



ANNEX 4.6 TO THE JRC TECHNICAL REPORT

High Growth Enterprises:

demographics,
finance &
policy measures

FACTSHEET - ESTONIA (EE)

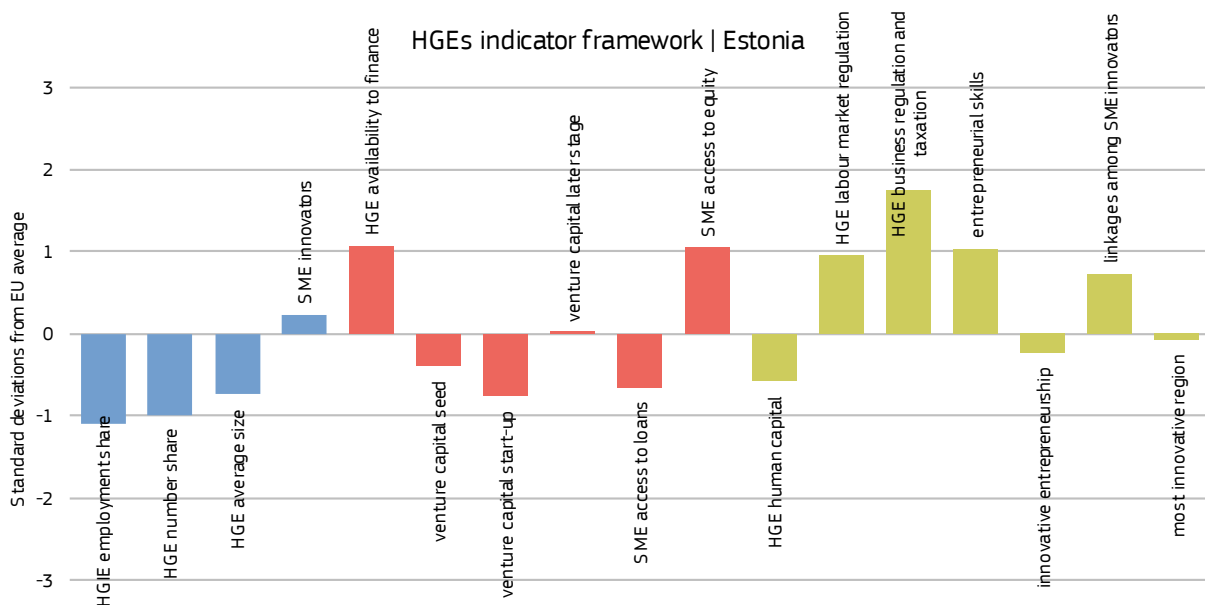
F. FLACHENECKER
J. GAVIGAN
X. GOENAGA BELDARRAIN
G. PASI
N. PREZIOSI
B. STAMENOV
G. TESTA

1. Executive summary

EE performs relatively well on a number of factors determining the development of high growth enterprises* (HGEs), including the regulatory environment, entrepreneurial skills and availability of finance. EE offers quite favourable conditions for entrepreneurs to start their companies and to allow them to grow. The Ease of Doing Business index by the World Bank (2019) sets EE at the 16th position worldwide (and 5th in the EU). Among the main assets of EE are a liberal economic policy and a well-developed entrepreneurial ecosystem. Good entrepreneurial competencies are also beneficial for establishing companies with growth potential and attracting investors. Enterprises can benefit from digital government services that allow companies to establish themselves in a very short time. EE allows companies to operate online as modern IT solutions are in place (e.g., state e-services, e-banking, e-ID card and a digital signature legally equal to a handwritten signature). Nevertheless, the e-Residency programme that allows individuals to start businesses without living in EE is frequently criticized for making EE more vulnerable to money laundering activities. For a small economy, EE has a high number of 'unicorns': Skype (messaging software), Playtech (gambling software), Bolt (Taxify) (ride-hailing), and TransferWise (money transfer), testifying to its success in creating a vibrant start-up environment.

