Journal of Infrastructure, Policy and Development 2024, 8(9), 7000.
https://doi.org/10.24294/jipd.v8i9.7000

Article

Trends in the development of startup infrastructures in Ukraine, Latvia and Georgia

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CITATION

Simakhova A, Menshikov V, Ruza O, Nikolaiev K. (2024). Trends in the development of startup infrastructures in Ukraine, Latvia and Georgia. Journal of Infrastructure, Policy and Development. 8(9): 7000. https://doi.org/10.24294/jipd.v8i9.7000

ARTICLE INFO

Received: 8 June 2024
Accepted: 6 August 2024
Available online: 9 September 2024

Abstract: The article is dedicated to analyzing trends in the development of startup infrastructure in Ukraine, Latvia and Georgia. The article is based on concrete data, a comprehensive analysis of statistical and qualitative data on the development of startups in Ukraine, Latvia and Georgia. This provides a reliable basis for the arguments and conclusions. General patterns of startup infrastructure development in the three countries were identified. A PEST analysis of startup infrastructure development in Ukraine, Latvia and Georgia was conducted. Thus, the authors conduct a multidisciplinary analysis that includes not only economic, but also social and technological aspects of startup ecosystems and infrastructures. Suggestions for improving the startup infrastructure in these countries were developed.

Keywords: startup; infrastructure; accelerator; incubator; social; Latvia; Georgia; Ukraine

1. Introduction

In the modern world, the economic and social importance of startups is quite high. The terms “startup ecosystem” and “startup infrastructures” are often used in the context of discussing startup development and support. But both terms reflect slightly different aspects. For example, the startup ecosystem describes a broad set of interacting actors and factors that contribute to the birth, growth and development of startups. The ecosystem also includes cultural and social aspects that facilitate or, conversely, hinder entrepreneurial activity. Compared to the “startup ecosystem”, the term “startup infrastructures” usually refers to more specific, often material or organizational resources that support the functioning of startups.

Accelerators, business incubators, technology parks and co-working spaces can be seen as important elements of the external infrastructure of the startup ecosystem. They perform several critical functions in supporting and developing startups, making them organizational structures that play a key role in these ecosystems. The role of startup infrastructure is as follows:

1) All these institutions provide organizational support to startups, helping them in various aspects of business, from providing workspace to access to equipment and technology.
2) They create an environment that fosters networking and knowledge sharing. It is vital for young companies looking to expand their business connections and interact with investors, potential customers and other startups.
3) They often offer training programs, workshops and seminars that are essential to developing the skills and competencies of entrepreneurs. This includes

everything from basic business skills to specialized knowledge in technology and innovation.

4) Incubators and accelerators often offer financial support in the form of seed investment and help in raising additional funding from venture capitalists or angel investors.
5) Techno parks and specialized incubators typically focus on specific technology or scientific areas, which helps foster deeper research and innovative product development.

Incorporating all these elements into the startup ecosystem helps to create an enabling environment that not only supports the current needs of startups, but also ensures their sustainability and growth on a long-term basis. These structures, acting as part of the external infrastructure, primarily as organizational strengths and tools, contribute to a strong and effective ecosystem that can support startups at all stages of their development for these key reasons:

1) In the startup ecosystem, these institutions act as direct supportive elements, providing resources, mentorship, educational programs, and networking opportunities. They help startups grow, develop and achieve commercial success.
2) At the same time, they are part of the external infrastructure as they create the conditions and framework for startups to develop. They interact with the wider economic, social and political systems, including government agencies, educational institutions and private companies. These institutions also help shape policies, regulation and support for innovation at regional and national levels.
3) As organizational structures, they provide governance, coordination, and resource direction that is critical to maintaining the sustainability and efficiency of the ecosystem. They serve as bridges between startups and a wide range of external stakeholders such as investors, mentors, customers and other business partners.

Infrastructure is thus a component of the ecosystem, providing the necessary foundation for startups to grow. This is a narrower term, but nevertheless to analyze and compare startup development in Ukraine, Georgia, Latvia, we believe it is necessary to focus on startup-infrastructure to assess further potential of the three countries for startup development.

