

Project "UnicornQuest"

Designing, sharing and replicating policy tools for Unicorn forests



Forest Assessment

Evaluating Ecosystems with the Capacity to Attract and Retain Unicorns in Zemgale region, under EU Principles and Values, Focusing on Green and Technological Innovation

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1. Summary

The main purpose of the regional analysis is, first of all, to identify and analyze the factors that contribute to the development of the ecosystem of unicorns (startup companies valued at over 1 billion USD) (hereinafter – *Unicorns*) in the Zemgale region, Latvia. The study includes an analysis of the regional ecosystem, an overview of the number of startups and sectors, an examination of the situation of policy instruments and the development of recommendations based on the best examples from the European Union (EU).

Secondly, the purpose of the analysis is to recognize bottlenecks and obstacles that hinder the development of a *Unicorn*-friendly ecosystem in the Zemgale region, to identify where public strategies and/or policies are lacking, as well as to spot improvements and possible solutions, and to identify the need for existing policy instruments and systemic support in the Zemgale region.

Based on the quantitative research, carried out during the research, as well as on comparative analysis, analysis of examples of startups and *Unicorns*, structured written express interviews with participants of the startup/*Unicorn* ecosystem, analysis of examples of good practice in Latvia and the ZPR, and on the results of mapping participants/stakeholders of the startup ecosystem, the essential prerequisites have been determined for successful development of the startup ecosystem, the factors stated hindering development and recommendations worked out for the promotion of the startup/*Unicorn* ecosystem development.

Regional analysis is the basic document and the main source of information for a comprehensive comparative study, which will provide an overview of the current situation in Latvia in the context of other partner countries of the project.

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2. Glossary

Startup: a capital company with high growth potential, whose core activity is related to the development, production or development of scalable business models and innovative products (Jaunuzņēmumu darbības atbalsta likums).

Soonicorn: A startup that is likely to become a *Unicorn* in the near future. Such companies tend to grow rapidly and attract significant investor interest.

Unicorn: A privately held startup valued at over \$1 billion.

Startup Ecosystem: a network of resources formed by startups at different stages, investors, various types of institutions and organizations in a specific location (physical and/or virtual), interacting as a system to create an environment for startups to develop.

Scalability: company's ability to adapt and expand its operations in response to market changes or growth opportunities, including an increase in its operational efficiency.

Innovation: implementation of new scientific, technical, social, cultural or other ideas, developments and technologies in a product or service (Zinātniskās darbības likums).

Incubator: business incubation is a public and/or private entrepreneurial, economic and social development process designed to support companies from idea generation to startups and help them build and accelerate growth and success through a comprehensive business support program (Zinātniskās darbības likums).

Accelerator: a program that provides startups with access to mentoring, investors and other support to help them become stable and self-sustaining and accelerate their growth.

Business Angel: an individual, usually with a business background, who invests a portion of their assets directly in new and growing private companies but is not involved in their management (European Commission).

Venture capital (VC): a long-term investment in the company's equity with the intention of increasing the company's value by financing its faster growth and development. The main difference between venture capital and other forms of business financing is that the investor becomes a business partner with whom both risks and profits are shared (Latvijas Privātā un lespējkapitāla asociācija).

Seed funding: funding intended for the implementation of a new business idea – the creation of an innovative product that would be radically new, patentable, with the potential for rapid growth and export. Seed funding is primarily allocated for prototype/product development, patenting, market and business strategy development, technology validation and testing, as well as for attracting experienced consultants, specialists and professional management.

Series A, B, C funding: Funding rounds that typically follow "seed funding" and "angel investment" by providing outside investors with the opportunity to invest money in a growing company in exchange for equity or partial ownership. Series A, B and C funding rounds are each a separate fundraising event (Investopedia).

Equity: funds that the members of the company put at the company's disposal for an unlimited period of time without compensation, as well as the increase in funds (profit) obtained as a result of the company's operation.

Intellectual property: the right to individual performance results of human mind that have an intangible value. Intellectual property does not protect ideas as such, in their absolute sense, but the specific expression of ideas (copyright) or the practical application of ideas (knowledge, information) in useful products. Intellectual property rights are divided into two groups: industrial property rights and copyright.

Market fit: product/market fit means being in the market with a product that can satisfy that market (Marc Andreesen Product/Market Fit). In other words, matching the company's product with the needs of the target customers (Harvard Business School Online).

Crowdfunding: a type of collective cooperation, whereby individuals voluntarily, in most cases using the Internet environment, pool their financial or other resources to support other people or organizations, most often receiving a material reward.

Analyzing the concepts, it can be concluded that only certain concepts related to startup and *Unicorn* culture have precise explanations in the regulatory acts of Latvia. Most concepts have different and inconsistent explanations in various Latvian and international information sources.

3. Abbreviations

ALTUM – State Development Financial Institution ALTUM

EDIHs – European Digital Innovation Hubs

ERAF – European Regional Development Fund

EU – European Union

HQE – highly qualified employees

LatBAN – Latvian Business Angel Network

LBTU – Latvia University of Life Sciences and Technologies

LDDK – Employers' Confederation of Latvia

LIAA - Investment and Development Agency of Latvia

LLKIC – Latvian Rural Advisory and Training Centre

LVCA – Latvian Private Equity and Venture Capital Association

MoE - Ministry of Economics of the Republic of Latvia

NVA – State Employment Agency

RRF – Recovery and Resilience Facility

RTU – Riga Technical University

SME – Small and medium enterprises

SMU – School Student Company

ZPR - Zemgale planning region

ZRKAC – Zemgale Region Human Resource and Competences Development Centre

ZUC – Zemgale Business Support Centre

4. Introduction and Methodology

The main **purpose** of the regional analysis is, first of all, to identify and analyze the factors that contribute to the development of the ecosystem of Unicorns (startup companies valued at over 1 billion USD) in the Zemgale region, Latvia. The study includes an analysis of the regional ecosystem, an overview of the number of startups and sectors, an examination of the situation of policy instruments and the development of recommendations. Secondly, the purpose of the analysis is also to recognize bottlenecks and obstacles that hinder the development of a *Unicorn*-friendly ecosystem in the Zemgale region, to identify where public strategies and/or policies are lacking, as well as to spot improvements and possible solutions, as well as to identify the need for existing policy instruments and systemic support in the Zemgale region.

The regional analysis will be the basic document and the main source of information for a comprehensive comparative study, which will provide an overview of the current situation in Latvia in the context of other partner countries of the project.

In order to achieve the objectives of the study, the **following tasks were set**:

- analysis of the startup ecosystem in Latvia in general and in the Zemgale region in particular;
- analysis of startup industries;
- analysis of statistics and examples of startup companies in Latvia, the Baltic States, and Finland;
- evaluation of startups in the Zemgale region;
- mapping of startup ecosystem actors/stakeholders;
- evaluation of national, regional and local policies regarding the development of the startup ecosystem;
- analysis of good practice examples and initiatives from Latvia and the Zemgale region that promote the development of startups;
- development of conclusions and recommendations.

The methodology used in the study:

- **Quantitative research:** statistical data analysis of startups using the *Startin.lv* database of the Latvian Startup Association.
- **Comparative analysis:** comparison of the situation in the Zemgale region with other regions.
- Qualitative research: Workshop discussion with the stakeholders. A workshop
 was organized with the stakeholders, where the current situation was discussed
 individually and in groups, an assessment of the impact and interest of the
 stakeholders was carried out, as well as the possible solutions were developed to
 promote the development of startups and *Unicorns*.

- **Analysis of examples:** analysis of startups and *Unicorns* in Latvia, Lithuania, Estonia and Finland.
- **Structured written expert interviews:** aimed to obtain the opinion of the members of the startup/*Unicorn* ecosystem.
- **Analysis of good practice examples:** examples of good practice in Latvia and the Zemgale region that promote the development of startups.
- Mapping of participants/stakeholders in the startup ecosystem: identification of participants in the startup/*Unicorn* ecosystem, determination of their impact and interest.

5. Startup Ecosystem

5.1. Startup Ecosystem Analysis

In order to promote the start of innovative business and the formation of startups, a number of various measures have been taken so far to support entrepreneurship in Latvia.

Law on Aid for the Activities of Startup Companies

On January 1, 2017, the Law on Aid for the Activities of Startup Companies came into force, the purpose of which is to promote the formation of startups in Latvia, thereby promoting research, as well as the use of innovative ideas, products or processes in economic activities (commercialization of research products) (Law on Aid for the Activities of Startup Companies). The Law sets support programs for the operation of startups and their allocation criteria for startups, the procedures for administration of support granted to startups, as well as the qualification conditions for qualified venture capital investors.

The Law determines startup support programs, their allocation criteria, as well as the procedure for administration of support granted to a startup, the qualification conditions for venture capital investors, and the formation procedure and competence of the startup evaluation commission.

Related regulatory acts have been developed for the implementation of the Law on Aid for the Activities of Startup Companies:

- Cabinet Regulations No. 644 "Implementation provisions for measure 1.2.1.4
 "Support for the Improvement of Technology Transfer System" of the specific
 support objective 1.2.1 "Strengthening the Capacity of Research and Innovation
 and the Deployment of Advanced Technologies for Enterprises" of the European
 Union Cohesion Policy Program 2021-2027", adopted 07/11/2023 (Ministru
 kabineta 07.11.2023. noteikumi Nr. 644).
- Cabinet Regulation No. 74 "Procedures for the Submission of Applications of Aid Programmes for Start-up Companies and Administration Thereof", adopted 07/02/2017 (Cabinet Regulation No. 74).
- Cabinet Regulations No. 30 "Regulations for the Startup Evaluation Commission", adopted 17/01/2017 (2017. gada 17. janvāra Ministru kabineta noteikumi Nr. 30.).
- Cabinet Regulation No. 692 "Regulation for the Implementation of the Activity 1.2.1.2 "Support for the Improvement of Technology Transfer System" of the Specific Objective 1.2.1 "To increase investments of private sector in R&D" of the Operational Programme "Growth and Employment", adopted 25/10/2016 (Cabinet Regulation No. 692).

 Cabinet Regulation No. 827 "Regulations Regarding Registration of Persons Making Mandatory State Social Insurance Contributions and Reports Regarding Mandatory State Social Insurance Contributions and Personal Income Tax", adopted 07/09/2010 (Cabinet Regulation No. 827).

Investment and Development Agency of Latvia (LIAA), in accordance with the Law on Aid for the Activities of Startup Companies, offers the opportunity for Latvian startups to receive support in two programs:

- co-financing 45% of the remuneration costs of highly qualified employees (HQE);
- applying tax incentives or paying reduced labor taxes (Law on Aid for the Activities of Startup Companies& Business.gov.lv).

HQE support is co-financed by the European Regional Development Fund, while tax incentives are provided through the national budget support.

Amount of support	2,625,000 EUR
Funding	Support for attracting AKD - ERDF funding
	Tax incentives – national budget
Deadline	30/04/2027

One of the main allocation criteria for support programs to startups is the investment of at least 30,000 euros by qualified venture capital investors in the share capital of the startup company in each year of submission of the support application, thereby confirming the viability of the proposed business idea.

In order for a capital company to qualify for support in the program, the investor must be included in the list of qualified venture capital investors maintained by the LIAA. An alternative investment fund or its manager, accelerator or business angel (natural or legal person) may be included in the list if the conditions of Article 5 of the Law on Aid for the Activities of Startup Companies are met. Currently, there are 23 persons on the LIAA's list of qualified venture capital investors.

Startups of the ZPR have received LIAA support five times since 2018, three of them by *MonaTek, Ltd*, once in 2018 by *Motivio, Ltd*, and once in 2023 by *RedFrog, Ltd*.

In total, since 2018, Latvian startups have received LIAA support for the attraction of highly qualified employees, fixed tax payment and personal income tax incentives 241 times, of which 212 times these were startups from the Riga planning region (see Figure 5.1) (LIAA atbalstīto jaunuzņēmumu reģistrs).

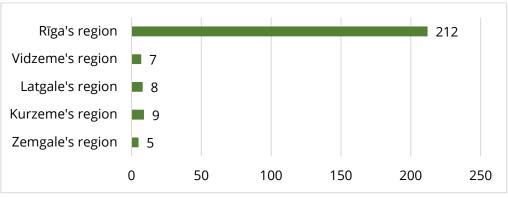


Figure 5.1. - Breakdown of LIAA support by planning regions (2018–2024) (Source: LIAA data)

LIAA support

LIAA, as a direct administrative institution under the authority of the Ministry of Economics, aims to help companies grow, starting from a new and promising idea up to world-class recognition in export markets. In the regions, LIAA provides services in 20 representative offices, including Jelgava, Bauska and Jēkabpils in the Zemgale region. In 2024, 45 investment projects were launched with the participation of LIAA, the total amount of which reaches 655.4 million euros. The total investment portfolio of LIAA comprises 166 projects and their total investment value makes EUR 10.8 billion.

One of the most important accomplished investment projects of LIAA is *Asns Ingredient, Ltd*, which has started the construction of a pea protein isolate production plant in Jelgava and plans to invest 114 million euros. Construction is planned to be completed at the end of 2026; maximum capacity will be reached at the end of 2027.

Business Pre-Incubation Program

During the planning period of the EU Structural Funds 2021–2027, business preincubation aid is available for SMEs within the framework of the Innovative Business Development Program.

The Business Pre-Incubation Program is available to merchants who have been registered in the commercial register of the Republic of Latvia for no longer than 3 years. In order for the applicant to meet the conditions of business pre-incubation support, there must be a clearly defined idea of an innovative or exportable product and clear steps as to how it is planned to be developed within 12 months. Business pre-incubation support includes non-financial support measures aimed at new, innovative and export-capable Latvian companies for up to 3 years, to strengthen their viability, increase growth potential and promote the export of goods and services produced in Latvia. Support is provided individually to each merchant in order to help develop an innovative or exportable product and prepare for participation in the Business Incubation Program (Business.gov.lv).

