for the Estonian startup ecosystem, 79% would like to learn more about how to support Estonian startups abroad and 76% of respondents would like to work to help create a network for the Estonian tech diaspora. International Estonians are currently an untapped resource for the country's local ecosystem.

The biggest problem here in NYC is that every Estonian related entity, startup upsnor otherwise are surprisingly disconnected from each other. You can go years here operating within a small community and be unaware of whole other branches because of the lack of unity and communication. This is particularly true within the Estonian tech scene here where some eestlased go through the traditional Estonian community here and others ignore it completely. On top of that you have expat eestlased vs American born väliseestlased and there comes usually a really big disconnect. In the second largest tech hub in the states after SV it's pretty ridiculous that there isn't an Estonian tech council in place to bridge the connection between every one here and at home.

- Estonian Diaspora

Estonia's large diaspora, relative to the country's size presents a unique opportunity to amplify the country's the country's tech scene. There is the possibility to develop a comprehensive diaspora strategy that works more closely with the Estonian diaspora to share information about the local startup community and to harmonize activities. This might take a similar form to other neighborhood organizations, such as La French Tech, but also to help bring expertise and knowledge gained abroad back to Estonia on a regular basis, through workshops and seminars. Greater outreach amongst the Estonian diaspora, especially amongst those who completed the survey and have asked for more involvement, should be pursued.



Reaching prospective Startup Visa applicants

46% of founders outside Estonia noted the "ease of doing business" to be the most important rationale for choosing a startup location. The next most popular consideration was funding availability, chosen by 26% of all respondents. The first is a considerable bright point for Estonia, which has invested heavily in its digital infrastructure and business legislation. The second point, on funding availability is more difficult – whereas statistically Estonia is performing very well, some founders come with expectations that there's money lying around and waiting to be picked up, which is definitely not the case.

In 2015 I went to Websummit in Dublin. Met an American investor there, who said:" I really like your idea, you should consider going to Estonia. They have an awesome startup infrastructure there." "Got e-residency, came to Tallinn."

- European Founder in Estonia

Startup Estonia is doing roadshows, supported by social media campaigns to countries perceived to have high potential for relocation of startup founding teams, and prospective talent to work for Estonian startups. Most roadshows include a larger startup event (eg. conference), where there's a possibility to have stage time and/or a booth to introduce Estonian startup environment. In addition to physical presence, Startup Estonia frequently tries to publicize content on startup news channels. Overall, the outreach has been quite successful and the understanding of Estonia as a startup location is seen to be quite positive, as reflected in our qualitative survey and interviews. Prospective movers to Estonia continually highlighted the country's success with initiatives such as e-governance and e-residency as reflective of a modern and advanced society. Survey respondents highlighted the country's digital infrastructure and perceived ease of setting up a company one of the most recognizable aspects of the country.

Investing in Estonia and the Estonian Investment Landscape

Estonia's early stage funding landscape is anchored by EstBAN, the Estonian Business Angels Network. EstBAN has proven to be a valuable player in the local ecosystem, by hosting events and by sharing success stories from their funded startups. From this work, we have found Estonian investors are active in the local ecosystem and are very open to sharing their insights and sentiment on the strength of the country's startups.

Estonian investors mention that currently, Estonia lacks capacity for companies to scale beyond a certain size – as they will be challenged with finding talent, expertise and a market locally. This has led many Estonian firms to develop an international mindset and grow abroad early, a tendency that has led Estonian firms to be known internationally.

Estonian investors appreciate the tightly knit network that allows them to easily do due diligence on local startup teams. However, international founders to Estonia are concerned that local Estonian investors are not interested in their ventures as they lack this shared background.

Mainly local investors not taking the gaming industry seriously - seeing it as high risk, but not as high reward.

- Estonian Entrepreneur

Bring in investors to introduce them to the startups founded by foreign founders, investors should see each startup as an opportunity not a threat to their current investment, they should be ready for fair competition.