The aim of the article is to assess trends in startup infrastructure development in Ukraine, Latvia and Georgia.

2. Materials and methods

To achieve the goal of the article we used general scientific methods of data analysis and synthesis, method of comparison and systematization of information and data, as well as PEST-analysis of startup infrastructure in Ukraine, Latvia and Georgia. The PEST analysis included an assessment of political, economic, social and technological factors of startup infrastructural development in Georgia, Latvia and Ukraine. As political factors, the political positions of the countries in the world arena (war in Ukraine, European integration, etc.) were analyzed. The economic

indicators for the PEST analysis were GDP growth and venture capital investment in the countries. As a social factor, the entrepreneurial culture of the three countries and its readiness for startups was considered. The technological indicators were the number of startups, the Global Innovation Index, high-tech exports, and the population's access to a safe Internet.

The information base of the study was made up of scientific articles, conference materials, Internet sources. The statistical base of the study was made up of the World Bank, WIPO and IMF data on Georgia, Ukraine and Latvia, as well as Internet resources with data on the startup infrastructure of the countries.

The statistical analysis method was used to analyze previous publications on the topic. The authors analyzed the statistics of the number of articles by country in the Scopus database, which were prepared on the topic of startup infrastructures.

Analysis of previous studies. The study of startup-infrastructures in separate scientific works concerning three countries - Ukraine, Georgia, Latvia - was carried out by such authors as: Absadze and Burduli (2019), Bikse et al. (2018), Dorosh-Kizym and Dorosh (2022), Murjikneli (2022), Rutitis and Volkova (2019). The authors examined the development of startup and innovation infrastructure separately in Georgia, Latvia and Ukraine. A comprehensive study for the three countries is missing. This article compares and summarizes startup infrastructure development trends for Ukraine, Latvia and Georgia. First, let us take a closer look at the research articles by the authors of these three countries.

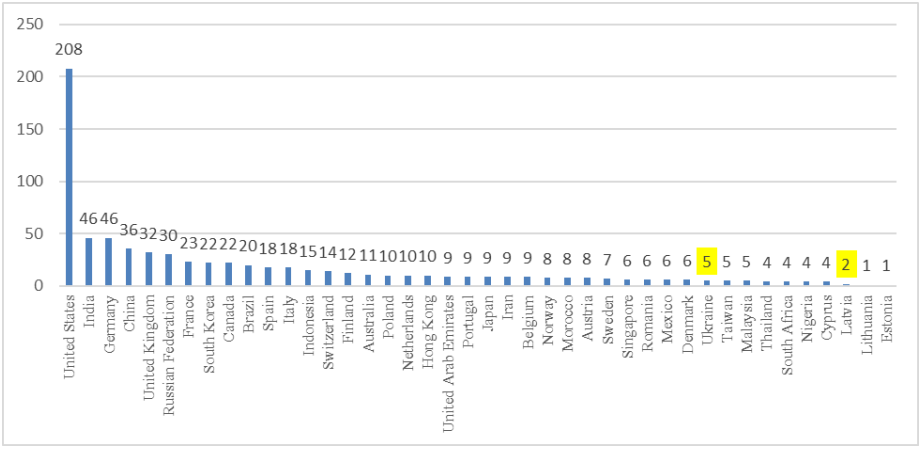

Figure 1. Number of papers (by country) that contain the words "Infrastructure of startup" in the title, abstract, or keywords in the Scopus database.
Source: Elaborated by the authors based on SCOPUS database.

The results presented in **Figures 1** and **2** confirm the high interest of researchers from different scientific fields in the topic "Startup Infrastructure". Publications indexed in the Scopus database increased particularly sharply in 2021, 2022, 2023, the number of such publications increased by 289 % compared to 2010 and reached 74.

