

ICT in Latvia

Investment and Development Agency of Latvia

www.investinlatvia.org

2022



Growing Impact of the ICT Industry

Continues development and growth of export-oriented industry

36K ICT specialists

4,3 billion EUR turnover (+5%)

1,4 billion EUR value-added (+11% and 5% of total)

427 million EUR profit (+8%)

49% is exported (1,5 bEUR)

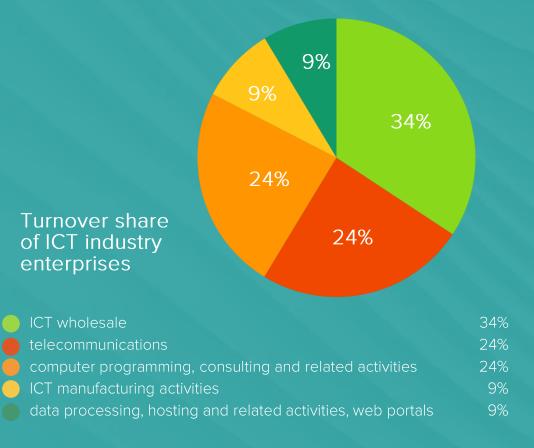
6% share of ICT value-added in GDP (+7%)

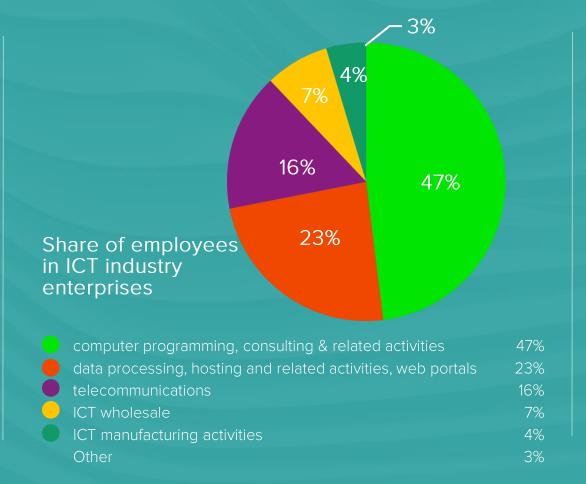
Source: Central Statistical Bureau of Latvia (2021)



Breakdown of the ICT Industry

IT Services and ICT wholesale have the largest portion of the market





Source: Central Statistical Bureau of Latvia (data for 2021)



International Rankings and Infrastructure

Latvia provides world-class ICT infrastructure and secures high rankings in ICT

93%

#6

23% 90%

1st

is the broadband (NGA) coverage, and 71% are fibre connections (OECD & EC, 2020)

in the world in mobile data usage (OECD, 2021) speed (Cable, 2021) in the European Union in Digital public services (DESI, 2021)

Of ICT specialists (Eurostat, 2021)

share of households with Internet access in Latvia in 2020 (CSP, 2020)

5G military test site in Europe



Promising Tech Segments



5G and loT

with local worldclass hardware and software developers LMT, SAF, MikroTik and others.



Smart City

Riga provides three test zones for smart city pilot project development and testing in cooperation with leading universities.



UAV and Aerospace Technologies

Latvia is the member of the European space agency since 2020.



Biotech and medtech

Latvia is the leader in Life Sciences among Baltic



IT and Business Services

Riga is the most dynamically developing city in the CEE for business service centres.



