

# Estonian startup ecosystem: Goes Deeper, Goes Tech!



**Oliver Ait**  
Commercial Counsellor  
Embassy of the Republic of Estonia in Japan

Estonian startup ecosystem has displayed a remarkable capacity for resilience in face of global challenges and turbulent times. Despite a reduction in the number and regularity of investments, likely due to the worldwide economic slump which has led investors to be more cautious, the sector has proven to be highly adaptable in responding to difficult situations. It appears as though crises are almost expected and welcomed within the local startup community. At the moment, Estonia has about 1460 startup companies and at least 14 of them were added in 2023. This has taken the country to Europe's top in number of unicorns and startup companies per capita. The largest sectors in terms of active startups are Business software & HR, FinTech and Consumer products & services, but there are new developments ahead.

## Deep Tech Startups

In order to remain at the cutting edge of global trends, Estonia has been backing startups that specialize in research and technology. With the world facing complex challenges, there is increasing attention being given to Deep Tech startups that utilize novel technologies to address different problems. To encourage the growth and emergence of such teams within Estonia, Startup Estonia and the Ministry of Economic Affairs and Communications of Estonia have created an action plan aimed at promoting startup entrepreneurship focused on research and technology, with the objective of positioning Estonia as a center of excellence for Deep Tech startups. Today, the Estonian Startup Database is home to 123 Deep Tech startups, which is a remarkable number that will probably rise in the future.

## Tartu – Innovative Smart City

In terms of developments regarding deep tech startups, the City of Tartu is at the forefront of innovation in Estonia, with

a startup-minded approach to shaping urban space and the possibilities of the community to contribute to the city's human-centered, sustainable, and innovative development. Tartu is a smart city from 1632, a year when the University of Tartu was established. Today, Tartu recognizes developing knowledge and science based entrepreneurship as their great opportunity, with the University of Tartu and other higher education institutions at the center of the city's plans. Students, academic staff, startup founders, business leaders, investors all together make Tartu the intellectual capital of Estonia. The city supports science-based entrepreneurship in all its strategic plans and has created a science-to-business system to encourage entrepreneurship in scholars by offering university pre-incubation programs.

Tartu is not just a hub for deep tech startups, it is also a city with a lively and distinctive cultural life and a green mindset. The solution-oriented thinking of the city and the community supports the continued growth of the local technology sector, but also provides a very liveable environment for people of all walks of life. It also hosts one of the coolest startup related events called sTARTUp Day that takes place every year. The event has also become quite popular amongst Japanese visitors, corporations and VCs. In addition, the City of Tartu



City of Tartu (Photo by Ragnar Vutt)



sSTARTUp Day held in March 2023

with its deep tech startups also participated City Tech Tokyo that was held in Tokyo in February. The experience was very rewarding and many valuable contacts were made between the Japanese and Estonian stakeholders. Keep an eye on Estonian startups and the City of Tartu, as it is quite likely that the next unicorn company will be born there.

#### LightCode Photonics

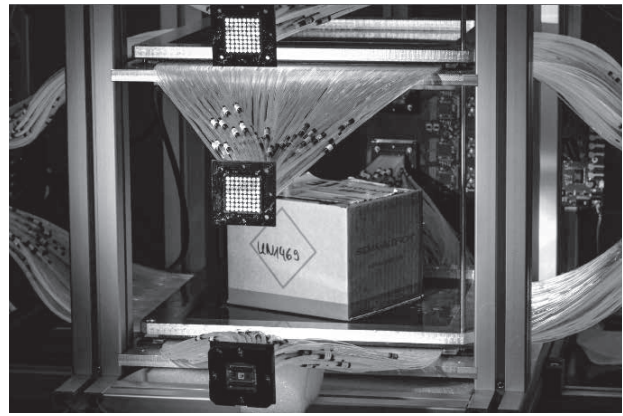
<https://www.lightcodephotonics.com/>

Let me give a few examples. One of the startups that emerged from the University of Tartu is LightCode Photonics, a company that is developing a software-defined camera that is resolving fundamental technical problems in 3D imaging. Their direct time-of-flight (dToF) 3D-camera utilizes a novel intelligent perception approach to obtain 3D images, empowering low-resolution detectors without mechanical scanning. They obtain images with lateral resolution several orders of magnitude higher than the native pixel count of the detector and produce innovative 3D cameras that could transform how robots perceive the world. LightCode Photonics aims at a market leader position in the 3D imaging and sensing market and is currently looking for partners and investors in Japan.

#### GScan

<https://www.gscan.eu/>

Another startup based in Tartu is GScan. The company is using natural radiation and AI to detect materials and distress in critical infrastructure and is looking to revolutionise scanning industry in airports and international borders for example. GScan is building one of the first muon tomography 3D scanners in the world with a patent for their detection



muonFLUX™ tomograph prototype

algorithm. They are far ahead of their competitors by having their precise detector-building robotic line ready and in production. GScan has strong business relations with Japanese companies Kuraray and Hamamatsu Photonics and the company has patented their technology in Japan.

Although the global economic downturn has led to a decrease in investment, the Estonian startup ecosystem remains resilient, adaptable, and expanding. While the challenges are serious, Estonian founders have been able to listen to the global trends and keep their focus on practical solutions and frugal management style, making the ecosystem as resilient as ever. Estonia's focus on deep tech startups and Tartu's supportive startup ecosystem have created an environment that encourages innovation and entrepreneurship. LightCode Photonics and Gscan are just two examples of the many startups that have emerged from Tartu and are making an impact in their respective industries. As the world faces new challenges, it is essential to have startups that are working on innovative solutions to complex problems. Estonia's startup ecosystem and the City of Tartu are proving to be resilient, adaptable, and forward-thinking, making them a great place to start a business.



#### お問い合わせ

JOI 事業企画部  
bd@joi.or.jp

駐日エストニア共和国大使館  
Oliver Ait, Commercial Counsellor  
E-mail: oliver.ait@mfa.ee  
<https://tokyo.mfa.ee/>