Amount of support	33.31 million EUR
	designed to provide training to program
	participants
Funding	ERAF and the national budget
Deadline	30/06/2027 or as long as the funding is
	available

Business incubation Program

During the planning period of the EU Structural Funds 2021–2027, business incubation for aid available SMEs within the framework of the Business Development Program. These are various financial and non-financial support measures aimed at new companies in order to strengthen the viability of innovative, technological, creative, export-capable, classical companies of Latvia, including companies that produce dual-use products (goods, services, also software and technologies that can be used for both civil and security and defense purposes), to increase their growth potential and promote the export of goods and services produced in Latvia. Companies registered in Latvia, being up to 5 years old, working with technologies, developing innovative products or services, as well as merchants from the creative industries sector with a developed product or service at least at a minimum viable level can apply for incubation support. Admission to the Business Incubation Support Program takes place twice a year (Business.gov.lv).

Amount of support	33.31 million EUR	
	financial and non-financial support for	
	young Latvian entrepreneurs	
Funding	ERAF and the national budget	
Deadline	30/06/2027 or as long as the funding is	
	available	

Financial support is available in the form of grants for renting premises and workplaces, for the purchase of production equipment and machinery, for the purchase of raw materials and basic materials, while for innovative entrepreneurs, support is also available for covering employee remuneration costs and for specific services of prototyping and technology development. Non-financial support includes consultations on issues relevant to business development, training and workshops of business modelling, marketing, product development management, personnel management, financial planning and attraction and other issues relevant to business development, expert advice, consultations of local and international mentors, networking and exchange of experiences, etc. Table 5.1., provided below, summarizes all types of LIAA non-financial support and financial support grants for incubation.

Table 5.1. – Types of LIAA incubation non-financial support and financial support grants

NON-FINANCIAL SUPPORT

- Consultations provided by LIAA on issues important for business development.
- Training and workshops of business modeling, marketing, product development management, personnel management, financial planning and attraction and other issues relevant to business development.
- Expert consultations.
- Consultations of local and international mentors.
- Networking and experience exchange events for the promotion of cooperation between the LIAA representative office, merchants of the region and specific industries.
- Participation in events to promote the recognition of merchants and to present products/services to potential customers.
- Co-creation spaces.

FINANCIAL SUPPORT

FINANCIAL SUPPORT			
	Type of grant	Examples of eligible costs	Aid intensity
Grant opportunities for all incubation merchants for business and product development, promotion of exportability	For services For the purchase of production equipment/machines	Premises and workplaces for rent (only available in the first two years of receiving incubation support) Production equipment Tools Specialized equipment	50%, not exceeding EUR 10,000 per grant 50%, not exceeding EUR 8,000 per grant
	For the purchase of raw materials and basic materials	The grant for the purchase of raw materials and basic materials is available only in the first two years of receiving incubation support	30%, not exceeding EUR 5,000 per grant
Additional grant opportunities for innovative merchants	To cover employee's remuneration costs	The remuneration grant is available once in a period of 12 months to cover remuneration costs for 1 employee. The	Grant amount not exceeding EUR 10,000

		,
	amount of the grant	
	for 1 month will be	
	determined	
	considering the	
	national minimum	
	monthly wage and	
	the amount of the	
	employer's	
	' '	
	social insurance	
	contribution.	
Prototyping and	Grant to co-finance	With a support
,, ,	prototyping, testing,	intensity of 70%,
0,	etc. services.	not exceeding
· · · · · · · · · · · · · · · · · · ·		EUR 20,000 per
		grant
	Prototyping and technology development specific services	for 1 month will be determined considering the national minimum monthly wage and the amount of the employer's mandatory state social insurance contribution. Prototyping and technology development specific for 1 month will be determined considering the national minimum monthly wage and the amount of the employer's mandatory state social insurance contribution.

The construction technology startup *Adventum Tech, Ltd.* in the Zemgale Planning Region actively use the available support programs of LIAA, repeatedly participating in preacceleration and acceleration programs, LIAA's previous planning period business incubator, various international exhibitions of LIAA, organized by the agency, prototyping program "Prototech", and has already started its participation in the new incubation program call.

Adventum Tech, Ltd. develop wireless "real-time" monitoring solutions for the construction, energy and mobility industry. The complete solution consists of sensors developed by Adventum Tech, Ltd., which ensure real-time data acquisition, and analytical software developed by Adventum Tech for further data analysis. The device developed by the company measures the load of supporting building structures, providing civil engineers with a complete picture of building structures in order to make more efficient and accurate decisions and reduce various project risks during the construction process.

Innovation Voucher Support Program

LIAA offers the opportunity for Latvian businessmen to develop new products and technologies in cooperation with research organizations with the aim of introducing them into the market. Within the Innovation Voucher Support Program, four types of voucher support are provided – introduction, classic, design voucher and attracting highly qualified employees; and through them it is possible to receive aid for the following activities to be supported:

- technical and economical feasibility study;
- industrial research;

- experimental development;
- development of industrial design of the product;
- strengthening industrial property rights;
- new product or technology certification and testing services;
- attraction of highly qualified employees;
- designer service (Business.gov.lv.).

Amount of support	Up to EUR 25,000 for the development of	
	one new product or technology	
Funding	ERAF Funding EUR 5,425,000	
Deadline	30/04/2027	

Voucher support is intended for micro-, small and medium-sized merchants. The voucher is like a letter of guarantee to the service provider for the payment of the development part of the specific product.

If the merchant recognizes the offer price of the potential service provider as economically the most advantageous, then he hands over the voucher to the service provider and concludes the service contract with it. The voucher is like a letter of guarantee to the service provider for the payment of the development part of the specific product. The service provider accomplishes the tasks specified in the voucher and receives payment.

Among the research organizations the businessmen have cooperated with are the following ones based in the Zemgale Planning Region or related to the economic specialization of the region: (1) LBTU; (2) LBTU Institute of Horticulture; (3) Latvian State Institute of Wood Chemistry; (4) Latvian State Forest Research Institute *Silava*.

Support for digitization of processes

In 2023, LIAA started to provide support to Latvian entrepreneurs in order to promote the digitization of processes used in commercial activities. With the support of available grants, entrepreneurs can digitize various processes used in their business (administrative, personnel, resources, ICT and others). The implemented digitization projects will help promote the competitiveness of Latvian entrepreneurs and increase productivity. Support for merchants is provided with the funding of the Recovery and Resilience Mechanism; LIAA cooperates with the European Digital Innovation Hubs (EDIHs) developed by the Latvian IT cluster, and with the Digital Accelerator of Latvia within the framework of the implementation of this program (Support for digitalization of processes in commercial activities).

Amount of support	33.5 million EUR
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	Small grant: up to 9999 EUR (100% support)
	Large grant: up to 100,000 EUR (support 30–60%)
Funding	RRF
Deadline	31/03/2026 or as long as funding is available.

According to the information provided by EDIHs, more than 1,600 digital development roadmaps have already been issued by mid-December 2024. There are still around 1,900 digital development roadmaps in the evaluation process, which provide for the attraction of LIAA grants for the implementation of investment projects. The digital development roadmap comprises recommendations and guidelines created by an EDIHs expert on the investments required by the client to promote digital transformation. In order to reduce the risk of exceeding the amount of available funding, application for new EDIHs digital development roadmaps was open until January 31, 2025. In the 2nd quarter of 2025, it is planned to open a new EU fund support program for the digitization of business processes.

Support within the framework of innovation procurement

LIAA offers support to Latvian merchants to promote the creation of innovative and new products in their business through innovation procurement. Support is provided for new products and their commercialization that are developed within the framework of innovation procurement. Within the framework of the aid program, a merchant can receive support in the form of a grant in the amount of 50% of the purchase contract price, which is up to EUR 50,000, for the following activities to be supported:

- experimental development;
- certification and testing services.

Support is intended for merchants with whom a procurement contract has been signed as part of the innovation partnership procedure (Atbalsts inovāciju iepirkuma ietvaros).

Amount of support	1 million EUR	
	Up to EUR 50,000 per application	
Funding	ERAF	
Deadline	30/04/2027	

Export Aid Action Plan

During the planning period of the EU Structural Funds 2021–2027, LIAA continues to provide support for innovative business development of Latvian SMEs. One of the support directions of the innovative business development program for SMEs is the subprogram of the Export Aid Action Plan. Within its framework, the export capacity of Latvian SMEs operating in medium-high, high-tech and knowledge-intensive service sectors is promoted through various activities (Export Aid Action Plan).

Amount of support	13 million EUR
	Amount of support
	up to 40,000 EUR per year
	not exceeding 30% of net turnover
Funding	ERAF and the national budget
Deadline	From 29/11/2023 to 30/06/2027 or as long
	as funding is available

LIAA contest "Idea Cup"

LIAA implements various activities to promote the start-up and development of entrepreneurship. In 2024, for the 16th time in a row, budding entrepreneurs of Latvia participated in the contest "Idea Cup", which serves as a steppingstone for startups. The third place in the innovative idea contest "Idea Cup 2023" was won by the ZPR startup *PrintyMed*. The contest offers participants the possibility to learn the basics of business, validate their ideas, as well as add to their professional skills under the guidance of experienced experts in areas such as investment attraction, financial planning, team building and digital marketing. New contacts in the business environment and advice received from competent mentors for the further development of their business are also a significant benefit (LIAA, Ideju kausā" jauns pieteikto ideju rekords – 386 inovācijas).

In 2024, most of the ideas in the "Idea Cup" came from Riga (41.1%), but the other regions were also quite active – Vidzeme (23.2%), Zemgale (13.8%), Latgale and Kurzeme (each 10.2%). Following Riga as the most active generator of ideas with 158 applications, Valmiera and Jelgava came each with 19 ideas, Liepāja with 15 applications and Rēzekne with 13 ideas.

The total prize fund is 40,000 EUR, the first prize amounts 10,000 EUR. The "Idea Cup" contest is organized by the LIAA within the framework of the SME innovative business development program co-financed by the ERAF.

The innovative biomedical startup *PrintyMed, Ltd*, launched in 2023, has developed a unique biomaterial – artificial spider silk that is planned to be used for various medical purposes, including the creation of artificial organs, which would help save many lives. Already in 2025, the domestic startup plans to export the cell-binding membrane, which can be used to produce "organ-on-a-chip" technology, to Estonia, Finland and Great Britain.

PrintyMed, Ltd has already attracted various grants. Including the initial investments in research, 2 million euros have been invested in the development of technology. By attracting grants from the Competence Center for Smart Materials and Technologies, the total amount of which exceeds 800 thousand euros, it is planned to start sales activities. *PrintyMed, Ltd* is always looking for opportunities to attract investments. In the spring of

2024, the startup entered the LIAA Technologies Representative Office in the Riga Business Incubation Program.

Evaluating investors' demand, the company's representatives do not keep it a secret that in the field of medicine, investors more often choose fast-reaching goals, such as the creation of applications (digital solutions). But *PrintyMed* don't want to take the easy way out and choose to create products with high added value, like printing artificial organs.

Use of co-creation facilities in LIAA representative offices in

Co-creation spaces can be used by entrepreneurs, participants of LIAA support programs and other residents. In LIAA representative offices, in co-creation rooms or open offices, you can work, meet with clients and cooperation partners, and use the available office equipment (printer, scanner, equipment for presentations, etc.).



Figure 5.2. Map of Latvia with LIAA regional offices (Source: LIAA data)

ALTUM support

Both in the Baltics and in Europe as a whole, the public sector is the main investor in startups. Latvia has been doing so since 2010. In 2024, the Altum selected four funds in the procurement procedure for the fifth generation of investment in startups in – three in the early stage of startups, one in the growth stage.

The Development Finance Institution ALTUM has selected three venture capital fund managers for startups, who will invest EU funds and private financing in promising companies in Latvia and other EU countries over the next five years. Each fund will invest 20.7 million euros in startups, particularly supporting companies in the early stages of development. The total public funding for this project is EUR 55.8 million, and each fund will also have to secure an additional EUR 2.07 million in private investment. In total, EUR

62 million will be invested in these early-stage companies. This is the largest amount of investment to date, specifically in early growth companies (ALTUM, 2024).

Contracts have been concluded with the following fund managers:

- "BADideas.fund" BADideas.fund) The fund was founded in 2022. The fund has invested 3 million euros in 25 startups. The fund basically focuses on teams that think globally from the beginning of the idea. The fund has financed the ZPR startup *Supliful*, *Ltd*, which has reached 10 million turnover in two years. Fund managers are aware of the risk they take when investing in early-stage startups. The main fund's ability to select and support startups is based on a community of 200 unicorns in more than 20 countries around the world, such as *Printify*, *Printful* (Latvia), *Wise*, *Piperdrive*, *Bolt* (Estonia), *Vinted*, *NordVPN* (Lithuania).
- "VNTRS Consulting" with the name of the fund "Outlast Fund" (Outlast Fund home page). Outlast Fund advocates sustainable business ideas and creates added value for the economy. The startups that the fund will invest in will have access to a wide network of contacts across Europe, as the founders of the fund have created one of the largest venture studios in the Nordic countries, which not only invest, but also help develop products and push them to the market. The representatives of the fund believe that at the early stage one of the biggest success factors is the team how experienced are the founders, how well they cooperate, how successfully they are able to build solutions that meet the needs of the market and customers.
- "Buildit VC" Foundation (Buildit VC home page) has been in existence for ten years, started in Estonia, and has always dealt with computer system technical parts (Hardware) and Internet of Things (IoT) projects, helping startups to scale faster and smarter – from developing prototypes into market-ready products to securing significant investments.