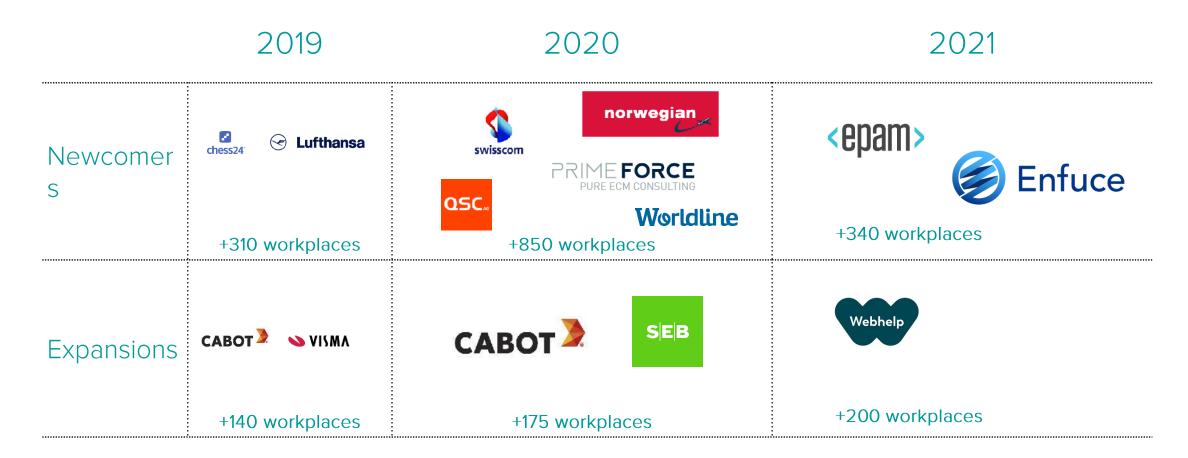
Fintech

Both the Bank of Latvia and The Financial and Capital Market Commission are welcoming fintech innovations



Notable Newcomers and Expansions

Largest FDI projects in ICT and Business Services in 2019 and 2020





Key Players in IT Services

Leading IT service & solution providers in Latvia

acce	enture	World's leading provider of technology and technology consulting services. Number of employees: 1700 www.accenture.com	DYNATECH	Develops custom and innovative IT solutions for complex business challenges that have companies worldwide. Number of employees: 240 www.dynatech.lv
AT	ΈA	Northern Europe's market leader in IT infrastructure that delivers world class services and software products. Number of employees: 400 www.atea.com	⊚ emergn	An ICT consulting company that provides a range of various IT solution development and implementation across broad range of industries. www.emergn.com
Cog	nizant	The first Cognizant delivery network in Europe, focused on Telecom specifically and IT in general. Number of employees: 250 www.cognizant.com	Evolution Gaming	World's leading B2B provider of video-streamed Live Dealer gaming. Number of employees: 3500 www.evolution.com
	AUGIEM ROUP	Latvian IT company with 11 successful brands that use latest technologies in different industries. Number of employees: 700 www.draugiemgroup.com	tieto <i>Evry</i>	A leading digital services and software company with local presence and global capabilities. Number of employees: 970 www.tietoevry.com



European-oriented IT solutions and service provider that is delivering enterprise solutions for top global clients.

Number of employees: 480

www.ctco.lv



A leading business solution provider in Northern Europe, focusing on business optimisation and management tools for SME's and enterprise companies.

Number of employees: 230

www.visma.com



Expanding Business Service Centres

Untapped opportunities and cooperation between ICT and business services

51+ business services centres with 15 500+ employed and growing

10% annual hire growth rate of the industry

Core functions: IT (58%), finance (50%), business support (38%), logistics (35%)

Main markets: Nordic countries (81%), CEE (62%), Western Europe (58%)



































Business Ready Infrastructure

Professional service providers with certified data centres

TIER III design and facility certified data centres with international network.

VISA / Mastercard PCI DSS Level 1 certificate for Internet commerce, which guarantees and controls electronic transactions online.

Certified **key service providers** with global partnerships:























ICT Community in Latvia

Strengthening and supporting the industry and existing key players



Latvian IT Cluster

Latvian IT Cluster and Digital Innovation Centre is an IT community based organization initiating and leading cooperation of Latvian IT industry, educational institutions, public sector, business and industry associations. It supports Latvian IT companies operating in ICT business sector and acts as a guide for other business sectors' SMEs to promote the digital development of Latvia.

www.itbaltic.com



Latvian Electrical Engineering And Electronics Industry Association (LETERA)

Unites companies, research and educational institutions operating in the fields of electrical engineering, electronics, optical equipment, ICT, defense equipment, aviation and space technology.

www.letera.lv



Latvian ICT Association (LIKTA)

Information and Communication Technology association unites leading industry companies and organizations, as well as ICT professionals.

<u>www.likta.lv</u>



Microsoft Innovation Centre

Strengthens the cooperation between ICT industry, science, NGOs and public sector, in the development of export capable IT solutions and digital transformation (in cooperation with the University of Latvia).

www.lumic.lu.lv/en

ICT Education and Innovation



ICT Education and Innovation

Internationally recognized education to match the demand of the industry

107 higher education ICT programmes

20 000 STEM students (25% of all)

9 000 students in ICT related programmes

1 200 ICT graduates with the goal of 3 000



World-class ICT bachelor programme in cooperation with University at Buffalo and BI Norwegian Business School.