- International Entrepreneur in Estonia

Estonian investors are shortsighted or rather less exposed to the outside of Europe, due to this its hard to get investment in Estonia, I am not at all satisfied with Estonian Investor community, they in most cases only look to fund companies founded by locals or Nordic-Baltic. Along with banking, investor mindset will be a bottleneck for Estonian startup scene, if you are looking at foreign founders to actively come in Estonia.

International Founder in Estonia

You guys are very conservative people. Your startup hubs and investors don't care about new ideas or non-EE startups. It's all about Baltic Union for high level marketing. I've tried everything but no-one cared, my company is edge on death. Thank you for nothing. I'd like to stay e-company if I can survive...

- International Founder in Estonia

Efforts must be made to connect startup visa companies with the local investor network, as well as to educate international founders about the opportunities available locally. An open investment climate requires exchange on both sides-- companies willing to understand what investors are looking for, and for investors to be open to new opportunities. Activities that can facilitate exchange and understanding between local startups and entrepreneurs, as well as efforts to attract more international investors, can help to make the investor community more open and accessible to both Estonian and international entrepreneurs.

What Estonia is Doing Well

The research exercise was undertaken as a fact-finding mission, to find the challenging aspects of the ecosystem in an effort to identify them, and to create a foundation to work to change them. As such, this document highlights a number of the challenges mentioned in the surveys and qualitative work, among them, the challenges posed by an emerging ecosystem that has undergone significant transition in its short lifecycle. The challenges mentioned by the founders and investors are here to document impressions at this state in time. However, they should not be interpreted as the only impressions received about the ecosystem.

Throughout the qualitative interviews and focus groups, numerous stakeholders shared numerous positive impressions about Estonia. We find, that despite some of the difficulties mentioned above, those that offered to interview with the research team were invested in the success of Estonia as a place for early stage entrepreneurship and were generous with their time and volunteering their candid impressions and suggestions for how to improve the future. For many of the international entrepreneurs, they cited Tallinn's local amenities, closeness and high quality of life as some of the most compelling aspects. One founder from the United States, described Tallinn as the "Beverley Hills of the region, without the pretentiousness. It is a charming place". Others were further charmed by the country's accessibility, and the opportunities they have had to connect with government officials, such as the Prime Minister, and find themselves on stage, such as the Startup Nations Summit, held in Tallinn in 2017. Founders who have had these opportunities, were proud of the accessibility and visibility being located in Tallinn has afforded them, especially the consideration that the country is devoted to the international startup visa program. Founders who were successfully granted startup visas, feel "chosen" to be here. Most importantly, founders felt the opportunity to live and work in Estonia affords them a new beginning, or a new start, ripe to begin their ventures.

"Estonia gives me space to try new things, people here are friendly, and you have the freedom to be creative. Rent is cheap, compared to other Asian countries and there is freedom in other perspectives... the country is encouraging and into change without afraid to fail. Asian countries blame failure."

- International Founder in Estonia

The country's digital infrastructure similarly highlights the country's openness to try, and to innovate. Many international founders in Estonia, and prospective founders mentioned the country's digital infrastructure as a key selling point that encouraged them to look to Estonia as a place that was actively innovating the future. Founders mentioned that the lack of these bureaucratic barriers meant they "could be more efficient" and "ensure greater trust in the government".

Another common theme we continued to return to throughout the interviews and qualitative work was the ecosystem's championing of honesty and transparency in the startup scene. One interviewer highlighted that elsewhere, you would find fancy pitches and websites describing products without a business to support it. Similar cases are rare in Estonia. Here, things are transparent. Founders do not work on perception, rather, those that are involved in the ecosystem are not passengers or visitors. Those that are actively involved in the ecosystem are strongly invested in its success.