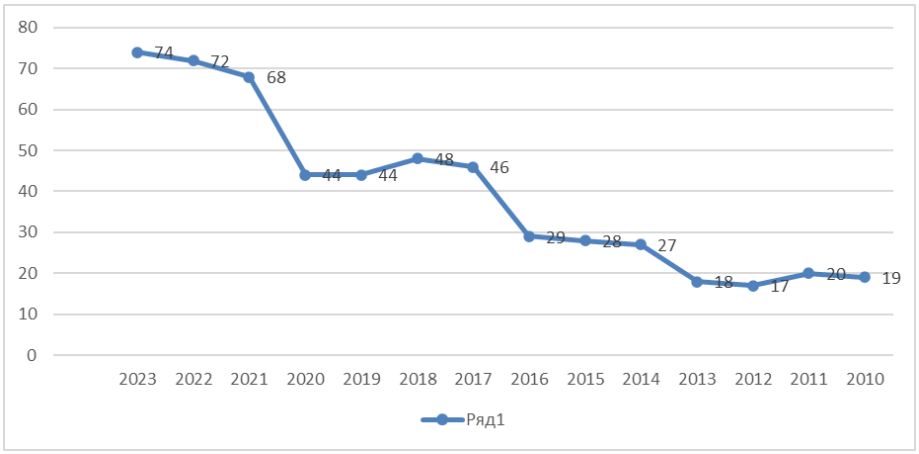

Figure 2. Number of papers (by year) that contain the words "Startup Ecosystems" in the title, abstract, or keywords in the Scopus database from 2014 to 2023.
Source: Elaborated by the authors based on SCOPUS database.

We find interest and attention of Latvian researchers to start-ups only since 2018, when an article by well-known authors "Innovative start-ups: challenges and development opportunities in Latvia" (Bikse et al. 2018) was published to identify challenges and opportunities for the development of innovative start-ups in Latvia. The results of the authors' research showed that the creation of startup enterprises in Latvia led to positive results and gave an impetus to the increase in economic activity, as there were necessary prerequisites for their development. Later, researchers Ratanova and Vorončuka (2021) explain the leading role of startups in the EU economy and analyze the innovative development of small and medium-sized enterprises in Latvia. Researchers Prohorovs et al. (2019) identified the factors that startup owners consider most important for attracting seed venture capital investments when founders of 40 startups were interviewed. Researcher Vonoga (2023) published an analysis of the results of an expert survey of startups in Latvia, as well as a research paper report on the nature of startups both from a theoretical perspective and analyzing a survey of the Latvian population (Vanaga et al., 2023).

Researchers in Georgia are also showing some interest in the problem of startups. Thus, in 2015, Papiashvili et al. published the results of their study of university students who mastered business education on their willingness to participate in startups. Koberidze published the results of their study of university students who mastered business education on their desire to prove themselves in practice, including the creation of startups. (Papiashviliet al., 2015). In 2022, the same authors published an article where they consider theoretical aspects of modeling information support of a startup in sufficient detail (Papiashvili et al., 2022). Makasarashvili et al. (2022) also published an article on the directions of development of innovative startup system in pandemic Georgia.

Notable attention to the problem of startups is also paid by researchers in Ukraine. In 2019, an article by Lytvyn (2019) was published, where the history of formation and development of domestic innovation infrastructure in terms of creating an ecosystem of startups is studied, the essence of the concepts of "business incubator" and "business accelerator" is outlined. Justification of the important role of the startup market is also devoted to the work of a group of Kyiv researchers

published in 2020 (Ivanchenko et al., 2020). Researcher Fedorov (2021) notes that at this stage of business development there is a significant rise in the development of Ukrainian startups, which develop quite quickly and have many users. Researchers Skopyk and Nedoshitko (2021), as if in continuation of the previous work, studied the sources of funding for startups in 2021. Duma and Zavtura (2021) in their research paper "Startup ecosystem in Europe: best practices and lessons for Ukraine" examine the European experience in the development of startup ecosystems. Over the last decade, the Ukrainian startup ecosystem has grown and "matured" significantly, which has allowed Ukraine to be stable in the technological sphere in the face of today's challenge—Dorosh-Kizym and Dorosh (2022). The article by Antoniuk and Antoniuk (2023) substantiates the conceptual directions for improving Ukraine's startup ecosystem at the stage of its post-war recovery, namely: stimulating innovation and creating a favorable institutional environment, fostering a culture of entrepreneurship, particularly among young people, and improving the institutional environment.