A public-private initiative for IT education promotion in Latvia that brings together top high schools, IT companies and other stakeholders. www.bits.education

Sources:

Ministry of Education of the Republic of Latvia; RTU Riga Business School «Bachelor of IT Leadership»





Evolving ICT Academic Education

Internationally recognized ICT programmes in higher education institutions



Riga Technical University & University of Latvia

Degree awarded: Bachelor of IT Leadership, Computer Science & Organization Technologies www.bitl.lv



Rezekne Academy of Technologies

Degree awarded: Programming Engineer & Professional Bachelor Degree in Information Technology www.rta.lv



Riga Technical University

www.international.rtu.lv

Degree awarded: Bachelor Degree of Engineering Sciences in Computer Control and Computer Science.



University of the West of England (UWE) & Transport and Telecommunication Institute (TSI)

Degree awarded: Bachelor of Computer Sciences (Double Degree) in Artificial Intelligence

<u>www.tsi.lv</u>



University of Latvia

Degree awarded: Bachelor of Natural Sciences in Computer Science.





Turība University

Degree awarded: Professional Bachelor's Degree in Computer Systems (Software engineer)

www.turiba.lv



Ventspils University of Applied Sciences

Degree awarded: Professional bachelor's degree in business management.

www.businessacademy.lv



Liepaja University

Degree awarded: Professional bachelor degree in Information Technology (Software Engineer)

www.liepu.lv



Latvia University of Life Sciences and Technologies

Degree awarded: Professional Bachelor in Information Technologies (Programming Engineer).

www.llu.lv



Vidzeme University of Applied Sciences

Degree awarded: Professional bachelor's degree in information technologies (UX/UI, VR/AR, AI/ML) www.va.lv



Key Players in ICT R&D

Leading public universities and institutes with ICT focus



EDI – Institute of Electronics and Computer Science

Among the highest rated scientific institutions in Latvia specializing in Smart Embedded Cooperative Systems (SECS) in the fields of health, mobility, space, production, digital life, safety and security. EDI has invested several million euros in state-of-the-art equipment, which is used in joint collaboration with 300+ international EDI partners from both academia and industry. 300+ scientific and industrial partners world-wide.

https://www.edi.lv/en/



Riga Technical University

The only polytechnic university in Latvia and the largest university in the country. Its` Institute of Telecommunications has the only study programme in the Baltics that provides the high-quality education and prepares qualified professionals with extensive knowledge of next generation wireless communication systems, fibreoptic transmission systems, microwave and satellite communications and basic programming skills.

https://www.rtu.lv/en



University of Latvia

The University of Latvia is the national and leading higher education institution in Latvia. It's faculty of Computing study programmes are recognized by the Latvian employers and European education experts, having received the "Euro-Inf Quality Label". It offers specialization in computer science, information technology, software engineering, information systems, computer engineering and didactics of computer science.

https://www.lu.lv/en/

Synergy of ICT Industry and Science

Joint research projects and partnerships













Partnership aims to validate the latest 5G features and 3GPP specifications of Connected and Automated Mobility (CAM) through robust evidence and under realistic conditions. Partners from Latvia - EDI, LMT, Pasažieru Vilciens.

www.5g-routes.eu









COMP4DRONES

Particular focus of the project is safe software & hardware drone architectures.

Partners from Latvia - EDI, LMT, University of Latvia.

www.comp4drones.eu



















Integrated Modular Unmanned Ground System (iMUGS)

The project develops a modular and scalable architecture for hybrid manned-unmanned systems: aerial and ground platforms, command, control and communication equipment, sensors, payloads & algorithms. Latvian company LMT will be responsible communications technologies and equipping the autonomous unmanned ground vehicle with mobile technologies to ensure communications across multiple countries.















HumanE-Al-Net

The challenge is to develop robust, trustworthy Al systems that can 'understand' humans, adapt to complex real-world environments and interact appropriately in complex social settings. HumanE-Al-Net will lay the foundations for designing the principles for a new science that will make Al based on European values & closer to Europeans.