The selected funds will make investments in pre-seed stage companies, where the maximum investment in one project will be up to 250 thousand euros, as well as in seed stage companies, where the maximum planned investment in one project will be up to 1.5 million euros.

In the procurement of a growth stage fund manager, the fund manager "FlyCap" fund was selected, with a capital of 41.3 million euros, which still needs to attract at least 16 million euros from private investors. Growth capital fund "FlyCap" has been operating since 2013 and currently "FlyCap" has 36 million euros under its management (FlyCap Fund home page). The fund plans to support 20-30 growth companies. The fund works with companies in all industries (excluding the alcohol, tobacco and gambling industries); however, it prefers working with IT and technology companies where the fund has a track record of success. In January 2024, the fund invested in the ZPR startup *Supliful*, *Ltd*.

According to *Civitta* survey results one of the most important challenges for Latvian startups is to attract funding from venture capital funds. 53% of surveyed Latvian startups indicated this as the main problem (Civitta, 2022). Startups must be very persistent on the road to scalability, as venture capital funds may have to apply dozens of times to raise funding. The research indicates that a lot of perseverance and patience is needed, as on average a startup company in Latvia has to contact venture capital funds 27 times before they manage to get financing.

Private sector support

The private sector, NGOs and foundations by promoting the emergence of new companies, their successful development, ensuring the transfer of knowledge and experience and promoting the environment for the cooperation of startups, investors and ecosystem participants both at the local and international level, play an essential role in the development of the ecosystem of startups. A brief description of the organizations is provided below.

Latvian startup association "Startin.LV" is a non-profit NGO established in 2016 to unite Latvian startups, develop the startup community and promote mutual understanding in the startup ecosystem. It currently unites more than 100 members, including not only startups, but also corporate companies, legal service providers and other representatives and creators of the ecosystem. The primary goal of "Startin.LV" is to represent the interests of startups in the development of industry policy. At the same time, "Startin.LV" also implements a series of other activities to improve and develop the ecosystem (Startin.LV).

Latvian Private Equity and Venture Capital Association (LVCA)

In order to promote the development of the venture capital industry in Latvia, the six largest companies operating in the venture capital industry in Latvia, together with LIAA, founded the public organization LVCA.

By investing funds in the company, the venture capital fund becomes its co-owner, thereby assuming a part of the business risk, but also expecting a return commensurate with the increased risk. The fund, like the other co-owners, is directly interested in the growth of the company's value. Business owners and management who choose this type of financing receive, in addition to a financial investment, the experience, knowledge and connections of a venture capital fund, thus contributing to success.

LVCA has the following tasks:

 Inform entrepreneurs and the public about venture capital financing opportunities.

- Promote the exchange of opinions and experiences between association members.
- Represent the views and interests of members in discussions with the authorities.
- Organize and ensure cooperation with international and foreign capital associations (LVCA).

Latvian Business Angels Network (LatBAN)

The association was founded on April 29, 2014, and unites more than 40 members. The main goal of the association is to promote successful investments in the development and establishment of new companies with rapid growth potential, high added value, and export capacity. To achieve the main goal, the following tasks and goals of the association are set:

- develop the cooperation of private investors (business angels) in Latvia;
- help private investors find entrepreneurs who are looking for financing and/or knowledge for business start-up and/or development; collect, create and maintain information (database) about entrepreneurs who are looking for financing opportunities and investors who would be willing to invest in merchant companies;
- enhance the exchange of information between potential private investors and entrepreneurs in need of financing;
- organize different types of workshops, conferences, training programs for both private investors and entrepreneurs and other activities that correspond the nature of the association activities;
- advocate members' interests in negotiations with authorities and local government institutions; cooperate with international organizations.

Every month, LatBAN holds investment sessions where the best startups can present their companies, organizes master classes where they help prepare for the presentation of an elevator pitch (LatBAN).

Available infrastructure

ZPR has several industrial parks that offer infrastructure and resources for business development. Table 5.2. summarizes information about the region's industrial parks and territories.

Table 5.2. ZPR industrial parks and territories

No.	Industrial parks and territories in Zemgale Planning Region	Description of the offer
1.	Bauska Industrial and Logistics Park	The total area amounts 105 ha, 80 ha of which are planned for industrial building,

No.	Industrial parks and territories in Zemgale Planning Region	Description of the offer	
		while 20 ha – for commercial building. Territory in Bauska Industrial and Logistics Park is offered for long-term rent.	
2.	Industrial territories in Aizkraukle and Aizkraukle Industrial Park	Industrial territories in Aizkraukle and Aizkraukle Industrial Park. The total land area of the Aizkraukle Industrial Park is 37,800 m ² , the total area of buildings is 21,000 m ² , the total area of production premises is 15,000 m ² , the total area of shop/office premises is 6,000 m ² . Office space, space for production and warehouses are available.	
3.	Industrial areas in Jēkabpils	Several territories are available in the city for the development of production.	
4.	Industrial Park <i>Nākotne</i> , industrial territories of Jelgava Municipality	Industrial Park <i>Nākotne</i> , industrial areas of Jelgava Municipality. It consists of two buildings, each with an approximate area of 1450 m ² . One of the buildings is vacant. Plot area: 4 ha, purpose of land use: mixed, transaction type building.	
5.	NP Jelgava Business Park	It is one of the largest reconstructed industrial parks in Latvia with a total area of 23 ha and a leasable area of more than 70,000 m ² . It is possible to rent production premises, warehouses and office premises in the NP Jelgava Business Park.	
6.	Lielupe Industrial Park	The industrial area is 17 ha in area. Most of this industrial area is being developed as an industrial park, where manufacturing companies will be located. Office space available for rent.	
7.	Zemgale Industrial Park	Project No. 3.1.1.3.i.0/1/23/A/CFLA/003 The aim of the project is to develop public infrastructure for the accessibility, development and attraction of the territory of the Zemgale Industrial Park, promoting the creation of jobs with high added value and export-oriented jobs in the city of Jelgava, thereby reducing the regional development differences between the regions of Riga and Zemgale. The implementation period of the project activities is until December 31, 2025.	

In addition to the enlisted industrial parks, other infrastructural resources are also available to young entrepreneurs in ZPR:

- KOPRADE, a space created by ZUC for young people, where 13-25-year-old young people from the region can meet with the aim of promoting their susceptibility and entrepreneurial abilities. KOPRADE offers:
 - o room for young people for individual or group work (free common room and kitchen);
 - o consultations on choosing a career, achieving goals, creating SME and other self-improvement issues;
 - various events (ZUC).
- In Jēkabpils Municipality, within the project "Development of the business environment of Zemgale and promotion of competitiveness of entrepreneurs" No. LVIII-068 within the framework of "SMEPRO 2", an open-type office or co-working space has been created for the promotion of entrepreneurship in the municipality. The premises are primarily intended for the entrepreneurs of Jēkabpils Region and their support, but Jēkabpils Municipality invites everyone who is looking for a place to devote themselves to their daily work too use the premises (Jēkabpils novads, 2024).
- The Dobele Adult Education and Entrepreneurship Support Center has a cocreation technology room "OpenLab", where budding and current craftsmen, school students, students and other interested parties have the opportunity to develop their ideas, create new product prototypes and learn more about what can be created from the equipment in the room (Dobeles Pieaugušo izglītības un uzņēmējdarbības atbalsta centrs).
- Co-creation spaces of the Entrepreneurship Support Center of Aizkraukle Municipality. The co-creation space was created with the aim of promoting the development of the region's business environment in the municipality and providing support to small and medium-sized enterprises. The space is intended not only for work, but also for workshops, creative collaboration, and events (Aizkraukles novads, 2024).

Educational and research institutions

Zemgale has intellectual and scientific potential, especially in the field of agriculture and forestry, which contributes to the training of highly qualified specialists and the development of scientific research. Table 5.3. provides a list of the main educational and research institutions in the ZPR.

Table 5.3. Educational and research institutions ZPR

No	Educational/	Potential importance in the formation of
	Research Institution	startups
1.	LBTU Department of Technology and Knowledge Transfer	The purpose of the Department of Technology and Knowledge Transfer at LBTU is to promote cooperation of scientists and commercial companies, protection of intellectual property and commercialization of research results at LBTU, to systematically identify the existing and purposefully develop the necessary research competence at LBTU.
2.	LBTU Institute of Agriculture	The Institute of Agriculture is a structural unit under the supervision of LBTU in Skrīveri, which conducts scientific research, selects perennial grasses and prepares the highest category seeds of the newest varieties, tests the economic characteristics of field plant varieties in conventional and organic agriculture, prepares young scientists in accordance with doctoral study programs at LBTU's. The institute educates farmers and other agricultural specialists, popularizes scientific findings, conducts soil and plant analyses.
3.	LBTU Institute of Horticulture	The Institute of Horticulture is a derived public entity (APP) under the supervision of LBTU – a scientific institute. The Institute of Horticulture develops cooperation projects with companies in ZPR in order to promote innovation and the introduction of new technologies in the horticulture sector. These types of projects are related to the development of new plant varieties, improvement of processing technologies or organic farming practices. Offers education and training programs in the field of horticulture for companies in ZPR.
4.	Forest and Wood Products Research and Development Institute, Ltd	A commercial company founded by LBTU, JSC Latvia's State Forests and the Latvian Wood Industry Federation. The aim of the Forest and Wood Products Research and Development Institute is to unite the forces of the university and industry entrepreneurs in order to raise the competitiveness of the forest industry in the Baltics. The main task is to competently and responsibly solve the issues raised by the industry – forest and wood product development and improvement of professional education. The areas of activity are research and development projects,

No	Educational/	Potential importance in the formation of	
	Research Institution	startups	
		services in the field of testing and applied research,	
		continuing education measures and support for	
		the improvement of professional education.	
5.	"EIT Food Hub Latvia"	LBTU in Latvia represents the knowledge and	
		innovation community of the European Institute of	
		Innovation and Technology (EIT) in bioeconomy	
		and related sectors – EIT Food. LBTU EIT Food HUB	
		in Latvia is created together with cooperation	
		partners – LLKIC and LIAA, bringing together	
		members of the innovation ecosystem with a wide	
		cooperation network and experience in providing	
		support to entrepreneurs and innovators in the	
		agricultural and food sectors.	
		EIT Food is the leading food innovation community	
		in the world, which brings together all actors of the	
		European food industry, including universities,	
		research centers and startups, to make the existing	
		food ecosystem healthier and more sustainable,	
		paying special attention to three current challenges	
		of the industry: wholesome and balanced nutrition,	
		sustainable food system and risk reduction for a	
		fair and sustainable food system.	

In 2024, Riga Technical University in cooperation with the LDDK carried out the study "Knowledge Transfer Barometer" in Latvia (RTU Zināšanu pārneses barometrs) on cooperation between universities and companies. The long-term goal of the study is to promote research and innovation in business, creating a healthy soil for the growth of the high added value economy in Latvia. The "Knowledge Transfer Barometer" is based on a survey of Latvian businessmen and in-depth interviews with company representatives who have experience of cooperation with universities.

The "Knowledge Transfer Barometer" confirms the readiness of universities and industry to cooperate more intensively in science and innovation. Latvia is doing well with cooperation between universities and companies in the field of studies, while the biggest challenges are cooperation in joint research projects and the development of innovations. Universities and the business sector are still learning to work together, to find a common language and goal. In order for cooperation to be more effective, universities need to be more aware of the needs in the business sector. Currently, successful cooperation depends on the personalities and interests of specific people.

The company surveys carried out as part of the research indicate that, in general, companies are relatively little informed about various opportunities for cooperation with

universities. The highest level of awareness is about cooperation in the field of studies and organization of informative events – workshops and conferences. The companies surveyed are the best informed about the possibility of accepting students for internships. Companies are relatively well informed about learning based on the work environment, guest lectures for students and offers to improve the qualifications of employees, however, awareness of other opportunities for cooperation, including cooperation in the field of research and innovation, is significantly lower. The survey indicates that the initiators of cooperation are more often companies. The next most active groups of cooperation agents are company employees who have studied or are currently studying at the university, as well as university students. Cooperation is less often initiated by universities – researchers, professors, management, structural units that coordinate cooperation between companies and universities.

Cooperation should become systemic, and it is also necessary to strengthen the orientation of universities towards service and results. Universities need to improve the availability of information about cooperation opportunities, as well as to provide an easy-to-find and accessible contact point (RTU Zināšanu pārneses barometrs).

To build a startup, its owners must have not only technological knowledge, but also entrepreneurial competencies. Entrepreneurship is characterized by the ability to create, perceive or transform ideas and opportunities into action, mobilizing and effectively using the necessary resources to achieve goals. The best way to develop entrepreneurial skills for young people is the participation of primary and secondary education institutions in Junior Achievement Latvia programs:

- **School student companies** (SMUs). SMU is an educational company created and managed by school students, whose activity has an educational character. For learning purposes, SMU performs the functions of a real company and operates in a real environment students produce and sell goods or services. SMUs have no legal status they are represented by Junior Achievement Latvia and the school. SMU is advised and supported by SMU consultants/business consultants. An example of good practice in ZPR is the startup company *Rocketgrip*, *Ltd*, which has grown out of SMU (JAL Skolēnu mācību uznēmumu programa).
- **Leaders Program.** An educational program for personality development and growth for 16–20-year-olds, the aim of which is creation of a new generation of leaders to increase Latvia's competitiveness. The program prepares and inspires specially selected secondary school-aged young people from all over Latvia within the framework of one academic year. Every year, 10–15 young leaders graduate from the program (JAL Līderu programa).