Another key selling point was the startup visa itself. When compared to other startup visa programs, international founders to Estonia perceive the barriers to the program to be lower than elsewhere. To them, this communicates lower bureaucratic challenges and more openness to international people. While some mentioned they would have liked more feedback on the process, the program's generous residency terms and low financial barrier are indicative of Estonian openness.

"[The] Startup Denmark visa is only for two years. Estonia seemed more sustainable. Denmark has a strict immigration law. I applied to a number of different schemes but Estonia is generous in terms of time given"

International Founder in Estonia

Most importantly, community members highlighted Estonia's friendly atmosphere and level of tolerance as one of the most lasting impressions of the country. The Estonian Startup Visa itself stands as an open door to the world and for opportunity. For those new to Estonia, or those who are native Estonians, tolerance and openness to others, remains a value that makes the community work. Estonian founders, especially those who have spent time abroad and have returned to Estonia, continually highlighted that the country's tolerance and friendliness (especially in the startup community), has kept them in the country, despite opportunities elsewhere. One Estonian founder, when describing what they liked about the country's startup ecosystem, described that some of the best things about Estonia was that because things remained small, it has led to "no hierarchies within the community". This level playing field makes it possible for even international founders to quickly build their networks.

"After a couple of weeks, I had an Estonian co-founder I met at a Bitcoin event. This convinced me to stay

- International Founder in Estonia

"[Because of the] smaller community, you can reach people more easily. Getting into an accelerator or incubator in England would be so much more difficult

- European Founder in Estonia

Because things were small, it forces founders to continue to think global from the very beginning, something that is necessary for all global companies, despite their location. One founder, argued that Estonia should "stay small, but be open to foreigners, who were similarly committed to building the Estonian startup ecosystem...if things grow too much, the overall community grows weaker. Why things work here is because there is a sense of belonging. This comes from trust and strong relationships.".

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"I love the four seasons in weather, and I love the Estonian people. I have fallen in love with the place. The mixture of small to high level business, its easy to feel a part of the Ecosystem, it's amazing...I see myself living here in the future for sure"

– European Founder in Estonia

This tolerance, and openness to others, points to some of the reasons that Estonian startups have been successful historically. A commitment to openness, transparency and building relationships, both inside the community and across borders is a hallmark of many of Estonia's top success stories, including Pipedrive, Jobbatical, Transferwise and Testlio. Each of these products has strongly relied on building relationships and services that connect people. In turn, each of these companies is a metaphor for the value of building trust and connection.

It is imparting these values that indicate the true measure of "Estonia as a Service".

"I just had an idea before coming here...now I feel like home"

– European Founder in Estonia

Leading the way to the Estonia's unique value proposition

Above all, Estonia provides an unparalleled launchpad in Europe from which to build global companies. The country's digital infrastructure, lack of bureaucratic hurdles, close-knit and open startup ecosystem provides ample opportunities for new companies from around the world to gain a strong foundation to scale outwards.

Estonia's high degree of transparency, whether it be in policy or through its people – helps create a welcoming environment for founders that are driven to build and create.

Selection of arguments most often mentioned during the research:

- Estonia is small and effective in Tallinn you will never spend more than 30 mins in daily commute. Everything is reachable by public transport or on foot.
- Vibrant ecosystem decent number of events and some 70+ organizations are there to support the growth of startups.
- Digital infrastructure to run administer your business. Registering a company takes half an hour, administering tax returns a few minutes.
- → Well-liveable high quality of life for affordable price. Clean environment with 4 distinctive seasons.
- Safe online and offline you can trust the government to keep your data safe and also feel safe on the streets.
- Accessible Startup Visa gives easy access to founders from outside EU to run their business in Estonia. Due to the country's size and open startup ecosystem, it is also manageable to build meaningful connections with c-level business and public officials, fast and easy.
- Low bureaucracy entrepreneurs can focus on building their business instead of spending long hours on meeting the demands of regulators. 0% corporate income tax attracts growing companies.
- Estonian legacy of startup success and high amount of unicorn companies per capita is unlike anywhere else. Companies from Estonia are known on the international stage, and are respected for their global perspective and excellence.