However, the HGEs firm demography does not reflect the above-mentioned favourable conditions. The share of companies that belong to the HGE category and their employment share are lower in EE when compared to the EU average. This could be due to the fact that in the Estonian business ecosystem, the majority of enterprises are micro companies with fewer than 10 employees (in line with other EU Member States), and their growth is hindered by the size of the EE market. All companies which want to grow eventually need to start exporting their goods or services.

2. HGEs indicator framework

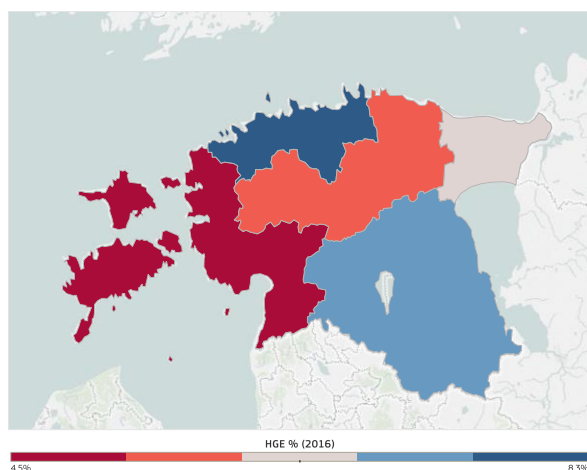
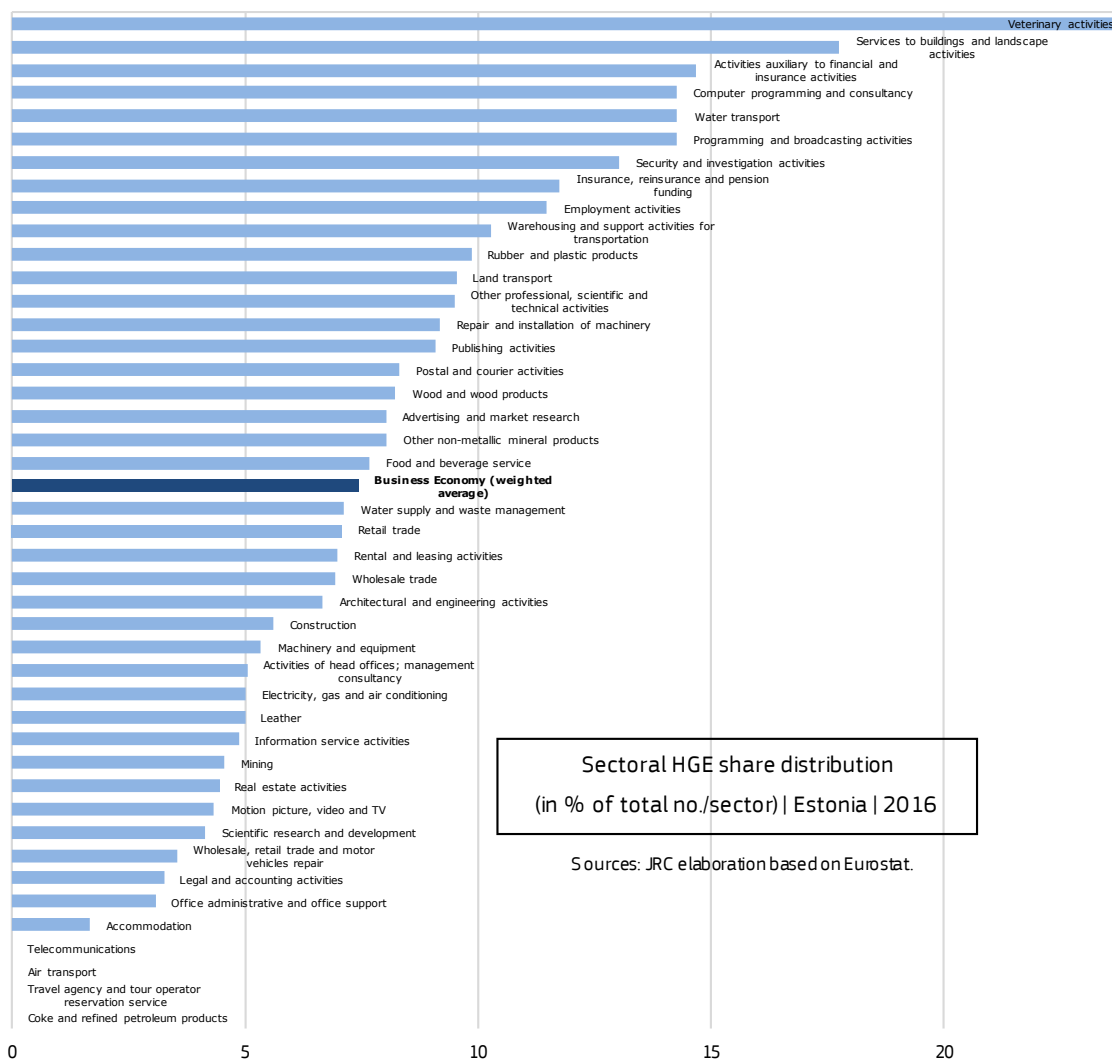