RocketGrip was established in 2015 as a SMU, but two years later it was registered as a limited liability company. *RocketGrip*, *Ltd* produces a tape substitute for hockey sticks. It is a rubber and plastic product that is put on the end of a stick and fused with heat – hot

water or an air dryer. It is an innovative hockey stick handle solution with personalized design and shape options.

The founders of the company twice have used the business incubation support program of the LIAA Jelgava representative office and they admit that it was an extremely useful experience – both in terms of financing and acquiring the necessary knowledge. Since 2020, the company has its own premises in Āne, Jelgava Municipality, and production equipment purchased with the support of the Leader Program. The global approach to the implementation and development of the idea has also been important.

RocketGrip won the national final of the international business idea competition "Creative Business Cup 2024", winning a prize of 5000 euros and the opportunity to represent Latvia in the "Creative Business Cup Global".

Development of entrepreneurial competencies is also important at the higher education level. From the end of 2021 to September 2023, the LBTU Student Business Incubator "HatchUp" operated, providing the opportunity for all university students to take the first steps in business and develop their ideas already during their studies, in addition, using the LBTU infrastructure as a starting point for research purposes. The student business incubator was created within the framework of the Student Innovation Program "Promoting Innovation Skills and Entrepreneurship of LBTU Students". Its priority goal was to promote the implementation of student innovation projects in the region to solve problems important for society and its various groups. In 2025, the LBTU Student Business Incubator will continue its existence and operation.

Development of entrepreneurial competences in the region is promoted by the following organizations:

- **ZUC** a support point for existing and future businessmen in the region, which provides coordinated support for business development in the region and creates a single consulting network, coordinating cooperation with other business support institutions. The purpose of the ZUC is to organize a business ecosystem and infrastructure, promote knowledge transfer and innovation in ZPR economic specializations and RIS 3 sectors, and increase the competitiveness of the region's entrepreneurs in global markets. Within the ZUC, the Zemgale regional contact point (EDIC) of the European Digital Innovation Center operates, the task of which is to ensure the availability of digital technology implementation services in companies, public administration institutions, as well as to promote in-depth digital skills of citizens.
- ZRKAC local government of State City Jelgava professional continuing education institution, the purpose of which is to provide a high-quality lifelong learning offer that meets the needs of Jelgava City and ZPR residents and methodical, educational, as well as informational support for formal and informal education

- institutions and educators. ZRKAC offers a wide range of educational programs for developing entrepreneurial knowledge, skills and competencies.
- **Dobele Adult Education and Entrepreneurship Support Center** educational support institution that provides informal education opportunities to all residents of Dobele Municipality and Zemgale region.
- Bauska and Aizkraukle business support center.

Labour availability

Long-term trends show that the population in Latvia continues to shrink. The total decrease in the number of inhabitants in Latvia since 2000 exceeds 0.5 million, which is approximately a fifth of the population at the beginning of 2000. The main factors influencing demographic trends are population aging, low birth rates and population emigration (EURES, 2023). Since 2022, the number of vacancies in the labor market has decreased, and unemployment also continues to decrease; as a result, the overall situation in the Latvian labor market has become more balanced – employers are increasingly taking advantage of opportunities to attract employees even if their qualifications do not fully correspond to the specific nature of the job or if the employee resides in a region other than the workplace.

The rate of registered unemployment in the country at the end of September 2024 was 5.1% (the proportion of registered unemployed persons of working age in the total number of economically active population). The lowest level of registered unemployment at the end of September 2024 was in the Riga region (3.9%), and the highest – in Latgale (10.3%). The registered unemployment rate in the Vidzeme region is 5.0%, in Zemgale – 4.8%, and in Kurzeme – 4.7% (Figure 5.3). Although regional disproportions are gradually leveling off, the process is slow, and economic activity still differs in Latvian regions. The most significant proportion of jobs is concentrated in Riga and Pierīga regions, while the number of jobs in other regions is significantly lower (EURES, 2023).

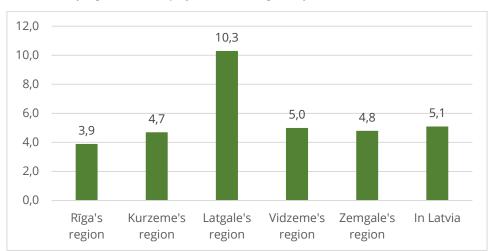
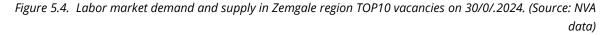
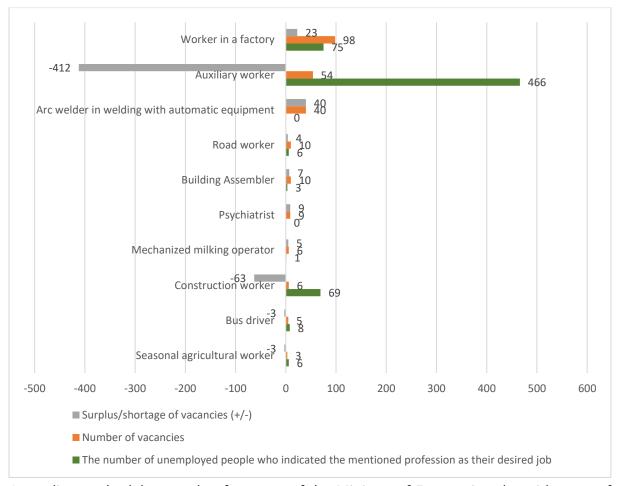


Figure 5.3. The level of registered unemployment in the regions of Latvia on 30/09/2024 (%). (Source: NVA data)

According to the NVA's Report on the labor market situation in the country, in September 2024 in the Zemgale region, the greatest demand for labor was in the groups of low and medium-skilled professions (Figure 5.4) (NVA, 2024).





According to the labor market forecasts of the Ministry of Economics, the wider use of various technologies and innovations on a daily basis will increase the demand for highly qualified employees being educated in exact sciences, especially for information technology and engineering specialists. In general, the following major labor market discrepancies could be observed in the medium term:

- Shortage of highly qualified specialists in natural sciences, ICT and engineering.
- Higher qualification labor surplus being educated in social sciences, commercial sciences and humanities.
- Lack of labor force with vocational secondary education. In the medium term, there may be a labor shortage with vocational secondary education, and the shortage will be observed in practically all thematic groups of education, especially in engineering and production.
- Surplus labor force with secondary general education, primary education and lower education level (Ekonomikas ministrija, 2025).

Technological progress will also have a big impact on employment, the even faster development of which was influenced by the crisis caused by Covid-19. More and more jobs are expected to face automation trends in the coming years, with the largest job losses expected in occupations with a high proportion of manual and repetitive activities, as well as direct service occupations such as retail sales and cashiers, call operators and similar occupations. In the long term, automation trends could have the greatest impact on the number of middle-skilled jobs.

It should be noted that technology is polarizing the labour market, creating high-skilled, well-paid jobs, replacing low-skilled and low-paid jobs, and pushing middle-skilled jobs out of the labor market. Professions that require a high level of education, high social interaction and the ability to manage, plan and coordinate complex environments/circumstances will be least affected by technological developments. On the other hand, professions that require a relatively low level of education or do not need to engage in complex social interactions, as well as professions in which routine manual work is performed, are most subject to automation.

5.2. Sectorial analysis

Sectors in which startups are registered in Latvia are summarized in the "Civitta" study on the Baltic startup sector "The Baltic Startup Scene: Today's Realities, Tomorrow's Possibilities" (see Figure 5.5).

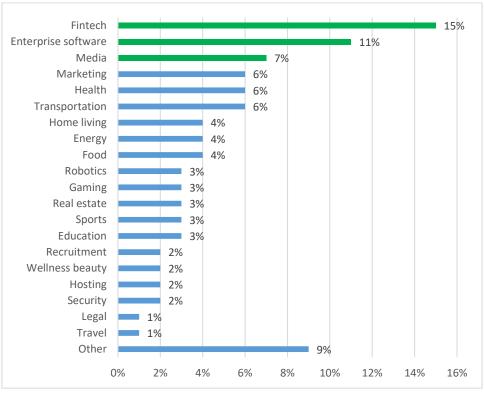


Figure 5.5. Industries represented by Latvian startups (Civitta, 2022)

15% of Latvian startups represent Financial Technologies (FinTech), 11% – Information and Communication Technologies (ICT) and, specifically, enterprise software development, 7% – media. Also in Lithuania and Estonia, Financial Technologies (FinTech) and Information and Communication Technologies (ICT) are the sectors most represented by startups (Civitta, 2022).

The 14 active startups identified in the ZPR, just like in Latvia as a whole, represent various industries, but mostly the synergy of ICT technologies with some other industry (see tables 5.4 and 5.5).

Table 5.4. Industries represented by Zemgale startups (Source: Startin.lv database)

Industry	Number of startups	ZPR startups	Industry explanation
Al	1	Ajelix	Al – artificial intelligence is a
		AJELIX, Ltd. subfield of computer science	
			that deals with the automation
			of intelligent behavior.
HealthTech	2	Smart Barboleta	HealthTech refers to the use
		Barboleta, Ltd. of digital technology and	
			software aimed at improving
		Algae Tree	healthcare delivery,
		Algae Tree, Ltd.	management and outcomes.
Mobile App	2	Smart Barboleta	A Mobile App is a computer
	Barboleta, Ltd. pı		program or software
		Punkt	application designed to run on

Industry	Number of startups	ZPR startups	Industry explanation	
		NORD MADE, Ltd.	a mobile device such as a phone, tablet or watch.	
AR	1	RedFrog RedFrog, Ltd.	Augmented Reality (AR) is an interactive experience that combines the real world and computer-generated 3D content.	
Social Networking	1	RedFrog RedFrog, Ltd.	Social networks are websites and apps that allow users and organizations to communicate, share information, and build relationships.	
MedTech	1	PrintyMed PrintyMed, Ltd.	Med Tech is a broad discipline. It is defined as a field that uses technology, i.e. devices for healthcare systems for diagnostics, patient care, treatment and improvement of personal health.	
SportsTech	1	Rocetgrip RocketGrip, Ltd.	SportsTech includes devices, virtual reality training systems, data analysis software and live streaming platforms. With cutting-edge solutions, SportsTech is transforming areas such as athlete training, fan experience and industry operations.	
Energy	2	MonaTek SIA MonaTek Latvia Energetics Latvia Energetics, Ltd.	New solutions in the energy sector.	
Robotics	1	ELIGENT ELIGEN, Ltd.	Robotics is the interdisciplinary study and practice of designing, building, operating and using robots.	
Biotech	1	Algae Tree Algae Tree, Ltd.	Biotech is a multidisciplinary field that involves the integration of natural sciences and engineering to achieve the application of organisms and	

Industry	Number of startups	ZPR startups	Industry explanation
			their parts to products and services.
NanoTech	1	Algae Tree Algae Tree, Ltd.	NanoTech refers to the branch of science and engineering devoted to the design, manufacture, and use of structures, devices, and systems by manipulating atoms and molecules at the nanoscale, i.e., with one or more dimensions of 100 nanometers (100 millionths of a millimeter) or less.
PropTech	1	MonaTek SIA MonaTek	PropTech - application of information technologies and platforms in the real estate industry.
ІоТ	2	MonaTek SIA MonaTek Sebelo SISebelo	loT - the Internet of Things is the equipping of various real objects (things, physical equipment, natural objects, measuring devices, etc.) with sensors with the aim of obtaining various data and remotely managing, monitoring and performing various actions with these objects using the Internet or other types of connections.
Security	2	Sebelo SIA Sebelo Adventum Tech Adventum Tech, Ltd.	Use of information technology for various security solutions.
GreenTech	1	Sebelo Sebelo, Ltd.	Green technology refers to the development and use of technologies that reduce the negative impact of human activity on the environment and society. It includes a wide range of products, services and practices that support a more sustainable future.

Industry	Number of startups	ZPR startups	Industry explanation
Foodtech	2	Supliful Brand On Demand, Ltd. Punkt NORD MADE, Ltd.	Foodtech is a field that uses technology and innovation to change the way food is produced, distributed and consumed.
Construction	1	Adventum Tech Adventum Tech, Ltd.	Information technology solutions in construction.
PaaS	1	Supliful Brand On Demand, Ltd.	Platform as a Service (PaaS) is a cloud solution that enables companies to develop and deploy apps using the cloud. This includes infrastructure, network resources, servers and BI services on a subscription and demand basis.
FinTech	1	Jeff JEFF, Ltd.	Fintech – financial technology covers all types of technological innovations used to support or provide financial services.
Big Data	1	Jeff JEFF, Ltd.	Big data in information technology includes a set of methods, tools and approaches in the processing of large volumes of structured and unstructured, rapidly growing data of various meanings to obtain a human-readable result.

Table 5.5. Sectors and business models of ZPR startups (Source: Startin.lv database)

No.	Company	Legal status	Industry	Business model
1.	Ajelix	AJELIX, Ltd.	Al	B2B, B2C
2.	Smart Barboleta	Barboleta, Ltd.	HealthTech, Mobile App	B2B2C
3.	RedFrog	RedFrog, Ltd.	AR, Social Networking	B2C
4.	PrintyMed	PrintyMed, Ltd.	MedTech	B2B
5.	Rocketgrip	RocketGrip, Ltd.	SportsTech	B2B, B2C
6.	Latvia Energetics	Latvia Energetics, Ltd.	Energy	
7.	ELIGENT	ELIGENT, Ltd.	Robotics	B2B
8.	Algae Tree	Algae Tree, Ltd.	BioTech, NanoTech, HealthTech	B2B, B2C
9.	MonaTek	MonaTek, Ltd.	PropTech, loT, Energy	B2B
10.	Sebelo	Sebelo, Ltd.	IoT, Security, GreenTech	B2B, B2C, B2G
11.	Punkt	NORD MADE, Ltd.	Foodtech, Mobile App	B2B, B2C, Marketplace
12.	Adventum Tech	Adventum Tech, Ltd.	Construction, Security	B2B
13.	Supliful	Brand On Demand, Ltd.	PaaS, FoodTech	B2B, Marketplace
14.	Jeff	JEFF, Ltd.	FinTech, Big Data	Marketplace

The Latvian annual startup prize 2024 was awarded to two ZPR startups – *Supliful* and PrintyMed – in the following nominations:

Fastest breakthrough – *Supliful*. The startup is engaged in the manufacture and delivery of cosmetics, nutritional supplements and packaged food products to order.