According to our analysis of scientific articles on the topic of startups in Latvia, Georgia and Ukraine, we do not find a single study devoted to startup infrastructure. At the same time, it is important to note that some elements of startup infrastructures have not been overlooked by researchers from the three countries.

3. Results and discussion

The infrastructure of startups includes various elements that support and facilitate their growth and development. Three main types of infrastructure can be distinguished: physical, organizational and financial.

The physical infrastructure of startups encompasses the physical and technological resources needed to support their operations. It includes:

- office spaces and co-working spaces: places where teams can work and collaborate. These can be co-working spaces that offer flexible lease terms and the necessary infrastructure such as internet, conference rooms, breakout areas;
- techno parks and business incubators: specialized institutions that provide space as well as access to laboratory and technical equipment;
- access to logistics and production facilities: for startups involved in the production of goods, it is important to have accessible production facilities and logistics centers.
- Organizational infrastructure includes management, support, training and networking systems that help startups grow and develop. Key aspects of it:
- incubators and accelerators: programs that provide mentorship, training and support for early stage startups;
- educational programs: trainings, seminars, courses and other educational initiatives aimed at improving entrepreneurial and technical skills;
- networks and associations: professional networks that facilitate interaction with investors, other entrepreneurs and potential customers;
- legal and administrative support: assistance with company registration, intellectual property protection, tax planning and compliance.

Financial infrastructure provides startups with the resources they need to launch

and scale. This includes:

- venture capital funding: investments from venture capital funds that provide capital in exchange for a stake in the company;
- public funding: grants, subsidies and other forms of support from the government;
- crowdfunding: platforms that raise funds directly from users or interested parties via the internet;
- lending and banking: loans, lines of credit and other banking products specifically designed for startups and small businesses.

The effectiveness of startup infrastructure can be measured by various indicators (**Table 1**), including the following:

1) Number of startups: an increase in the number of new startups may indicate a favorable infrastructure that supports entrepreneurship. According to global statistics, there are 377 startups in Ukraine, 102 in Latvia, and 30 in Georgia (Startupranking, 2024).

2) The volume of investment in startups and venture capital. It is an important indicator of infrastructure efficiency. Successful startups attract investments, which contributes to their growth and development.

3) Quality of mentorship: quality support and mentorship from experienced entrepreneurs and investors help startups avoid mistakes and grow faster. This can be measured, for example, by the number of successful markets launches or the level of satisfaction of mentorship program participants.

4) Level of participation in international events and communities: the participation of startups from the country in international conferences, exhibitions, competitions and other events indicates their global visibility and competitiveness.

5) Number of successful markets exits: this includes mergers, acquisitions and IPOs (initial public offerings) of startups. Successful exits create a favorable impression of the investment climate and stimulate new investment and innovation.

6) Job creation and economic growth: an effective startup infrastructure contributes to job creation and stimulates economic growth through innovation, increased productivity and expanded markets.

Table 1. Indicators of assessment of startup infrastructure in Ukraine, Latvia and Georgia.

Indicators	Ukraine	Latvia	Georgia
Number of startups	377	102	30
Venture capital investments, mln USD	51	9	8
Global Innovation Index, rank	57	41	74
Hight-technology exports, % of manufactured exports	6	16	3
Secure Internet servers per 1 million people	20,329	8937	3497
GDP growth, %	3.2	1.7	5.7

Sources: Startupranking, 2024; Dealroom, 2024; WIPO, 2022; World Bank, 2022; World Bank, 2020; IMF, 2024.