Please refer to Annex 4 for a copywritten text of the Estonian Unique Value Proposition.



Summary – Conclusion

The ESTaas project was brought to life to better understand the status quo of the Estonian startup ecosystem from both insiders and outsiders point of view. The main aim though was an attempt to capture a multi-angled perspective of founders choosing a place for their activities and on top of this knowledge understand how to promote Estonia as a startup destination and on the other hand make Estonia live up to the expectations of founders.

There were a variety of positives mentioned about Estonia, e.g. the known to be fully digital nation with all its e-government services and e-residency program. Also, the fact that Estonia is known to produce strong startups and that the business environment supports all new companies. People from much larger ecosystems noted that the smallness of Estonia plays in its favor – everyone here is closely connected and a kind of a humane touch in relationships is still very much there.

But of course, there are also challenges. Some of them rising from false expectations, but some very much real and demand attention. There were problems that can straight be assigned to policy-makers, to Startup Estonia and to startup community organizations.

Those that were planning a move and those already in Estonia had some different views on Estonia. Overall Estonia was seen as part of the European joint market (and the absence of local market was no deal-breaker) and access-point for it for those outside EU. But the startup culture, digital services, accessibility (mentioning startup visa) and livability (cost-living quality ratio very good) were mutual to get high scores.

Estonian founders marked the talent shortage as the main challenge for growing their company. Since only some proportion of expat founders had started their hires by the time of current research, the talent issue didn't come up for that group too often yet.

Almost 1/4 of the respondents believed it was very difficult to raise investments in Estonia. Some foreign founders went even that far to suggest angel investors were discriminating teams other than of local background. There are new VC and angel investment funds being launched in Estonia which is poised to make the funding landscape better than ever. The internationalization of their portfolios will demonstrate if this hypothesis holds or not.

Some foreign founders were expecting there would be special benefits for startup visa holders (eg. grants, incubation program) and the absence of it created some disappointment. Research suggests that while promoting Estonia we should also try to help form realistic expectations among those planning a leap to Estonia.

During the ESTaas project one of the key issues the research team investigated was the unique strengths Estonia has and could further develop. We wanted to know if there is one single or a few especially strong verticals where Estonia could become the international leader. Keeping all eggs in one basket can be dangerous as witnessed with Nokia, but we were eager to know if a few wider sector or technology might work for Estonia.

The vast majority of Estonian experts as well as foreigners already in Estonia pointed us in the direction that Estonia is kind of a universal hub for early stage startups to make their first moves and validate their product ideas. Supportive startup ecosystem, reasonable cost level, smart people, low level of bureaucracy etc. were brought up to support this argument. Also looking at the successes of Estonian startups until this report, they do come from different areas.

Yet there were some strong sectors where experts see a great potential: cyber security (thanks to the experience of Estonian ID-card "x-road infrastructure" strong defensive capabilities); personalized medicine (making Estonian health records open for businesses).

Also, there was some criticism for treating only software related businesses as startups and discriminating hardware. Estonia has a long history in the electronics industry dating back to 1924 when Edisson&Co started producing radio equipment for German Telefunken, during soviet occupation radios for military use nowadays Ericsson phones and ABB electrical equipment are being assembled⁹. That would suggest there is accumulated knowledge and experienced people in Estonia. Also, one of the first hardware-focused startup accelerator programs in Europe was introduced back in 2014 - BuildIT hardware accelerator.

Whereas the startup visa scheme was seen as a positive example of effective public process, then in other areas there were difficulties. Opening bank accounts was mentioned as the biggest problem, followed by finding an English-speaking general practitioner and also the fact that not all public servants aren't fluent in English. These are the among the problems that need attention for Estonia to live up to its reputation.