• The startup that creates the biggest social impact – *PrintyMed*. A startup from technology developed at the Latvian Institute of Organic Synthesis has created artificial spider silk in a biomimetic manner, imitating the process as it occurs in nature.

Analysis of the sectors represented by ZPR startups does not show a close connection with the economic profile of the ZPR region. It covers the following four main areas of specialization:

- Bioeconomy, agriculture and processing of its products.
- Management of natural resources (forests and minerals).
- Manufacturing as an urban specialization.
- Tourism and crafts as a brand of the region's identity (Zemgales plānošanas reģiona ilgtspējīgas attīstības stratēģija 2015-2030).

According to the ZPR sustainable development strategy 2015–2030, the following potential specializations of the region in the future have been determined (see Table 5.6)

Table 5.6. ZPR specializations

Agriculture	Traditional niches	Livestock farming, poultry farming, grain
		farming, vegetable and fruit production,
		processing of agricultural products and
		production of food products.
	Developing niches	Bioeconomy, organic agriculture, home
		production, direct food supply farms,
		diversification of the food industry (in
		cooperation with scientists), biomass
		production.
Forestry	Traditional niches	Forestry and logging, woodworking,
		mining and industrial use of peat, sand,
		gravel, gypsum, dolomite, limestone.
	Developing niches	Production of wood products with high
		added value, energetic wood processing
		(production of chips and pellets), creation
		of gas storage.
Manufacturing	Traditional niches	Production of meat products,
industry		confectionery and flour products, dairy
		products, grain processing products;
		wood industry, furniture production;
		production of finished metal products
		and metal structures; production of
		chemicals and chemical products;
		production of finished textiles, etc.
	Developing niches	Production of science-intensive,
		innovative manufacturing industry
		products with high added value, as well as
		production of products with import
		substitution and export potential.

6. Startups

6.1. Number of startups and examples

United criteria for defining a startup are still not adopted by the EU, and its understanding in various European countries can significantly differ. Not in all countries is the startup concept officially set in legislation. Therefore, different sources provide different data about the startup number.

Commissioned by Google, the study that "Civitta" accomplished in 2022 on the Baltic startup industry, "The Baltic Startup Scene: Today's Realities, Tomorrow's Possibilities", concluded that the biggest number of startups and unicorns in the Baltics are found in Estonia. Research data indicate that in Latvia there were 626 startups in 2021 (see Figure 6.1) (Civitta, 2022).

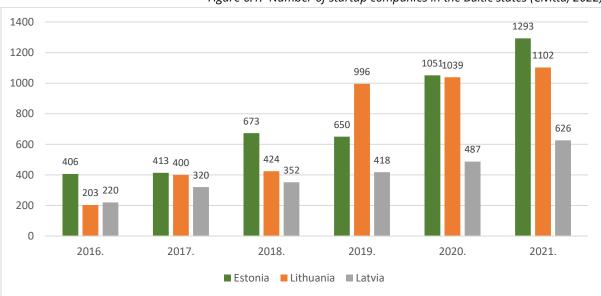


Figure 6.1. Number of startup companies in the Baltic states (Civitta, 2022)

According to the analyses carried out in the study of 2022 by *Oxford Research Baltics*, Ltd., "Assessment of the Ecosystem of Latvian Startups and Identification of the Current State" (SIA "Oxford Research Baltics", 2022), 512 companies were identified in Latvia, which were defined as starups in local and international databases and were databases and are up to 7 years old or founded between 2015 and 2021. By contrast, a total of 489 startups are identified in the Startin.lv database. This shows that the number of startups varies from source to source. Further research will be based on Startin.lv data as they are the most complete and provide an opportunity for further comparison analysis.

Regional breakdown of the number of startups in Latvia, based on Startin.lv data, is provided in Figure 6.2.

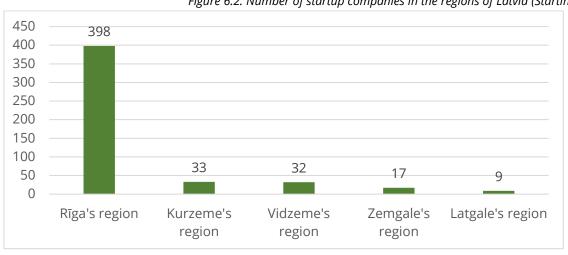
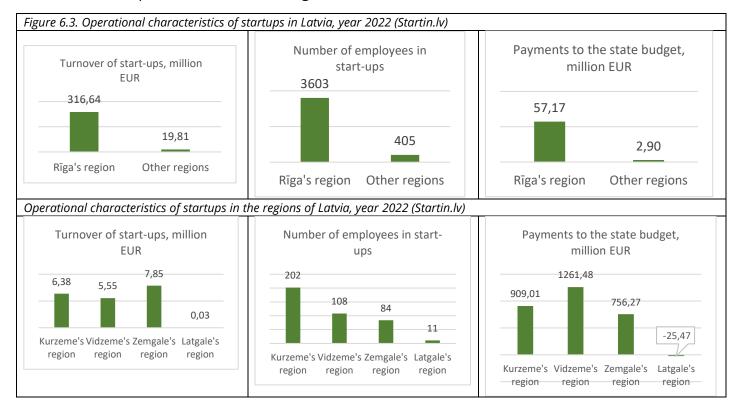


Figure 6.2. Number of startup companies in the regions of Latvia (Startin.lv)

81% of Latvian startups are registered in Riga region. Operational characteristics of Latvian startups are summarized in Figure 6.3.



Despite the fact that the number of startups in Latvia is growing every year, Latvia lags considerably behind Estonia and Lithuania, also in terms of unicorns. Estonia can boast 10 unicorns, Lithuania has two unicorns, Latvia – one. Examples of unicorns in Estonia, Lithuania, Latvia and Finland and their operational description are given below.

Table 6.1. List of startups in Estonia, Lithuania, Latvia and Finland and their operational description

Unicorns	Operational description	Contact information	
Estonia			
Veriff	Veriff is a global online identity verification company founded in 2015 that protects businesses and their customers from online identity fraud through artificial means. Veriff deals with the development of identity verification solutions that include validation of the authenticity of state documents, analysis of network and devices, biometric compliance, AML (antimoney Laundering – fight money laundering), compliance verification, age verification and confirmation of the entity's viability. The company's growth comes amid demand for solutions to avoid identity theft and fraud in the Internet environment. Veriff recognizes more than 3,000 government-issued documents from more than 190 countries around the world.	+372 607 5050 info@veriff.com	
Wise	Wise, Ltd. (brand Wise) is a UK-based financial company. It is headquartered in London. The company was founded in 2011. It provides money transfer services developed in Estonia. Wiss routes payments, not directly transferring the sender's money to the recipient, but directing it to the recipient with an equivalent transfer, which takes place in the opposite direction. Similarly, the transferee receives a payment not from the sender who initiated the transfer but with an equivalent transfer. This process prevents currency conversion and cross-border transfers. Service margins are lower than banking, which is good for people who send small regular transfers abroad.	https://wise.com/	
Zego	A UK-based commercial vehicle insurer founded by Estonians in 2016. The company's customer base extends from self-employed drivers to big companies	info@zego.com	

	T	
	that have a vast fleet of vehicles like <i>Uber</i> and <i>Uber eats</i> , <i>Bolt</i> , <i>Deliveroo</i> and many other well-known co-driving, delivery companies.	
Gelato	GelatoConnect is a print automation software that automates the entire printing process, beginning from order acceptance to final production, reducing human error and manual intervention.	apisupport@gelato.com
	Gelato has built the world's largest network for local production and customized product distribution. GelatoConnect combines all aspects of print management into one platform to streamline processes while improving productivity and reducing operational inefficiency.	
Bolt	Bolt (Taxify until 2019) is the transportation services and goods delivery brand of Estonian company Bolt Technology. The company was founded in 2013. It is headquartered in Tallinn. The company is developing and offering Bolt's mobile app, which allows a taxi or private driver to be called. Shared motorcycles and electric scooters are also offered for use. The company is also developing food delivery service Bolt Food and grocery delivery service Bolt Mmarket.	riga@bolt.eu
Playtech	Playtech was founded in 1999 by Israeli businessman Tedy Sagi in Tartu, Estonia, with partners from the casino, software engineering and multimedia industries. Playtech launched its first casino product in 2001 and has since become the world's leading and largest international web and mobile app software developer and licensor for the digital gaming industry. Playtech, being the world's leading online gaming software developer and provider of online video streaming gaming services, offers software for online casinos, poker rooms, as well as sports betting. It also	info@playtech.com

	offers software for online bingo games	
	and mobile games.	
Pipedrive	Pipedrive is a cloud computing software company that offers CRM (Customer relationship Management) solution for system SMEs. Pipedrive became the fifth unicorn founded by Estonians in 2020. In March 2020, Estonian Pipedrive acquired the Latvian e-mail marketing automation company Mailigen. The company is headquartered in New York, while elsewhere in Europe and in the USA regional offices operate.	press@pipedrive.com
Skype	Skype is a patented telecom application managed by Skype Technologies, a division of Microsoft best known for IP-based video telephony, video conferencing and voice calling. It also has instant messaging, file transfer, debit calls to fixed and mobile phones (over traditional phone networks) and more. It is available on various desktop, mobile and video game console platforms. Skype was created by four Estonian developers; first it was made public in August 2003. In May 2011, Microsoft bought Skype for 8.5 billion dollars and used it to replace their Windows Liva Messenger.	https://www.skype.com/en/
Glia	Glia platform provides new connectivity capabilities for businesses and their customers. Customers and potential clients can communicate with the company through the available channel – phone, chat, web, or messanger.	https://www.glia.com/contac t-us
ID.me	ID.me is an American online identity network company that allows people to provide proof of their legal identity online. ID.me digital credentials can be used to access public services, health care logins or retailer discounts. The company is based in McLean, Virginia.	https://help.id.me/hc/en-us
Lithuania		
Vinted	Vinted was founded in 2008 in Vilnius and trades second-hand clothing. The attraction and success of funding has	http://www.vinted.com/app

Nord Security	allowed the company to expand in other countries and diversify its supply by selling not only second-hand clothing but also electronics. In 2012, <i>Vinted</i> teamed up with Lemon Labs, a Lithuania-based app development consulting company, to launch its mobile app. <i>Vinted</i> became Lithuania's first technology unicorn in 2019, with <i>Vinted</i> buying Danish rival <i>Trendsales</i> in 2024. Vinted operates in twenty-one country and has more than 65 million registered users. Vinted has been under the supervision of French, Lithuanian and Polish data Protection Supervisors (SA) in since 2021 following numerous complaints of irregularities and questionable user account blocking practices, which resulted in a fine of €2,375,276 for the company. <i>Nords Security</i> was founded in 2012 to provide a widely available Internet security and privacy tool. The company operates in 20 countries around the world and employs 1,700 individuals. Its products are used by users around the world, including companies such as Calendly, Adobe,	contact@nordsec.com
	Shutterstock and Vinted. Nords Security is one of the world's leading providers of digital security and privacy solutions to companies and individuals.	
Latvia		
Printful	Printful Inc. is a U.Sbased printing, sewing and shipping outsourcing company affiliated with friends of Latvian business group Draugiem Group. Founded in 2010. Printful prints and sews products on orders and ensures they are delivered. The company offers integration with ecommerce platforms by automating product creation, order receipt and fulfillment, and customers have the ability to determine delivery costs online. Printful provides integration with various ecommerce platforms and services.	https://www.printful.com/contacts

Finland		
Finland Oura	Oura is a smart ring manufacturer for health, sleep and activity tracking. The smart ring uses a combination of sensors and technology to track activity data such as heart rate, variability, temperature, blood oxygen levels, respiratory regularity, high focus is also placed on sleep quality measurements – sleep time, body temperature, night movements and more, and enables you to share health and	https://ouraring.com/busine ss
	activity data with other Oura users.	
RELEX	It is a cloud-based platform that offers ERP (Enterprise Resource planning) software solutions – a supply chain planning tool – to retail companies. Its solutions include demand forecasting, automated replenishment, inventory planning, space planning, workforce management and more.	https://www.relexsolutions.c om/contact/
HMD Global	A Finnish-based company that develops mobile phones, smartphones and tablets under the Nokia and HMD brands. It was founded in 2016. Headquartered in Espoo. The company is owned by private equity fund <i>Smart Connect LP</i> .	https://solutions.hmd.com/c ontact-us
Supercell	A mobile game developer focused on mid- level games. Games are available on iOS and Android platforms. It profits through in-app purchases and ads. The company was formed in 2010 in Helsinki, Finland, with offices in San Francisco, Tokyo, Seoul and Beijing.	media@supercell.com

Important advantages of Estonia for the successful development of the startup movement are political leadership, Skype success story and national culture. Estonia has set up a successful e-government system, introduced e-elections, e-health system and e-signature. One of the reasons why Estonia developed a strong culture of investment and startups faster than Latvia and Lithuania was the success story of Skype, which created the next success stories, inspiring and showing that small Baltic companies also have the opportunity to conquer the world. Close cooperation between academia and industry is one of the cornerstones of Estonia's innovation policy. A good education system, modern labs and streamlined science administration have made Estonia the birthplace of 21 st century success stories.