These indicators combined can give an indication of how successful the startup infrastructure is in a particular region or country. As we can see, Georgia lags far

behind Ukraine and Latvia in terms of the number of startups. Also, Georgia lags Ukraine and Latvia in other indicators of startup infrastructure development, except for GDP growth (Georgia is leading by this indicator in 2024). Latvia is leading in Global Innovation Index, high-tech exports, and provision of safe Internet to the population. Ukraine is the leader among the three countries under consideration in terms of the number of startups and the volume of venture capital investments. Let's look at the main examples of startup infrastructures in Ukraine, Latvia and Georgia. Let's start with Ukraine.

Ukrainian startup infrastructure is represented by a certain set of accelerators and incubators of global scale. Despite the war, Ukraine's startup infrastructure is developing.

The most well-known accelerators and incubators in Ukraine are (Woszczyk, 2023):

The 1991 Open Data Incubator. This incubator serves as a dynamic hub for the tech community, dedicated to advancing the nation's comprehensive growth and prosperity. This incubator serves an important social function of teaching aspiring entrepreneurs how to run their businesses effectively. It has a few important FinTech programs in cooperation with the National Bank of Ukraine and other financial institutions. This incubator has 22 programs that support 176 startups (about $1.8 million in grants and investments). It is located in Kyiv, Dnipro and Ivano-Frankivsk, and has a center in Mariupol;

ISE Group is focused on fostering partnerships among various stakeholders. One of the incubator's activities is the promotion of businesses run by women, 30% of the startups that are supported are run by women. The approach to each startup is individual, with a separate action plan and mentorship. Mentorship is a cornerstone of ISE Group's offerings. Startups gain access to a network of mentors with expertise spanning multiple domains, providing valuable guidance. Technical support is also readily available, covering eight key areas, and the program facilitates top-profile networking, fostering connections that can propel startups to new heights. The incubator has influenced the successful development of more than 350 startups;

FeelGoodLabs is a business accelerator that combines practical training and expert mentorship. One of the accelerator's significant strengths lies in its preparation of participants for investment and grant-seeking. This aspect encompasses training on document preparation, application submission, and honing presentation skills, equipping entrepreneurs with the tools they need to secure funding successfully;

D3 Defense Accelerator aimed at developing military technologies and attracting business to this sphere. It is especially relevant in war conditions. The main directions of the accelerator are startups in the field of military technologies, cybersecurity, artificial intelligence;

YEP is an incubator where more than 500 startups have been incubated since 2016. YEP is actively involved in shaping entrepreneurship education at 95 universities across the country, impacting more than 3000 students each semester;

Ukrainian Future Business Incubator - a vital platform in Ukraine's entrepreneurial landscape, poised to transform innovative ideas into robust business models;

Vacuum Deep Tech Acceleration - a collaboration between Home of Startups Accelerator, Sampo Accelerator, YEP, and strategic partners, and stands out for its focus on systematically responsible business growth rather than just chasing investment rounds;

SILab Ukraine aimed promoting social entrepreneurship and innovation, emphasizing personal social responsibility within Ukrainian society. They actively work with two key tools: social entrepreneurship and social innovations. Social startups are especially relevant in the development of Ukraine. The incubator has launched 23 social enterprises.

There are also other accelerators and incubators, the analysis shows a relatively developed startup infrastructure in Ukraine.

Moving from Ukraine's startup infrastructure to Latvia's startup infrastructure, it should be noted that the startup infrastructure in Latvia is quite developed. Today, the Latvian startup infrastructure boasts over 400 active startups, an array of institutional investors and business angels, a diverse selection of modern co-working spaces, numerous incubators backed by government, academia, and private entities, as well as a bustling calendar packed with engaging gatherings, productive conferences, hackathons, and meetups. Notably, Latvia has introduced a distinctive Startup Law and offers a Startup Visa, or officially a temporary residence permit, to those looking to initiate their startup journey in the country.

Riga annually hosts a series of Tech and Innovation conferences, including the Digital Freedom Festival, Deep Tech Atelier, and TechChill (Investinlatvia, 2024).