The research also suggests that there are opportunities with great potential left without attention. Most important of them making a better use of Estonian diaspora. There are Estonians and fans of Estonia around the world ready to help their peers with connections is other ecosystems as well as promoting Estonia. It is definitely happening on personal-relation level, but for a larger-scale engagement frequent work is needed.

Lastly the survey also suggests strengths to be used as a baseline to develop the unique value proposition of Estonia for (foreign) startup founders. Some of the factors to consider are livability, low bureaucracy, country's digital infrastructure, lack of bureaucratic hurdles, open and supportive startup ecosystem that provide a great surrounding to get teams going and access bigger markets being in Estonia.

The response rate to the survey suggests an important area for improvement next year. Different strategies that can be deployed for this were suggested to in the research methodology section. With the number of foreign founders in Estonia is growing we will rest assured face new challenges arising. This suggests that this project shouldn't remain a one-time effort, the foreign founders and organizations & services catering them should be researched frequently and in depth.

⁹https://www.mkm.ee/sites/default/files/news-related-files/made_in_est_sisu_72dpi_.pdf

Annexes

Annex 1. Performance of mailing lists

	Date of the campaign	Number of recipients	Open rate	Click Through Rate (CTR)	Clicks to the survey in %	Clicks to the survey in numbers
General mailing list	5.3.2018	2073	38,9%	7.4%	6.8%	141
Foreign Founders in Estonia	5.3.2018	140	60.9%	21.7%	19.2%	31
Startup Support organisations in Estonia	16.3.2018	81	58.5%	26.3%	22.2%	18
Estonian Startup Database	19.3.2018	567	48.6%	6.6%	3.8%	22

Annex 2. Performance of Facebook campaigns

	Reach	Clicks to the survey	CTR
Fans	10558	230	2,18%
Website Custom Audience	5664	242	4,27%
Website Custom Audience and Fans Lookalike	12069	85	0,7%
Tech Early adopters + Startup interest in Estonia	3225	29	0,89%
Newsletter List	365	4	1,1%
Everyone who engaged with our page	3038	14	0,46%
Total	34919	604	1,72%

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Annex 3. Performance of Twitter campaigns

Tweets Top Tweets Tweets and replies Promoted	Impressions	Engagements	Engagement rate
Startup Estonia @startupestonia · Mar 6 Estonian #startup ecosystem needs you! Participate in this short survey to help @startupestonia make our startup ecosystem better for everyone. #EstonianMafia bit.ly/StartupEstonia pic.twitter.com/YldgeJDUnP View Tweet activity	6,281	105	1.7% Promote
Startup Estonia @startupestonia · Mar 15 Help us to improve our startup #ecosystem! Participating and sharing is much appreciated! © twitter.com/startupestonia View Tweet activity	1,297	13	1.0% Promote
Startup Estonia @startupestonia · Mar 19 LAST WEEK TO PARTICIPATE! % twitter.com/startupestonia View Tweet activity	812	4	0.5% Promote
Startup Estonia @startupestonia · Mar 24 LAST DAY TO PARTICIPATE! # # # twitter.com/startupestonia View Tweet activity	1,010	9	0.9% Promote

Annex 4. Unique value prop of Estonia.

Copywrite by Villu Arak (General Specifics OÜ)

A tiny superpower

Estonia is roughly the same size as Switzerland. But with 6x fewer people, just 1.3 million, we compensate in other ways. As any tiny overachiever would. Our superpower? Startups.

So far, Estonia has produced four billion-dollar unicorns: Skype, Playtech, Transferwise, and Taxify. A dozen homegrown startups are valued over \$100m each.

Noting this, successive governments have been eager to cement Estonia's reputation as a startup miracle. They've adapted laws to reflect fast-growing companies' needs, from introducing startup visas to killing silly rules that held founders back.

Being small is great. (Ask any virus or nanobot.)