Estonia's advantages for the successful development of startups and unicorns are the education system, which offers children from the pre-school level to acquire digital skills, robotics, creative thinking. Factors contributing to attracting external capital are smart, creative people, successful ecosystem, digitisation, collaborative skills, low bureaucracy, research and development in partnership with universities, the will of citizens, enthusiasm, predictability, innovative thinking and high IT and technology skills. State and local governments play an important role and influence the development of startups and unicorns in Estonia by building education system, legislation, tax policy, low bureaucracy, digitalisation.

6.2. Evaluation of startups in Zemgale region

Startin.lv datu bāzē ZPR reģistrēti 17 jaunuzņēmumi, no kuriem divi 2024. gadā likvidēti (SIA "Akountly" un SIA "NAVITech"), bet vienam ir maksātnespējas process (SIA "Nordic Food"). Līdz ar to turpmāk tiks analizēti 14 aktīvie jaunuzņēmumi Zemgales reģionā.

Daži uzņēmumi to pastāvēšanas laikā ir mainījuši juridiskās adreses – trīs uzņēmumi no Rīgas uz Zemgales reģionu, viens no Zemgales reģiona uz Rīgu.

Startin.lv database shows that 17 startups are registered in the ZPR, two of which were liquidated in 2024 (Akountly, Ltd. and NAVITech, Ltd.), while one sturtup is going through the insolvency proceedings (Nordic Food, Ltd.). Consequently, 14 active startups in the Zemgale region will be analysed further.

Table 6.2. List of startups in Zemgale region (Startin.lv data)

Startup company	Industry	Year of	Legal address 2024
		foundation	
AJELIX, Ltd.	Al	2023	Aizkraukles Municipality, Aizkraukle,
	B2B, B2C		Lāčplēša Street 5, LV-5101
Barboleta, Ltd.	HealthTech, Mobile	2017	Jelgava, Kooperatīva Street 2 - 9, LV-3003
	Арр		
	B2B2C		
RedFrog, Ltd.	AR, Social	2022	Jelgava Municipality, Cenu Rural Territory,
	Networking		Āne, Muižnieku Street 18, LV-3043
	B2C		
PrintyMed, Ltd.	MedTech B2B	2023	Jelgava Municipality, Cenu Rural Territory,
			"Tomiņi", LV-3018
RocketGrip, Ltd.	SportsTech	2017	Jelgava Munic., Cenu Rural Territory, Āne,
	B2B, B2C		Celtnieku Street 30, LV-3043
Latvia Energetics,	Energy	2021	Jelgava, Svētes Street 24 - 4, LV-3001
Ltd.			
ELIGENT, Ltd.	Robotics B2B	2018	Jelgava, Loka Motorway 11 - 25, LV-3004
Algae Tree, Ltd.	BioTech, NanoTech,	2022	Jelgava, Kronvalda Street 5 - 1, LV-3002
	HealthTech		
	B2B, B2C		

Startup company	Industry	Year of foundation	Legal address 2024
MonaTek, Ltd.	PropTech, IoT, Energy B2B	2021	Riga, Elizabetes Street 51 - 9, LV-1010
Sebelo, Ltd.	IoT, Security, GreenTech B2B, B2C, B2G	2021	Aizkraukle Municipality, Nereta Rural Territory, Nereta, Dārza Street 7, LV-5118
NORD MADE, Ltd.	Foodtech, Mobile App B2B, B2C, Marketplace	2020	Jelgava, Ziedoņa Street 7, LV-3002
Adventum Tech, Ltd.	Construction, Security B2B	2020	Jelgava Municipality, Svētes Rural Territory, Atpūta, Mežmalas Street 26, LV-3008
Brand On Demand, Ltd.	PaaS, FoodTech B2B, Marketplace	2020	Jelgava, Peldu Street 7, LV-3002
JEFF, Ltd.	FinTech, Big Data Marketplace	2019	Jelgava, Viktorijas Street 25, LV-3001

ZPR startups are relatively new and most of them were founded in the last four years (Figure 6.4.).

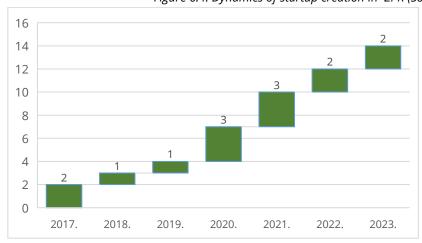


Figure 6.4. Dynamics of startup creation in ZPR (Source: Startin.lv)

Most startup companies in Zemgale region are 3–5 years old (Figure 6.5.).

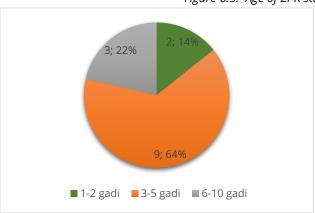


Figure 6.5. Age of ZPR startups (Source: Startin.lv)

According to the Startin.lv database, the economic performance of ZPR startups was with great differences between them in 2022, nor are data available for all companies. Eight of the region's 14 startups worked at a loss in 2022, which is not unusual in the development phase of startups. Most startups employed up to four employees. Only two companies had more than 20 employees. Turnover figures also varied widely from EUR 100 to more than 0.5 million. In 2022, the total turnover of ZPR startups amounted to EUR 7.85 million; total contributions to the national budget amounted to EUR 756,000.

"Jeff" Ltd. is a startup company of the Zemgale region, founded at the end of 2019, which started its operations in Vietnam in 2020. "Jeff" has created a solution to help bridge the gap between large underserved customer segments and financial service providers. This platform provides increasingly competitive opportunities for loans to the traditionally disadvantaged population. "Jeff" achieves this by creating a customer evaluation system based on alternative data, for example, on user behavior, device metadata, from telecommunication operators, etc.

Since starting operations in Vietnam in 2020, "Jeff" has expanded to other markets, including the Philippines, Mexico and Indonesia. Since its inception, the company has enabled more than six million people to apply for more than 60 million financial products. The company's revenue increased to 10 million dollars in 2023 and "Jeff" has reached profitability. Achieving profitability combined with new financing marks an important turning point in the company's development.

7. Ecosystem Actors in Zemgale Region

7.1. Mapping of startup ecosystem actors/stakeholders

The first step in mapping the actors/stakeholders of the ZPR startup ecosystem was to identify stakeholders. All persons, groups and organisations affected or likely to be affected by the development of startups/unicorns at national, regional and local level were identified. A list of the identified is summarised in the table below.

NATIONAL LEVEL

Ministry of Economics of the Republic of Latvia (MoE)

Ministry of Agriculture of the Republic of Latvia (MoA)

Ministry of Welfare of the Republic of Latvia (MoW)

Ministry of Smart Administration and Regional Development of the Republic of Latvia (VARAM)

Ministry of Finance of the Republic of Latvia (MoF)

Central Finance and Contracting Agency (CFLA)

Investment and Development Agency of Latvia (LIAA)

State Development Financial Institution Altum, JSC (ALTUM)

Latvian Chamber of Commerce and Industry (LTRK)

State Employment Agency (NVA)

Employers' Confederation of Latvia (LDDK)

Latvian Startup Association "Startin.LV" (Startin.lv)

Latvian Private Equity and Venture Capital Association (LVCA)

Society "Latvian Business Angels Network" (LatBAN)

Society "European Digital Innovations Hub"

Society "Latvian IT Cluster"

Foundation "TechHub Riga"

Latvian Blockchain Association (LBAA)

Latvian Blockchain and Cryptocurrency Union

Rural Support Service (LAD)

Social Entrepreneurship Association of Latvia (SEAL)

EIT Food Hub Latvia (LBTU)

Latvian Rural Advisory and Training Centre (LLKC)

LBTU Technology and Knowledge Transfer Office (TEPEK)

LBTU Horticulture Institute

LBTU Agriculture Institute

Forest and Wood Products Research and Development Institute, Ltd. (MeKA)

REGIONAL LEVEL

Zemgale Planning Region (ZPR)

Zemgale Business Support Centre (ZUC)

Regional Contact point of the European Centre for Digital Innovation in Zemgale (EDIC)

Zemgale Region Human Resource and Competences Development Centre (ZRKAC)

LBTU Student Business Incubator

LOCAL LEVEL

LIAA representation offices in Jelgava, Bauska and Jekabpils

Society "Rural Partnership "Lielupe""

Aizkraukle NGO Centre Association structural unit "Rural Development Partnership "Vidusdaugava""

Society "Bauska Region Rural Partnership"

Society "Aizkraukle Region Partnership"

Society "Dobele Region Rural Partnership"

Zemgale Municipalities

Jelgava City Municipality

Dobele Adult Education and Entrepreneurship Support Centre (PIUAC)

Bauska Region Entrepreneurship and Competence Development Centre

Latvian Rural Consulting and Education Centre, Ltd. offices in Aizkraukle, Bauska, Dobele, Jekabpils, Jelgava

Bauska Industrial and Logistics Park

Industrial areas in Aizkraukle and Aizkraukle Industrial Park

Industrial areas in Jēkabpils

Industrial Park "Nākotne", Jelgava Region industrial areas

NP Jelgava Business Park

Lielupe Industrial Park

7.2. Impact assessment

When **stakeholders** were identified, it was important to assess their impact and interest in the development and growth of the startup/unicorn ecosystem. A stakeholder matrix was used for this purpose. This matrix helps to categorise stakeholders depending on their impact and interest in the development of the start-up ecosystem.

The stakeholders' interests and impact assessment of the startup ecosystem were carried out by 13 ecosystem participants during a workshop. Participants in the seminar assessed both the development of startups in the ZPR and the development of ambitious unicorns in the region. On the basis of the analysis, stakeholder priorities were identified. Who has the biggest impact? Which stakeholders should be regularly involved in decision-making processes and for whom case-by-case information is sufficient? Such prioritisation is important for efficient use of resources.

Assessing the impact and interest of stakeholders and those involved in the ZPR startup ecosystem, a mapping or impact-interest matrix was developed, placing each actor in one of the four quadrants depending on their impact and level of interest (on a scale of 0 to 3).

When planning and implementing ecosystem development tasks for start-ups in Zemgale, account should be taken of the different communication approaches associated with each of the stakeholders, broken down by quadrant. The most important work needs to be done with those stakeholders with a high level of interest and influence. Their

interests should be regularly clarified, information provided, cooperation developed and actions taken in accordance with the instructions or needs of these actors. Less attention should be paid to those actors with the lowest interest and influence in the management of stakeholders.

In the matrix, stakeholders are allocated to **four quadrants**:

- High impact, high interest: close engagement. Stakeholders with a high level of
 impact and interest are seen as key stakeholders whose expectations for the
 development of the startup ecosystem need to be carefully managed. This means
 they need to be met more often than a low-impact stakeholder group. Their
 feedback is essential for any decision.
- **High impact, low interest: regularly inform and actively consult.** If the person concerned has a high level of influence, but not that much interest, they must be satisfied. This means they need to be informed regularly and their feedback is important. What concerns interest, their specific list of interests is also important.
- Low impact, high interest: active information and participation. Almost any stakeholder has the potential to become an actor of the ecosystem with higher or great impact.
- Low impact, low interest: a little attention is needed. Stakeholders should be kept in sight and informed if necessary.

Stakeholder analysis is not a static process. The situation is changing, just as the interests and influence of stakeholders are changing. It is therefore important to regularly review the analysis and strategy and to adapt them if necessary. New stakeholders may be added, others may become less important – these changes need to be continuously monitored.

7.2.1. Assessment of the Startup Development Impact and Interest in Zemgale region

Practically all members of the national level startup ecosystem, according to expert judgements, have a major influence to a greater or lesser extent and a high interest in the development of startups in ZPR, with the exception of NVA, which has little influence and little interest. However, according to expert judgements, six participants have the greatest interest and influence:

- Investment and Development Agency of Latvia (LIAA);
- State Development Financial Institution "Altum", JSC (ALTUM);
- Society "Latvian Business Angels Network" (LatBAN);
- LBTU Technology and Knowledge Transfer Office (TEPEK);
- Latvian Startup Association "Startin.LV";
- Society "European Digital Innovations Hub".

High influence and high interest means close involvement in the development of startups in Zemgale Region. These players need to be met more often and their feedback is essential for any decision.

The Ministry of Agriculture (ZM), the Central Finance and Contracts Agency (CFLA), the Employers' Confederation of Latvia (LDDK) have less interest and influence, which are also in the group "big influence and big interest" according to experts, and with which cooperation in promoting the development of startups in Zemgale region may also be less intense. See Figure 7.1.

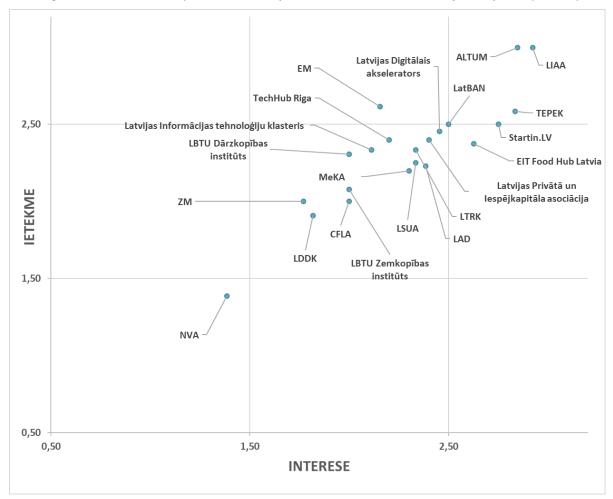


Figure 7.1. Interest and impact assessment of national level actors in the ecosystem of startup development

Practically all members of the regional and local startup ecosystem also have, according to expert judgements, more or less a large impact and a high interest in the development of startups in the LPR. Five members of the regional and local startup ecosystem have the greatest influence and interest, according to experts:

- Regional Contact point of the European Centre for Digital Innovation in Zemgale (EDIC);
- Zemgale Business Support Centre (ZUC);
- Society "Rural Partnership "Lielupe"";

- Zemgale Planning Region (ZPR);
- Zemgale Region Human Resource and Competences Development Centre (ZRKAC).