The most influential accelerator incubators in Latvia are (Potępa, 2022):

- Commercialization Reactor is a Latvian platform that aims to commercialize businesses and help them get to market by transforming innovations into profitable businesses;
- Buildit is an accelerator for IoT and hardware startups, turning ideas into attractive, market-worthy businesses;
- EIT Urban Mobility Incubator - targeting startups to transform urban mobility that will positively impact the environment and climate. Businesses that undergo incubation can receive up to 6 thousand euros of pilot funding;
- UL Student Business Incubator - founded by the University of Latvia for student entrepreneurship. Each startup receives a grant of 1800 euros.

Unlike Ukraine and Latvia, there are certain advantages for the development of startups in Georgia. They are the ease and speed of opening a business (on the day of registration and loyal taxes). Emphasis is placed on the development of startups by young people.

Active investors in Georgia's startup infrastructure (Choladze, 2024):

- Bank of Georgia offers business loans, micro loans, agro loans and a program for the successful realization of women's businesses in Georgia.
- Credo bank.
- Crystal: local micro-finance organization that promotes the development of micro and small business sectors in Georgia.
- ProCredit Bank finances small and medium-sized businesses that have a long-term development plan.

In Georgia, startup infrastructure is developed in such cities as Tbilisi, Kutaisi,

Batumi, Telavi. The best-known incubators in Georgia are the following 4 incubators and accelerators (Liman, 2024):

1) Impact Hub Tbilisi. It helps entrepreneurs with an idea to find an investor. It is a co-working space and communication center in Tbilisi. It consists of entrepreneurs, freelancers, activists, professionals from different fields. The incubator organizes different meetings, workshops, events for learning, growth and communication of budding entrepreneurs with each other.

2) Touch Platform. Aimed at budding startups with a team. It offers member services and programs. It connects urban and rural startups through promoting technology and ensuring equal opportunities for all. Their incubator program provides a nurturing environment for startups to gain mentorship, guidance, and networking opportunities, while their accelerator programs are designed to accelerate the growth of established startups by providing intensive support, strategic guidance, and access to a large network of investors and industry experts.

3) Startup Büro isaimed at budding startups with a team. It works with the private and public sector to successfully develop the country's startups. It is an accelerator that organizes various hackathons, pre-acceleration programs, trainings, workshops, etc. At the pre-acceleration program, Startup Büro assists budding entrepreneurs in refining their company concepts and developing a solid foundation for their enterprises through mentoring and assistance.

4) 500 Georgia isaimed at budding startups with a team. The 500 Global Accelerator Program in Georgia is part of the renowned 500 Startups Incubator. This program provides a one-of-a-kind opportunity for startups in the EECCA (Eastern Europe, Caucasus, and Central Asia) region to grow their businesses. The accelerator helps in mentoring, training and support to startups.

Thus, having considered specific examples of startup infrastructure in the three countries, we can conclude. Ukraine, Latvia and Georgia have certain trends in the development of infrastructure for startups:

1) Ukraine:
   - IT sector: Ukraine has become a well-known IT hub in recent years. Kiev, Lviv and Kharkiv are the main centers of the IT industry in the country. This attracts startups in software development, technology and internet business.
   - investments: the Ukrainian startup market has seen an increase in investments, including from international venture capital funds and investors.
   - support initiatives: Ukrainian authorities are taking steps to support the startup ecosystem, including the creation of innovation parks, accelerators and funding programs;
   - startups on military and social topics are developing in the context of war (Simakhova, 2022).
2) Latvia:
   - FinTech: Riga has become a center for financial and information technology development. Financial technology (FinTech) startups are actively developing here (Baltgailis and Simakhova, 2022).
   - Incubators and accelerators: Latvia has a number of incubators and

accelerators that help startups with funding, mentoring and access to resources;

- development of student startups through business cooperation with universities (Menshikov and Ruza, 2024; Voronov et al., 2023).

3) Georgia:
   - Tourism and hospitality: the country is actively developing startups in the tourism and hospitality sector. This includes the development of apps for booking accommodation, transportation and tours;
   - support ecosystem: Georgia is beginning to build infrastructure to support startups, including the creation of incubators, co-working spaces and entrepreneurship support programs.