- Despite the good availability of finance to HGEs and access to equity for SMEs, the share of companies that belong to the HGE category and their employment share are lower in EE when compared to the EU average. The employment by HGEs currently stands at more than 34,500 employees in 2017.
- HGEs in EE do not perceive labour market regulations or business regulations as investment barriers. Yet, results of the Econ EIBIS 2019 data show that the companies' investment activities could be impacted by the more pessimistic view of the situation by Estonian companies, as the share of companies stating that the economic climate will worsen over the next 12 months is higher than the EU average.

* In line with Eurostat, HGEs are defined in this factsheet as enterprises having (i) experienced an annualised average employment growth rate of 10% per year over a three-year period and (ii) at least 10 employees at the beginning of the growth period. The importance of HGEs is directly linked to their substantial contribution to employment growth, productivity improvements, economic renewal and innovativeness.

- The self-perception of Estonians shows that they feel that they have the required skills and knowledge to start a business, but companies in EE more frequently than companies in the EU report the lack of availability of staff with right skills as an investment barrier.

3. Firm demographics and sectoral decomposition

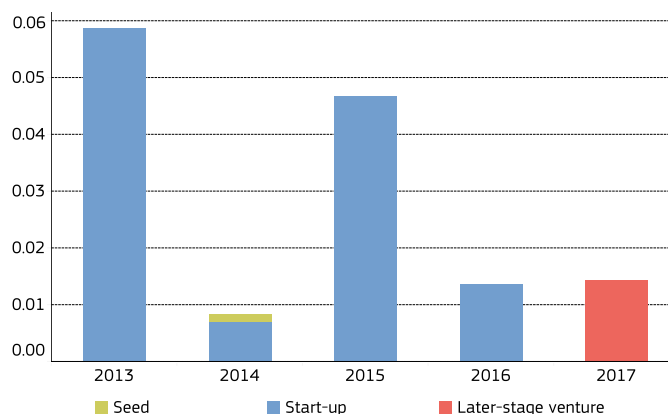


- The Eurostat statistics show that the average share of HGEs in the business economy is 7.5%. The highest shares of HGEs in EE were observed in the following sectors: veterinary activities, services to buildings and landscape activities, and activities auxiliary to financial and insurance activities.

- Enterprise Estonia, which is the main agency in charge of implementing the Estonian Entrepreneurship Growth Strategy 2014-2020, is reporting that in their portfolio of 'growth clients' there were mostly companies from metal industry, followed by food, ICT, and textiles.
- HGEs are mostly concentrated in the regions around Tallinn and Tartu.