These actors should develop close cooperation in fostering the development of startups in the region.

The impact of the other participants has been assessed at the same level, there is a difference in interest. The lowest level of interest has been assessed for the municipalities of Zemgale, Jelgava City Municipality, the "Rural Development Partnership "Vidusdaugava", the offices of Latvian Rural Advisory and Training Centre, Ltd., the society "Aizkraukle Region Partnership". They are actors of the startup ecosystem to work with and promote the cultural interest of startups. See Figure 7.2.

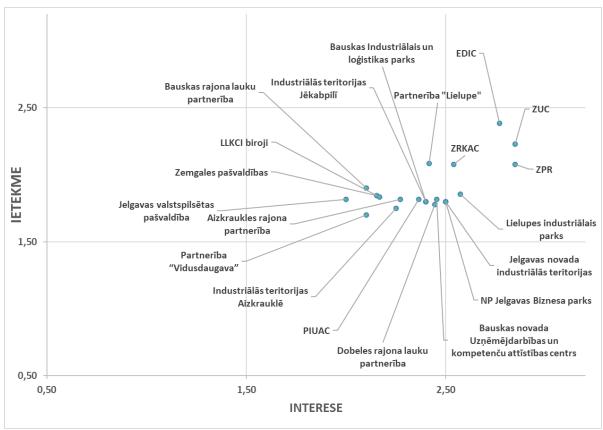


Figure 7.2. Interest and impact assessment of regional and local actors in the innovation ecosystem

7.2.2. Assessment of the Impact and Interest of Unicorn Growth

Similarly to the development of startups, practically all actors of the ecosystem at national level, according to expert judgements, have a large influence and a large interest in the development of unicorns in Zemgale Region, except the NVA. According to expert judgements, two actors have the greatest interest and influence in unicorn development,

whose expectations regarding unicorn growth in the Zemgale Region need to be carefully managed:

- Investment and Development Agency of Latvia (LIAA);
- State Development Financial Institution "Altum", JSC (ALTUM).

The following ecosystem actors have less interest and influence in unicorn growth according to expert judgement:

- Ministry of Agriculture of the Republic of Latvia (MoA);
- Rural Support Service (LAD);
- Latvian Rural Advisory and Training Centre (LLKC);
- Social Entrepreneurship Association of Latvia (SEAL);
- Employers' Confederation of Latvia (LDDK);
- LBTU Agriculture Institute;
- LBTU Horticulture Institute.

These ecosystem actors are, according to experts, in the "High impact and High interest" group, with which cooperation in promoting the development of unicorns in Zemgale Region may be less intensive. See Figure 7.3.

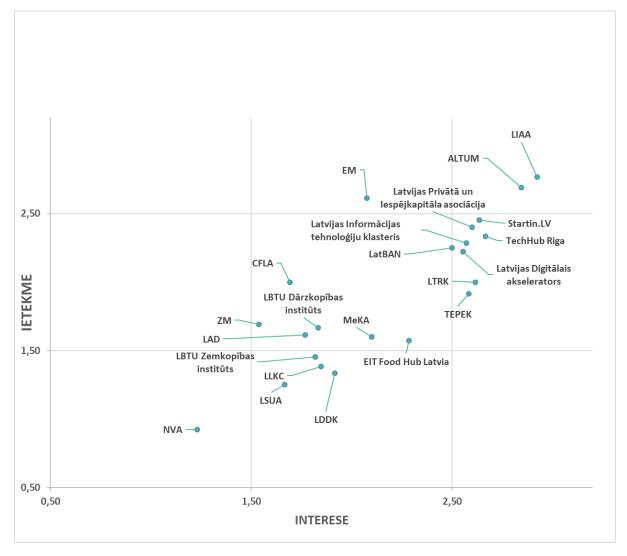


Figure 7.3. Interest and impact assessment of national actors in the unicorn development ecosystem

Practically all members in the regional and local startup ecosystem also have, according to expert judgements, more or lesst significant influence and high interest in the development of unicorns in the Zemgale region. Four members of the regional and local startup ecosystem have the greatest influence and interest, according to experts:

- Zemgale Business Support Centre (ZUC);
- Zemgale Planning Region (ZPR);
- Regional Contact point of the European Centre for Digital Innovation in Zemgale (EDIC);
- Zemgale municipalities.

Other members of the ecosystem, despite being in the "Big influence and big interest" group, have less impact and are members of the unicorn ecosystem to work with and promote the cultural interest of startups. See Figure 7.4.

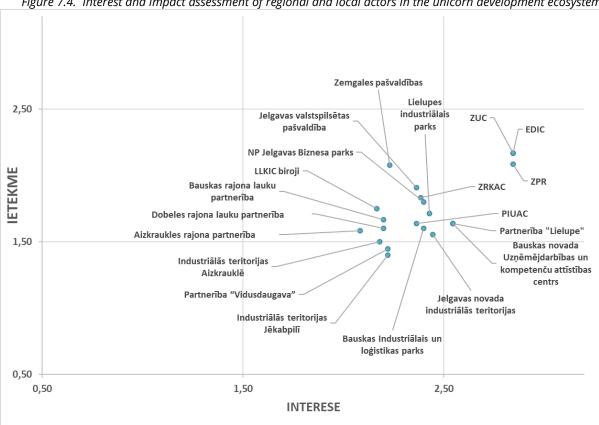


Figure 7.4. Interest and impact assessment of regional and local actors in the unicorn development ecosystem

7.2.3. Summary of workshop results

In the working groups, the participants of the workshop analysed and sought solutions to factors influencing the development of startups identified during the study, such as:

- susceptibility young entrepreneurs;
- international cooperation and networking;
- lack of talents;
- involvement of local governments.

Entrepreneurial susceptibility

A number of problems were identified with regard to this topic. For example, the lack of susceptibility of operators to use aid when applying for it requires the completion of a certain form of documentation. At the same time, businessmen are ready to "pique" the idea. Companies lack the ambition to shift the level of the local market. The culture of start-ups has not been developed in the region/Latvia. Entrepreneurs do not want to take on new commitments and risks, etc.

Options that could facilitate susceptibility could include simplifying bureaucratic processes and applications for support (e.g. optimal 2 pages). Providing a wider range of consultation options. The LIAA business pre-incubation and incubation program participants are provided with access to the mentor network "Mentors for business growth". The programme could be offered to a wider range of young entrepreneurs than currently, thus providing mental support, even if implementation of the idea is not successful.

More attention should be paid to promoting entrepreneurship for the international market already in educational institutions, including creating small incubators in schools, organising various excursions, for example to IDAL representations, companies. Educate, inform the public more about start-ups (video stories, podcasts, etc.). Create the "Startup of the year" award in the nomination. Implement events – Business night, experience stories. Set up business support groups and a support network in case the company fails.

International cooperation

With regard to this topic, the following problems were identified: insufficient international experience and regional support, correct use of international terminology; lack of support from political and senior management to strengthen the capacity of specialists; young entrepreneurs lack international experience.

Solutions that could facilitate international cooperation could include the use of programmes for international experience, including the education of political leadership; embracing the culture of international startups; more sharing with startups on knowledge gained from international experience programmes. It would also be useful to represent ZPR in working groups in the MoE etc. Inviting representatives of the MoE and other institutions to regional working groups to discuss the role of each institution in the development ecosystem of start-ups, including current developments. Building the capacity of public sector workers who are in direct contact with economic operators.

Lack of talents

With regard to this topic, the following problems were identified: entrepreneurs believe that Latvia has few talents; the development of talent is not sufficiently early (at school); these issues are not sufficiently promoted throughout life, because middle-aged people also often decide to make cardinals, including entrepreneurship.

Solutions that could contribute to the development of talent could include empowering children and young people to gain professional experience in the company as early as their choice of profession; development of work culture, responsibility and attitudes towards work in children and young people. Involvement and education of parents to promote the entrepreneurship and talent development of children and young people.

Involvement of local governments

With regard to this topic, the following problems were identified: insufficient capacity of business specialists (lack of human resources) and lack of resources for building communication and cooperation between state and local government institutions, NGOs and entrepreneurs.

In order to promote greater involvement of local governments, it is necessary to understand what communication and cooperation entrepreneurs want from local governments; it is necessary to create a database of enterprises in order to communicate more successfully and purposefully with participants, including taking into account the channels to be used to address entrepreneurs. It is necessary to inform entrepreneurs more about the possibility - grants, available assistance, etc. Continuity of communication is essential. There needs to be a network of contacts for the business professionals themselves. Clear action algorithm needed: who to call when there are questions (for example, if an entrepreneur is looking for land/real estate, but no information is available.

8. National, regional and local policies

The objective of the Latvian Start-up Ecosystem Strategy 2022–2025 is to promote economic development of the startup sector and attraction of foreign investments to start-ps, as well as development of investor movement in Latvia, financing for development of the ecosystem, as well as to promote strong and unified development of the ecosystem. In cooperation with the participants of the startup ecosystem, the objectives of the coming years, the resulting priorities for achieving the objectives, the tasks and activities to be implemented and the performance indicators for the promotion of the growth of the Latvian startup ecosystem have been developed. The results to be achieved in 2025 are:

- Investment attraction in startups by 300 million EUR.
- Increase in the number of employees in startups by 1,500.

In order to achieve the two objectives set, the following main lines of action are defined:

- Increase the number of competitive startups in Latvia.
- Increase the amount of investments attracted by startups.
- Ensure cooperation, visibility and sustainability of the Latvian startup ecosystem.

In approving the Strategy for the Development of the Start-up ecosystem 2022-2025, the institutions involved have signed a Memorandum of Cooperation on the implementation of the Strategy. The ZPR has so far not developed a separate support programme for startups, but the ZPR Development Programme 202–2027 includes a number of actions to ensure the conditions for the development of startups:

 Individualisation of the education process and cross-sectoral cooperation for educational excellence, development of learner innovation, technology skills and creativity, including wider integration of entrepreneurial competence, entrepreneurial capacity development into the learning process from pre-primary education to lifelong learning.

In order to promote the development of talent, it is necessary to promote the creation and accessibility of education offering developing the innovations, technology skills and creativity of educatees:

- mainstreaming entrepreneurial competences, entrepreneurial capacity development in the learning process from pre-primary education to lifelong learning;
- o promote the development and accessibility of education offering that develops learners' innovation, technology skills and creativity. Develop educational institutions as innovation networking centres in Zemgale;

- development and availability of diverse and modern vocational education, non-formal education and interest education (including technical creativity, STEM/STEAM, robotics, programming).
- Promote a culture of longevity and strengthen the importance of adult education, linking its offers to the needs of the economy, in accordance with the economic specialisation of the region, thus creating the skills and competences necessary for the development of the region.
- Development of research and scientific potential, including cooperation for the
 development and establishment of RIS3 research and innovation centres of
 excellence in ZPR (knowledge-intensive biokenomics, smart materials, energy
 efficiency technologies, creative industries, etc.), developing centres of excellence
 also in other fields of RIS 3, rising management and analytical capacity.
- Promote the development of a business-friendly environment by arranging business infrastructure in municipalities and coordinate the cooperation model of *penta helix*. (Penta helix is a five-party collaborative model that is consistent with the principle of open innovation. Five parties are 1) state/local governments, 2) entrepreneurs/business environment; 3) scientists and educational environment, 4) social entrepreneurs and/or non-governmental sector and 5) civil society or population).
- Development of a business-friendly environment and infrastructure alignment, including promotion of entrepreneur-reaching digital skills building, a supportive environment for the deployment of digital technologies, artificial intelligence and robotics solutions.
- To coordinate closer cooperation between entrepreneurs and scientists and promote knowledge transfer and innovations in Zemgale economic specialisation and RIS 3 sectors.
- Strengthening capacity to attract investment and financial capital.
- Promote cooperation between entrepreneurs and increase competitiveness of entrepreneurs in Zemgale by successfully integrating into global value chains (Zemgales plānošanas reģiona attīstības programma 2021.-2027. gadam).

9. Examples of good practice

Examples of good practice and initiatives from Latvia and the Zemgale region that promote the development of start-ups.

"Business Night 2024" in Zemgale"

Short summary of the practice: Business Night is a 3-day hackathon for secondary and vocational school students in the Zemgale region who want to develop their initiative, strategic planning, problem solving and decision-making skills.

Detailed information on the practice: Business Night tackles key issues in youth entrepreneurship and innovation, enhancing skills like strategic planning and problem-solving. This three-day hackathon brings together students and industry experts to foster practical experience and networking. Participants work in teams, mentored by professionals, to create and pitch business ideas, with the best awarded monetary prizes. It promotes sustainable business practices and creative thinking, crucial for modern market demands. Key stakeholders include students, educational institutions, local businesses, and municipalities, benefiting from this collaboration and the positive impact on regional development. The event is supported by sponsors who value sustainable entrepreneurship and education, enhancing their public image.

Timescale: March 21.-23., 2024

Resources needed: Business Night was funded by EEA and Norway Grants, with a total budget of 19,300 euros. The event team comprised 13 volunteers, 5 tech supports, 10 organizers, alongside with 10 industry experts and 4 jury members. Local businesses sponsored additional prizes, with the top 3 business ideas awarded € 500 each.