4. Discussion

Table 2. PEST analysis of startup infrastructure development in Ukraine, Georgia and Latvia.

P (Politics)	**E (Economics)**
Ukraine: ● war in the country and unstable political situation, which affects the business environment and investment climate; ● adoption of legislation that promotes startups may also be uneven due to the war. Georgia: ● Georgia is known for its efforts in attracting foreign investment and the startup sector may receive support from the government; ● openness to foreign investors and a desire to improve the business climate favor the development of startups. Latvia: ● Latvia is a member of the European Union, which may provide additional access to various financial instruments and support programs for startups; ● political stability and progressive legislation contribute to the development of the entrepreneurial environment.	Ukraine: ● low operating costs may attract foreign startups to develop in Ukraine; ● economic instability and high levels of corruption may be an obstacle to investment and startup development; ● GDP growth in 2024 is 3.2%; ● venture capital investments – 51 mln USD Georgia: ● growing economy (GDP growth in 2024 is 5.7%) and low tax rates may create a favorable environment for startups; ● uneven distribution of wealth and infrastructure constraints may limit access to resources for startups; ● venture capital investments – 8 mln USD. Latvia: ● Latvia has a stable economy (GDP growth in 2024 is 1.7%) and diverse opportunities for startups in various sectors; ● high tax rates and competition with more developed startup ecosystems may present challenges; ● venture capital investments – 9 mln USD.
S (Social factors)	**T (Technology)**
Ukraine: ● A large number of IT specialists and technically educated personnel can contribute to the development of technology startups, but predominantly these specialists left the country during the war; ● cultural differences and lack of a developed entrepreneurial culture may slow down the development of startups. Georgia: ● Georgian entrepreneurial culture can stimulate the development of startups; ● low levels of technical literacy and access to education in some areas may be a challenge.	Ukraine: ● Ukraine has a strong IT community and access to technical resources (20.3 secure Internet servers per 1 mln people), which facilitates the development of technology startups. Number of startups—377. Global Innovation Index rank is 57; ● infrastructural constraints and uneven distribution of access to technology can create barriers. Georgia: ● The technology sector in Georgia is starting to develop and the government is actively supporting innovation. Number of startups—30; ● insufficient infrastructure (3.5 secure Internet servers per 1 mln people) and limited access to finance may hinder the growth of technology startups. Global Innovation Index rank is 74.

Table 2. (*Continued*).

P (Politics)	E (Economics)
Latvia: ● Latvian culture is generally favorable to entrepreneurship and innovation; ● the limited domestic market can and already is forcing startups to look for markets outside the country.	Latvia: ● Latvia has a well-developed IT infrastructure and access to technical resources (8.9 secure Internet servers per 1 mln people). Number of startups – 102. Global Innovation Index rank is 41; ● competition in the technology market may be high and startups may face and are already visibly facing challenges in attracting talent and investment.

Source: **Table 1**.

A common trend across all three countries is that they are seeking to create an enabling environment for startups, including by facilitating access to finance, supporting innovation, and providing the necessary infrastructure for business development (**Table 2**).

In general, all three countries have potential for startup infrastructure development, but each of them faces unique challenges and opportunities that may affect its development.

Cooperation between Ukraine, Latvia and Georgia in the field of startup infrastructure development is relevant.

Future research directions will be the investigation of several cases of startup development in Geogia, Uaine and Lavia.

5. Conclusion

In summary, Georgia, Ukraine and Latvia are striving to create effective startup infrastructures, with a significant role for youth startups.

For further successful development of startup infrastructure in Ukraine, Latvia and Georgia, the following recommendations for each country can be offered. So, for Ukraine:

1) Increasing the availability of funding from the side of government, local authorities and business:

- creation and support of public and private investment funds, provision of tax incentives and grants for startups (scaling initiatives such as The 1991 Open Data Incubator discussed above. It is an incubator that provides grant support to 176 startups in Ukraine);
- development of crowdfunding and venture capital mechanisms to attract investments. A successful case study for Ukraine here is the United States, which is one of the leaders in crowdfunding thanks to platforms such as Kickstarter, Indiegogo, and GoFundMe. Successful campaigns on these platforms often depend on effective marketing, transparency, and a clear strategy. American startups use crowdfunding not only to raise capital, but also to test the market and get feedback from potential customers. Ukraine can cooperate with these platforms.