Partner from Latvia – Tilde

www.humane-ai.eu



Successful partnerships with RTU

An example of successful ICT projects with Riga Technical University



Accenture and RTU – Virtual twin

An interdisciplinary team of students in cooperation with the information technology company Accenture and Riga Technical University (RTU) will develop a virtual twin for scientists at the Faculty of Electronics and Telecommunications. Students and faculty work together to develop prototypes and ideas for solutions in the fields of bioenergy, wastewater treatment, low-energy buildings, space, sensor technology and robotics.



AFFOC Solutions and RTU – New information transmission technology

Scientists from the Institute of Telecommunications and their partners have created an innovation in ICT that will allow information to be transmitted faster, more securely and further. A whispering gallery fashion microresonator is a glass bead fused to an optical fibre, where the generation of a frequency comb is initiated. Each carrier signal generated by the frequency comb allows replacing a single laser light source, creating a low-cost, energy-efficient solution for data transmission.



LMT and RTU – Industrial PhD study programme

The launch of unprecedented business and science cooperation initiative "Industrial Doctor" to promote the creation of innovations for the Latvian economy. The first two RTU industrial doctoral students have already started working on unmanned aerial vehicles (UAV) and digital road technology research for LMT.



Tet and RTU – Al-based IT monitoring system

Development of a unified AI IT monitoring solution that will simultaneously be able to analyze various IT infrastructure systems, helping to quickly and efficiently detect anomalies and errors. Algorithms are also able to predict potential incidents in the future, which will significantly reduce downtime risks and facilitate investment planning.



ICT Courses and Upskilling

Private sector provides numerous opportunities for ICT skill development



Accenture IT Bootcamp

Bootcamp is the most extensive free IT training in programming and technology consulting in Latvia. www.bootcamp.lv



Riga Coding School

A coding school and IT career centre with more that 26 lecturers and 106 partners. Courses in C#, Java, JavaScript, Python, IT project management, Big Data, SQL.

www.rigacoding.lv





Courses for beginners or intermediate level, and those who are planning to start their career in IT. Courses cover HTML, CSS, JavaScipt, PHP, C#, Java, Web-development



Riga TechGirls & She Goes Tech

A community of female ICT specialists that educate and inspires girls & women about technology

www.rigatechgirls.com and www.shegoestech.lv

Learn IT

www.codelex.io



Interactive coding club for kids and pupil of grades 1 - 9 that aims to develop logical thinking, problem solving and cooperation skills



ROBO HUB

Robotics school based on Lego Education programme for kids age 3-12. The school uses gamification approach to teach the foundations of technologies.

www.robohub.lv



LMT Drone Centre

www.droni.lmt.lv

www.learnit.lv

Drone piloting school by LMT that provides theoretical foundation about drones, regulations, navigation as well as practice in professional drone control.



Start(it)

Social education project with the aim to increase the knowledge and required skills for the IT industry among Latvian population.

www.startit.lv



A Place to Work and Live



VEFRESH Smart City and Innovation District

Leading ICT district that is located in Riga

VEFRESH aims to redevelop VEF district in Riga city as an innovation sandbox where corporations, startups and public sector can prototype and test their latest solutions.

4 000 ICT specialists in VEF area in Riga

40% of all Latvia ICT export

630 mEUR annual revenue

Stakeholders: Riga City Council, Ministry of Economics of Latvia, Accenture, LMT, Jaunā Teika, New Hanza Capital, VEF Kultūras pils.





Availability of Office Space in Riga

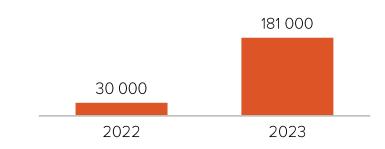
Large-scale A-class office project pipeline for 2022-2023

800 000 sqm A and B class office stock in Riga

1500+ coworking stations

211 000 sqm development pipeline until 2023

Office development pipeline in Riga (sqm)



Source: Colliers International (Q3 2021)