4. Financing HGEs and start-ups: the role of venture capital

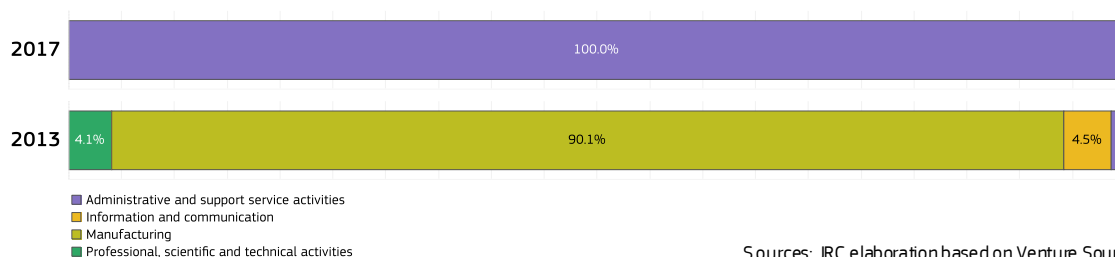
Venture capital by stage of financing (in % of GDP) | Estonia | 2013-2017



Sources: JRC elaboration based on Venture Source.

- The statistics on venture capital (VC) based on Venture Source show that most prominent VC investors in EE are focusing on seed and early stage of financing. The Estonian Venture Capital Association (EstVCA) data for 2016 shows that approximately 34% of total VC was spent on support of seed, start-up and early growth stages of companies, 26% on growth, 24% on expansion and 16% on buyout. Based on Invest Europe data, in 2018 the venture capital constituted 9% of total investments in Estonia, out of which 24% were spent to support seed stage of companies, 7% on start-ups and 69% on later stage ventures.
- The Eurofound study (2018) identified lack of support during the prototype phase of start-ups in EE. Also, the supply of VC for start-ups is considered to be limited and most investments do not exceed EUR 1 million[†].
- Startup Estonia data[‡] shows that there has been an exponential growth of general investments into Estonian start-ups over the last decade: from EUR 7 million in 2008 to EUR 328 million in 2018. At the same time, the number of deals remains relatively low.

Sectoral distribution of VC investment (in %) | Estonia | 2013 & 2017



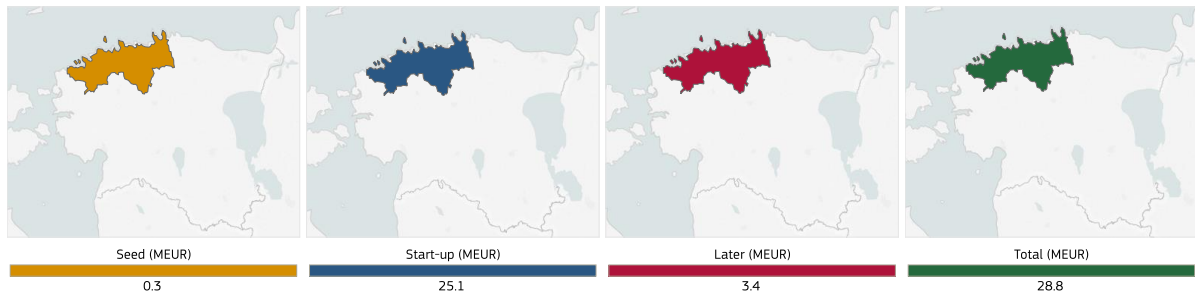
Sources: JRC elaboration based on Venture Source.

- The Venture Source data show significant change in the distribution of investment recipients by sector between 2013 and 2017. In 2013, the investments mainly occurred in the manufacturing sector, whilst in 2017 in the administrative and support service activities.