2) Development of social startups and startups of veterans in postwar period. Ukraine already has an example of a social startup such as SILab Ukraine, and in the postwar period, such startups will need to be scaled up.

3) Development of technical infrastructure:

- increasing the availability of broadband internet and developing digital infrastructure to support technology startups. It is important to attract technical assistance from Ukraine's more developed partners;
- supporting and developing research centers and entrepreneurial universities to stimulate innovation. Creating clusters of universities and businesses. In this aspect, the experience of Latvia's UL Student Business Incubator, which was described earlier, is useful for Ukraine.

The main obstacle to the implementation of the proposed recommendations by the state, local authorities and business is the war in Ukraine and the limited state budget, which is allocated for military operations. Thus, it is important to attract foreign investors to build the country's stratospheric infrastructure, which can be done now.

For Latvian government:

1) Development of crowdfunding and venture capital mechanisms to attract investments. In addition to the previously mentioned US experience in this area, the UK also has successful examples of crowdfunding, in particular through the Seedrs and Crowdcube platforms, which specialize in equity crowdfunding. This allows investors to get a stake in startups, which increases their motivation to support projects. British startups often focus on creating a solid business plan and attracting professional mentors.

2) Community building, that can share innovations, knowledge resources and support (local meetings, forums, online events, collaborative projects etc.).

3) Improving the business climate. Adoption of legislative and administrative measures to simplify business registration and licensing procedures. Latvia can use the experience of Estonia. Estonia is known for its electronic residence (e-Residency) and ease of doing business. The e-Residency allows foreigners to access Estonian public services, including the possibility of opening a company online. The entire company registration procedure can be completed online in a few hours. The use of electronic signatures for signing all documents greatly simplifies administrative procedures.

In our opinion, all of the proposed recommendations for Latvia can be implemented in the short term and become a roadmap for the development of startups in the country.

For Georgian government:

1) Creation of supporting infrastructure:
   - development of incubators, accelerators and technology parks to provide startups with access to office space, equipment and mentorship (scaling up the experience of the Georgian accelerator 500 Georgia, which was described earlier.);
   - improving the availability of co-working and innovation centers for cooperation and exchange of experience (in this aspect the experience of Impact Hub Tbilisi can be used).
2) Stimulating the development of entrepreneurial culture:
   - Conducting educational programs and events to develop entrepreneurship and innovation skills;

- support and popularization of successful startup cases, creation of a positive image and brand of an entrepreneur 3. Government and institutional support: policy support and public-private partnership. Georgia could benefit from the UK's experience with various initiatives to support startups: Online Company Formation (the possibility of registering a company online through Companies House), Seed Enterprise Investment Scheme (SEIS - tax support for investors in startups), Business Support Helplines (telephone lines and online consultations for entrepreneurs).

In our opinion, the proposed recommendations for Georgia can be implemented in the short term, provided that technical and advisory assistance from developed countries, such as the UK, is provided.

International cooperation is important for three countries:

- creating international exchange and internship programs to attract foreign specialists and develop international expertise;
- assistance in establishing partnerships and networking with international investors, universities and companies;
- supporting exports of startups to global markets and creating conditions for international growth.

The application of these measures will help create a more favorable environment for the development of startup infrastructure in Ukraine, Latvia and Georgia, contributing to their economic and innovative development.

Author contributions: Conceptualization, AS and VM; methodology, AS, VM and OR; software, AS; validation, AS, VM and KN, formal analysis, OR and KN; investigation AS and VM; resources, VM and OR; data curation, AS and KN; writing—original draft preparation, AS; writing—review and editing, VM; visualization, AS; supervision, VM; project administration, OR; funding acquisition OR. All authors have read and agreed to the published version of the manuscript.

Conflict of interest: The authors declare no conflict of interest.

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