We move fast. We have to. The community here is vocal, demanding, and rightfully so. Estonia's two top cities, Tallinn and Tartu, host full-blown startup ecosystems with 500+ events, 70+ community groups, experienced mentors, and 140 business angels.

The Estonian startup scene is supportive, tight-knit, and eager to learn by sharing. Unlike in hyper-protective startup "communities" elsewhere, we're not that into NDAs. The sign of an insecure amateur founder. Ideas are cheap. Execution is key.

Your startup operating system and unfair growth hormone

Big says it'll get back to you in six months. Big's a fat cat. How about some thin and agile?

Estonia has worked hard to alleviate the pain of building your startup. Think of it as a fast, invisible OS that gets out of your way.

You've heard the pitch: Run your business almost entirely online, report automatically pre-filled taxes in a few clicks, and use mobile ID to sign legal documents on your phone. It's true and it works. Want more? How about special startup visas and no corporate income tax. Government services are meant to run in the background and stay out of your way.

Run it from here. Execute anywhere.

Estonia isn't your market. We're your accelerator. Find your product/market fit, get ready to scale, and run your lines to where your client is.

Use Estonia as your base for anything that doesn't need your physical presence elsewhere. Take Taxify. Launched in 2013 and a unicorn since 2018, it operates rides in 27 countries, but has kept its HQ and largest office in Tallinn, Estonia.

Estonia also makes financial sense. Your burn rate will be lower than in most other startup hotspots. Stretch that runway. Plug into the Estonian OS and run your European business.

Join the local startup community and use the startup visa we've introduced for foreign founders. Build your team with the talent you need, no matter where they're from.

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Responsive digital government

Ignore the lazy stereotype. Most Estonians you'll meet are a sincere, business-minded people with a chill attitude. And we really trust our government.

Yes, we still complain about certain people or initiatives. But at the core, there's solid, earned trust in government institutions and the technology it employs.

Estonians have digitally signed binding documents since 2002 and voted online since 2005. We keep digital health records and other personal data online -- with baked-in safeguards against unwarranted government monitoring. Public services are digital, transparent, and secure.

Our leaders are our classmates, neighbors, and former colleagues. They cannot hide. If you need to meet the chancellor of this, the minister of that, or the president herself, they're approachable.

"Estonia has embraced the digital revolution in a socially conscious way, showing countries far greater in size how to embrace digital change. Through integrity, hard work, and the ability to be open and exchange frank ideas."

- Kieren Niĉolas Lovell, communications & cyber security specialist

€500m in available funding

Several new seed funds and VCs are chasing world-changing ideas, and are all easily approachable. In addition to individual angels (see EstBAN), try Karma.vc, Superangel, Trind.vc, United Angels, Change Ventures, Tera.vc.

There is more than enough funding available. Given the size of this country, the €500m warchest total is quite stunning.

Quality of life before you're acquired

Burnout doesn't have to be a thing. Eat well, sleep well, think well. In Estonia, you don't have to choose between your business and your life. Why would you, anyway?

Balance is key. Otherworldly bogs and peaceful forests are no more than 30 minutes away. (Yay for being #4 in global air quality.) And there is room for everyone -- Estonian population density is 4x less than the EU average. We like our personal space. Space is good.

Safe. Online and off.

If anything defines this small country, nimble and resilient comes to mind. Having endured foreign occupations, Estonia got back on its feet in no time.

In 2007, it was the first country to suffer a state-sponsored cyber-attack. We got the message and built superb defensive capabilities.

Estonia organizes the world's largest cyber-warfare drills and is the home to Guardtime, the world's biggest blockchain company. In 2017, Estonia ranked first in the Global Cyber Security Index, and hosts NATO's Cyber Defence HQ, and the EU's IT agency.

Or just go walk our streets and ponder all this over coffee. The streets are safe and the coffee's excellent.

Estonia.



Your startup's operating system.

Start Europe here.

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