[†] Future of manufacturing Startup Estonia – Internationalisation policy measure. <https://euagenda.eu/upload/publications/untitled-d-191856-ea.pdf>

[‡] <https://www.startupestonia.ee/blog/2018-records-for-the-estonian-startup-sector-new-wave-of-entrepreneurs-in-the-community>

Regional distribution of VC investment by stage of financing (in MEUR) | Estonia | 2013-2017

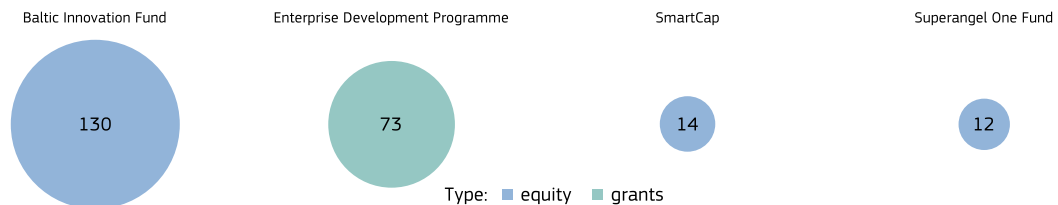


Sources: JRC elaboration based on Venture Source.

- In EE, the concentration of all stages of VC investments is observed mainly in the capital region. The greater attractiveness of Tallinn for investors could be related to the existence of infrastructure, easier access to talented workers, and other startups.
- This concentration could be also related to the impact of the previous functioning of Skype in Tallinn, which provided experience and capital and helped in the development of the entrepreneurial ecosystem. The former Skype employees have been perceived as the most important factor in the later evolution of EE's start-up ecosystem after the company exited the market. The so called "Skype Mafia" companies whose founders include ex-Skypers includes such companies as Transferwise and Taxify (now Bolt).

5. Finance-related policy measures

Financial instruments Estonia (MEUR)



- EE's strategy for HGEs focuses on three pillars: supporting growth of manufacturing (exporting) companies, developing start-up environment and supporting companies in three smart specialisation areas (information and communication technology, a sectors; health technologies and services; enhancement of resources).
- The main publicly supported financial instruments for HGEs in EE is the Enterprise development programme run by Enterprise Estonia. Over the years 2014-2020, EUR 73 million in total will be spent on grants to enterprises. Public support covers 35-45% of a supported project (max EUR 500,000 per company). This policy area is led by one agency, Enterprise Estonia, and is supported by some horizontal policy measures such as tax exemption of re-invested enterprise profits.
- Other publicly supported financial instruments for HGE are:
 - *Baltic Innovation Fund* via national promotional institution *KredEx* has since 2014 invested EUR 163 million into 33 companies; 56% of the fund is still to be invested (the fund covers all three Baltic countries); it is a Fund-of-Fund initiative launched by the EIF in close co-operation with the Governments of LT, LV and EE in 2012 to boost equity investments made into Baltic SMEs with high growth potential.
 - *EstFund* this EUR 60 million Fund-of-Funds initiative was launched by EIF in March 2016 in close co-operation with KredEx and the Estonian Ministry of Economic Affairs and Communications to stimulate equity investments into innovative and high growth-focused enterprises in Estonia. This fund has since 2018 invested 4 million euros into 9 companies; 93% of fund still to be invested
 - *SmartCap* (formerly Early Fund II) operates as a fund of funds and invests into ES VC funds, which in turn, together with private investors, invest into early-phase Estonian technology companies with high international

growth potential. The sole unitholder in Early Fund II is the Republic of EE. It has invested since 2014 EUR 14.4 million into 19 companies; under the *SmartCap* there is the *Superangel One* fund (Ärikiirendi SuperAngel) available, which started in 2018 with EUR 4.2 million from public funding, most of the fund still to be invested. The fund has a total of EUR 12 million. This business accelerator fund combines services to speed up SMEs growth with early stage risk capital investments. The fund helps 40-60 start-ups/scale-ups with high growth and export potential in the three smart specialisation areas (ICT, health technologies and services and efficient use of resources). The fund is managed by a private fund manager selected through a tender procedure.