Evidence of success: Business Night is praised for its tangible contributions to fostering youth entrepreneurship and innovation. Over its four-year run, the initiative grew significantly, culminating in 80 talented participants in 2024. Key outcomes include the recognition and financial awards given to the best business ideas, such as "Bio Pods" which use leftover breakfast cereal by-products to create biodegradable plant pots. The event's growing participation and positive feedback indicate its effectiveness and appeal. Participants gain critical modern workforce skills such as problem-solving and teamwork, which are essential for their future careers. Moreover, the initiative significantly influences regional economic development and strengthens the business environment.

Challenges encountered: Business Night, like any other similar initiative, faced several challenges: securing sufficient funding to cover costs, attracting and motivating youth in a competitive entertainment and education landscape, and managing resources and timing effectively. Ensuring long-term impact on participants' careers and regional

economic development also proved challenging, requiring strategies to maintain contact with participants and monitor their progress.

Zemgale Business Centre as a part of European Digital Innovation Hubs network

Short summary of the practice: Zemgale Business Support Centre, as part of the European Digital Innovation Hubs network, fulfils the role of being a digital development guide for Zemgale entrepreneurs. It helps promote the digital transformation of companies, supports the improvement of existing business processes, and facilitates the implementation and development of digital solutions.

Detailed information on the practice: Within the project "EDIC: Support for Digitalization and Artificial Intelligence Development in Latvia/Development of AI – ICT for Manufacturing EDIH in Latvia" (EDIHLV) (project No. 101083983), the Zemgale Business Support Centre of the Zemgale Planning Region acts as a contact point for entrepreneurs. It provides consultations on business process digitalization and organizes educational and informative events on digital transformation. EDIC helps evaluate existing business processes and offers recommendations for their improvement using both new and market-existing technologies. EDIC recommends potential technology suppliers, giving businesses, institutions, and organizations the opportunity to initially test the suggested and market-demanded technologies. If necessary, clients can receive consultations from industry experts, ensuring confidence in technological possibilities. EDIC provides entrepreneurs with consultations and develops Digital Development Roadmaps to obtain funding from the EU's "Digital Europe 2021-2027" program and the Recovery Fund under the Latvian Recovery and Resilience Mechanism.

Timescale: December 2022 – August 2025

Resources needed: The total planned budget for the Zemgale Planning Region as a partner is 121,980.00 euros. This amount includes all project implementation costs, including all applicable taxes (except VAT), personnel costs, all necessary license fees, and all indirectly related costs for meeting project requirements (e.g., printing, transportation services, etc.). To implement the good practice, two employees are currently employed, one full-time and one part-time.

Evidence of success: The success of the Zemgale Planning Region as an EDIC contact point is evidenced by the large number of applications from regional companies, currently totalling 176. Additionally, in 2024, 100 roadmaps were issued in our region, and 1,840 projects have been promoted for funding across Latvia.

Challenges encountered:

- Lack of understanding by entrepreneurs about digital transformation and its impact on business development. Some companies are "afraid to step out" of their comfort zone and see digital solutions as a burden rather than an opportunity.
- Entrepreneurs implement solutions only because support is available, without understanding the planned solution's impact on their business. Implementing a solution can create a new "bottleneck" in another business process.
- Understanding digital transformation as the long-term development of business processes.

Business incubation support for Small and Medium-Sized Enterprises (SMEs)

Short summary of the practice: Investment and Development Agency of Latvia (LIAA) supports new companies to boost innovation, growth, and exports, including dual-use products for both civil and defence purposes.

Detailed information on the practice: The practice of business incubation support by the LIAA addresses the challenge of enhancing the competitiveness and survival of new companies in innovation, technology, and dual-use product sectors (goods and services for both civil and defence purposes). This need emerged from Latvia's goal to foster a knowledge-based economy, promote export growth, and strengthen its global market position.

The practice reaches its objectives by providing financial grants, mentorship, and technical assistance, allowing startups to develop viable products, refine their business models, and scale into international markets. The support includes access to training and lectures in RIS3 fields (research and innovation strategies for smart specialisation), which help companies innovate and stay aligned with key economic growth sectors. Additionally, the program provides access to coworking spaces, helping startups reduce costs and avoid renting traditional office space. This flexible working arrangement fosters collaboration and networking opportunities within the startup community.

The main stakeholders are government bodies, industry experts, investors, and academic institutions, while the primary beneficiaries are startups and SMEs working in innovation-driven sectors, particularly those focused on exportable goods or dual-use technologies. Indirectly, the broader Latvian economy benefits from increased innovation and export potential fostered by the program.

Timescale: January 2024 until 30.06.2027 or until funding is available

Resources needed: The business incubation program is funded by both national and EU sources, with a total of 33.31 million euros in aid for entrepreneurs. It is implemented through 22 regional offices across Latvia.

Evidence of success: Between 2016 and 2023, Latvia's incubation program supported 921 companies, offering 7450 financial grants and creating 2568 new jobs. The program generated a total turnover of 379.5 million euros, with an export volume of €216.9 million, representing 57.1% of the turnover. This initiative significantly boosted entrepreneurship and economic growth, positioning Latvia as a rising hub for innovation and business development.

10. Conclusions and recommendations

10.1. Conclusions

Based on the analysis of the documents collected during the research and the experience of other countries, the opinions heard and the results of the discussions, it can be concluded that the following prerequisites exist for successful development of the startup ecosystem:

- Accurate understanding of development planning specialists and policymakers about the interest and influence of participants/stakeholders on the development of the startup/unicorn ecosystem, which is essential for the development of a focused communication strategy for each of the ecosystem's participants.
- Promotion of start-up culture and success stories in society, especially for SME program participants. It creates the image of a startup as a viable business, inspiring and demonstrating that even small businesses can conquer global markets.
- Startup communities and networking opportunities (both physical and digital) are vital to the ecosystem. In order to provide the necessary support for startups, public and private sector cooperation is recommended.
- Close cooperation between academia (scientists) and specific industries (entrepreneurs). In this context, not only cooperation is essential, but constant mutual exchange of information on current events, research results, product testing results, etc.
- Digitization of processes used in companies and increasing productivity, which is
 essential in the development and expansion of the range of various technologies,
 digital solutions and services.
- Global thinking and ambitious goals, which are essential already at the initial stage of the company's development, considering Latvia's small internal market.
- An education system that offers children from preschool to learn digital skills, robotics, creative thinking, thus developing talents and entrepreneurial skills.

Startups and unicorns are hindered by:

- Limited opportunistic capital: the local opportunistic market is small, and international investors are more interested in larger market areas such as the US and Asian markets.
- Limited human resources potential: Latvia lacks highly qualified employees, especially in the field of technologies (programmers, data analysts, Al specialists).
- Insufficient development of new skills: the education system does not focus enough on the digital and entrepreneurial skills needed for the development of startups.

- Tax system: although some tax incentives have been created for start-ups, their
 availability and application are difficult and insufficiently effective. For example,
 only half of all start-ups have used LIAA support for attracting highly qualified
 workers, fixed tax payment and personal income tax credit.
- Complexity of support procedures: according to the opinion expressed by the
 involved parties during the workshop, the procedures for receiving state support
 are often too complicated and require a lot of time to prepare the necessary
 documentation, in addition to that, the bureaucratic language in communication
 and documentation often discourages entrepreneurs from wanting to use these
 support measures.
- Weaknesses in cooperation with universities: As the main barriers that prevent cooperation between universities and companies, entrepreneurs point to a lack of information about cooperation opportunities, a lack of company and state funding to promote cooperation, as well as bureaucracy and the ability of universities to manage processes. For example, it often takes a long time until both sides reach a mutual agreement on a specific solution/decision, there is a long process of concluding a contract, a complex agreement on intellectual property rights, universities have difficulty naming specific costs, universities offer a too long execution schedule that does not correspond to market dynamics, universities are more oriented towards research than achieving results and applying them in practice, universities use a lot of academic terms that make communication with entrepreneurs difficult, etc.
- Lack of an organized and coordinated mentoring mechanism and platform that would bring startups together with mentors, involving the best local and foreign experts.

10.2. Recommendations

- The Development Program of the Zemgale planning region 2021-2027 includes a series of actions to ensure prerequisites for the development of startups. Evaluating the information obtained during the research, it can be concluded that the mentioned actions are considered to be relevant and useful for the current situation and it is definitely necessary to implement them in practice.
- To promote startups, a multifaceted approach is needed, which includes not only support measures, but also the provision of a favorable environment for business startup and growth and the promotion of innovation. One of the essential prerequisites for the development of startups is access to private capital, therefore public awareness of investments in startups, risk tolerance, etc. should be more actively promoted.

- It is necessary to organize events for the formation of start-up communities to
 ensure mutual support. Closer cooperation between the public and private
 sectors is recommended in the solution. It would be advisable to offer the LIAA
 mentor program to a wider circle of young entrepreneurs, providing mental
 support even in cases where the implementation of the idea has not been
 successful. It is necessary to organize events, conferences and networking events
 that allow young entrepreneurs to meet investors, mentors and other
 entrepreneurs.
- It is necessary to continue to educate entrepreneurs on process digitization issues.
 By the middle of 2026, more than 950 companies will have the opportunity to participate in extensive training, which will be implemented in cooperation with Latvia's European Digital Innovation Centers (EDIC). EDIC provides/will provide support to companies in the digital transformation process, from a digital maturity test to personalized training and consulting.
- The promotion of startup success stories should be continued, with a special emphasis on the local success stories of the Zemgale region, which would thus show that successful and viable development of start-up companies is also possible in the regions.
- Regularly inform the public about programs of state support measures for startups and regional and local grants and tenders. It is necessary to concentrate all information about the available support together (for example, about the support provided by LIAA, ALTUM, LAD, etc.). Continuity of communication in these matters is essential, as well as timely informing about the opening of new grants and support measures. When characterizing the support, it is necessary to more clearly define and describe in which areas and for which activities the support will not only be provided but also will not be provided.
 - One of the resources that can perform this activity is municipal business specialists. However, the challenge at the moment is the capacity of these specialists.
- Information about various support programs should be simplified, as new entrepreneurs describe it as complicated, especially if they are applying for support for the first time. An information approach that would increase interest to apply for support programs should be developed. It is recommended to create visual materials 'step by step' – how to receive specific support, and place them on the Zemgale Planning Region website in the "Business" section and on the websites of municipalities with links to more detailed information on the website of the support provider.
- It is recommended to create a common digital calendar of Zemgale Region startup ecosystem participants/stakeholders for more effective information exchange, where information would be available on various business events organized in

municipalities, region and at the national level. The calendar should be created in such a way that each participant can see/specify information about planned events, current support programs and get an overview of the activities of other participants. In addition, the calendar should include information on where/to whom entrepreneurs should contact in case of various questions.

- It is necessary to strengthen cooperation between all involved parties, for example by organizing round table discussions science and research, business and municipal and state sectors, in order to promote the development and management of the innovation system, strengthening the knowledge and technology transfer system, creative industries and skills development, in order to promote the transformation of the region's economy and promote the development of priority industries and RIS3.
- Strengthen and develop the development of research and innovation, which drives the development of innovative products and services, commercialization, the development of the region's perspective industries and RIS3, the requirements dictated by climate change. Development of environmentally friendly technologies ("green" technologies), for further application of these technologies in the fields of public services, infrastructure, transport, as well as private business operations. The development of LBTU as a center of excellence, for the development of a knowledge-intensive bioeconomy, for the development of smart materials and technologies.
- The main stakeholders in the development of startups and unicorn ecosystems at the national level, with whom ZPR needs to establish closer cooperation are:
 - o The Investment and Development Agency of Latvia (LIAA);
 - Development Finance Institution Altum (ALTUM);
 - Latvian Business Angels Network (LatBAN);
 - LBTU Technology and Knowledge Transfer Office (TEPEK);
 - Latvian Startup Association Startin.LV.;
 - Digital Accelerator of Latvia.
- The main stakeholders of the development of startups and unicorn ecosystem at the regional and local level, with whom ZPR needs to develop closer cooperation:
 - Regional Contact point of the European Centre for Digital Innovation in Zemgale (EDIC);
 - Zemgale Business Support Centre (ZUC);
 - o Association "Rural Partnership "Lielupe"";
 - Zemgale Planning Region (ZPR);
 - Zemgale Region Human Resource and Competences Development Centre (ZRKAC).
 - o Zemgale municipalities.

- The slightly lower level of interest in the development of start-ups, according to the opinion of experts, is for ZPR municipalities, the offices of Association "Rural Partnership "Vidusdaugava"", Latvian Rural Advisory and Training Centre and the association "Aizkraukle District Partnership". These are the members of the startup ecosystem, with whom we should work additionally in the future and promote the cultural interest of start-ups.
- It is necessary to understand more carefully what the communication and cooperation needs of entrepreneurs with municipalities are, what are the preferred communication channels and forms. At the municipal/regional level, it is necessary to create a database of companies in order to be able to address businessmen more successfully and in a targeted manner, incl. respecting the wishes of entrepreneurs regarding communication channels and type. Local governments need to develop a clear action algorithm, for example, in cases where an entrepreneur has questions about available plots of land/real estate, but the information is not publicly available.
- Local governments need to educate the public more about the importance of startups in the economy. Support and investment in the development of start-ups can become long-term growth engines for municipalities, boosting the local economy, creating new jobs and attracting talent.
- Greater attention to business promotion, incl. to focus on the international market already in educational institutions, incl. creating small incubators in schools / in the space created by ZUC for young people in KOPRADE / Dobele adult education center "Open Lab". Organize various study tours for students, for example to LIAA representative offices, companies. To give children and young people the opportunity to gain work experience in the company even before choosing a profession. To involve and educate parents in the mentioned processes in order to promote the entrepreneurship and talent development of children and young people.

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