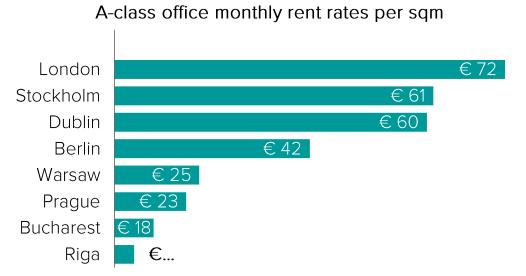


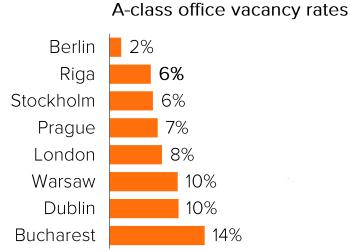




Availability of Office Space in Riga

Nearly 1 million sqm of affordable A and B class office space by 2023





Note: vacancy rate in Riga excluding recently commissioned A-class office center in the large-scale «Z-Towers» project. The average vacancy rate for A and B class offices in Riga is 14.5%.

Source: Colliers (Q4, 2021)



Affordable Housing and Increasing Development

Latvia has the most affordable housing among the Baltic countries

One-bedroom monthly rent in the city centre



Riga ranked #1 in Baltics with highest score in housing availability index (198.5) and with lowest average apartment transaction price in new housing projects (1256 EUR/sqm).

Sources: Numbeo.com, Swedbank Baltic Housing Affordability Index (Q3, 2021)



ICT Labour Cost Overview

Position	Net monthly salary, EUR		Gross monthly salary, EUR		Total monthly costs for the employer, EUR	
IT support specialist	900	1100	1257	1536	1553	1899
Systems Engineer	1400	2100	1968	2988	2432	3693
Systems administrator	1700	2200	2405	3134	2972	3873
Junior Programmer	1650	2100	2332	2988	2882	3693
Programmer	2100	2600	2988	3717	3693	4594
Senior Programmer	2700	3500	3863	5029	4774	6215

Indicated salary levels are related to companies in Riga and available to qualified specialists with good English. Salary levels for similar positions are up to 15-20% lower outside Riga city. There is no premium for English and Russian language knowledge.

Source: Manpower Latvia (2021)



Events and Networking

A list of a must-visit ICT and startup events in Latvia



5G TECHRITORY

World's leading annual 5G conference that takes place in Riga, and brings together world's industry leaders and policymakers. www.5qtechritory.com



Riga Dev Days

A conference for tech journalists and bloggers who participate in tech conversations within two days full of emerging content. www.rigadevdays.lv



Deep Tech Atelier

A conference and a practical workshop dedicated to deep tech startup creation and further development.



Theory and Practice of Software Testing (TAPOST)

TAPOST is an annual international conference for testing professionals, researchers and students from all over Europe. www.tapost.org



Digital Freedom Festival

www.deeptechatelier.com

An influential event with 1000+ participants discussing trends in digital technologies, startups, policymaking, and lifestyle. www.digitalfreedomfestival.com



Tech Industry

The biggest international trade fair in the Baltics for automation, electronics, engineering, industrial supplies, and innovations. www.techindustry.lv



eCOM360

A conference for eCommerce practitioners from all around the world who share case studies, experience and recent trends. www.ecom360.io



TechChill

Brings together 2000+ attendees, including startups, innovative corporations, regional investors and talented tech enthusiasts. www.techchill.co



RIGA COMM

An annual IT and business event for entrepreneurs and professionals of service and manufacturing fields, executives of state institutions and organisations.



UX Riga

User experience conference that inspires and educates digital product developers, through keynotes, workshops and case studies.

www.uxriga.com





Welcome on board

invest@liaa.gov.lv +371 6703 9473 www.investinlatvia.org www.liaa.gov.lv



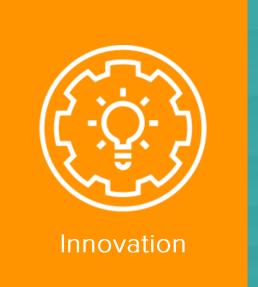
Investment and Development Agency of Latvia

Government agency with global presence

- 300 employees
- 20 representative offices around the world
- 4 departments











Investment and Development Agency of Latvia

Your personal guide for setting up business operations in Latvia



Assistance with investment location selection & implementation of investment projects.



Provision of all relevant information on business opportunities & business incentives.



Identification of the best property options for manufacturing facilities, offices, & greenfield development.



Assistance in establishing contacts with Latvian business partners, municipalities, & associations.



Successful LIAA FDI Cases















