- EE has two specific programmes to attract foreign investors in HGEs: start-up visa for non-EU entrepreneurs, (<https://www.startupestonia.ee/visa>) and the e-residency programme. The latter could be seen as attracting investors into HGEs as “e-residency enables digital entrepreneurs to start and manage an EU-based company online from anywhere in the world” (<https://e-resident.gov.ee>).

Annex: HGEs indicator framework details

Indicators	Details	Motivation
HGEs indicators		
HGE employment share	Percentage share of employees among HGEs in 50% 'most innovative' industries relative to total employment (EIS; 2018)	Measures contribution of HGEs to employment creation
HGE number share	Percentage share of HGEs of total enterprises with at least 10 employees (Eurostat; 2016)	Measures how many firms are HGEs
HGE average size	Average size of HGEs (employment definition); employees divided by number of HGEs (Eurostat; 2016)	Measures average size of HGEs, an indication for future job growth potential
SME innovators	Share of SMEs with product, process, marketing or organisational innovations or innovating in-house among all SMEs (EIS; 2018)	Existing SME innovativeness as predictor for future innovations
Financing HGEs indicators		
HGE availability of finance	Percentage of HGEs considering the availability of finance is not an investment barrier (EIBIS; 2016-2018)	HGEs access to finance is considered a precondition for the development of HGEs
Venture capital seed	Share of seed venture capital to GDP (Venture Source; 2017)	Venture capital is a relevant source of finance for potential HGEs
Venture capital start-up	Share of start-up venture capital to GDP (Venture Source; 2017)	Venture capital is a relevant source of finance for potential HGEs
Venture capital later stage	Share of later stage venture capital to GDP (Venture Source; 2017)	Venture capital is a relevant source of finance for potential HGEs
SME access to loans	EIF SME Access to Finance Sub-index for loans, comprising the use and cost of loans (EIF; 2018).	SME access to loans is an important framework condition indicating the access to loans for HGEs
SME access to equity	EIF SME Access to Finance Sub-index for equity, comprising use of equity and the sophistication of the equity market (EIF; 2018)	SME access to equity is an important framework condition indicating the access to equity for HGEs
HGEs framework conditions indicators		
HGE human capital	Percentage of HGEs considering the availability of staff with the right skills is not an investment barrier (EIBIS; 2016-2018)	HGEs access to human capital is essential for the development of HGEs
HGE labour market regulation	Percentage of HGEs considering the labour market regulation is not an investment barrier (EIBIS; 2016-2018)	HGEs may be constrained by existing labour market regulation
HGE business regulation and taxation	Percentage of HGEs considering the business regulation (e.g., licences, permits, bankruptcy) and taxation is not an investment barrier (EIBIS; 2016-2018)	HGEs may be constrained by existing business regulation
Entrepreneurial skills	Percentage of 18-64 population who believe to have the required skills and knowledge to start a business (GEM; 2018)	HGEs may require entrepreneurial spirit, skills and knowledge
Innovative entrepreneurship	Ratio between improvement-driven and necessity-driven entrepreneurship (EIS; 2018)	Countries with high relative prevalence of improvement-driven opportunity, and entrepreneurship tend to be primarily innovation-driven, thus conducive for HGEs
Linkages among SME innovators	Innovative SMEs collaborating with others, public-private co-publications and private co-funding of public R&D expenditures (EIS; 2018).	Quality of innovations increases with collaboration and provides information on sophistication of SME innovation ecosystem, thus related to HGEs.
Most innovative region	Relative performance of most advanced region in the Regional Innovation Scoreboard within each Member State vis-à-vis the best performing regions across all other Member States (RIS; 2017).	HGEs innovation ecosystems tend to be concentrated in most innovative regions/centres.

The European Commission's science and knowledge service

Joint Research Centre

JRC Mission

As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with independent evidence throughout the whole policy cycle.



EU Science Hub

ec.europa.eu/jrc



@EU_ScienceHub



EU Science Hub - Joint research Centre



EU Science, Research and Innovation



EU Science Hub

