

Bridging Digital Gaps: Empowering FDI Stakeholders in Latvia through Digital Skills Using NACE Codes

“Bridging Digital Gaps: Empowering Learners through Green and Digital Skills”

Satellite Conference - organised by European Digital Learning Network ETS in collaboration with EKA University - Riga, 17/09/2025 - in the framework of DigitEdu 2025

- NACE (Nomenclature of Economic Activities) codes Rev. 2.1 in force in the EU since 2025

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Foreign direct investment (FDI) is a powerful vector for sustainable growth when **host economies** possess the digital skills necessary to absorb and deploy technologies. Digital readiness enables **firms with foreign capital** to leverage productivity-enhancing technologies aligning FDI with a wide spectre of industries. **Industrial structure** of balances of FDI from the countries of origin and in total is measured on the basis of NACE codes.

However, a **digital gap** prevents full realisation of the FDI potential. Within a population, it is the **disparity** between individuals **with** access to information and communication technologies (ICT) and making use of services offered on the Web, and those **without**. Examples of digital divide include the **cost of devices and services** for connecting to the Internet, **impeding access** for low-income earners; **insufficient knowledge and skills** to use the necessary devices and technologies easily; and the difficulty in implementing **infrastructures** that facilitate the adoption of ICTs in certain areas of FDI.

NACE codes for ICT activities primarily fall under **Section J** - Information and Communication, specifically divisions 61 (Telecommunications) and 62 (Computer programming, consultancy, and related activities). Within these divisions, various **subclasses** cover specific ICT activities, such as telecommunications services, computer programming, IT consultancy, and data processing. Additionally, **ICT manufacturing** is covered under **Section C**, division 26 in NACE.

Unfortunately, **FDI stakeholders** up to now **are not empowered** through digital skills to use NACE codes.

The **aim** of this research is to investigate **FDI in Latvia** in the perspective of **use of NACE codes** to empower stakeholders through digital skills.



The **object of research** is **FDI in Latvia** statistically defined by the Register of enterprises.

The **subject of research** is the use of **NACE codes** for empowering FDI stakeholders through digital skills.

FDI stakeholders are participants of the FDI deals,- direct and indirect.

The **hypothesis** states: “Skills in NACE codes **provide for** bridging digital gaps in empowering FDI stakeholders.”

Research questions include:

1. How did the FDI balances develop in Latvia?
2. What is the NACE structure of FDI in Latvia?
3. What challenges do FDI stakeholders face in digital skills for using NACE codes?
4. How can the digital divide in FDI analytics be addressed?

NACE structure of **the total FDI** in Latvia covers data of **deals** registered in 1991-August 2025.

In 2025, **516** NACE INDUSTRIES with **FDI in Latvia** made by **21 194** foreign investors from **136** countries can be analysed.

To deepen analysis, **15 009 active enterprises** can be involved in the analysis (based on data reported by each in the previous years).

The **FDI balance** as a result of **241 506 deals** in almost 35 years constitutes EUR **12 340 523 205** in August 2025 (see Fig.1).

TOP 5 NACE industries with FDI in Latvia: by volumes invested,
by number of active companies,
by number of investors.

All FDI in Latvia by years, Balance, EUR

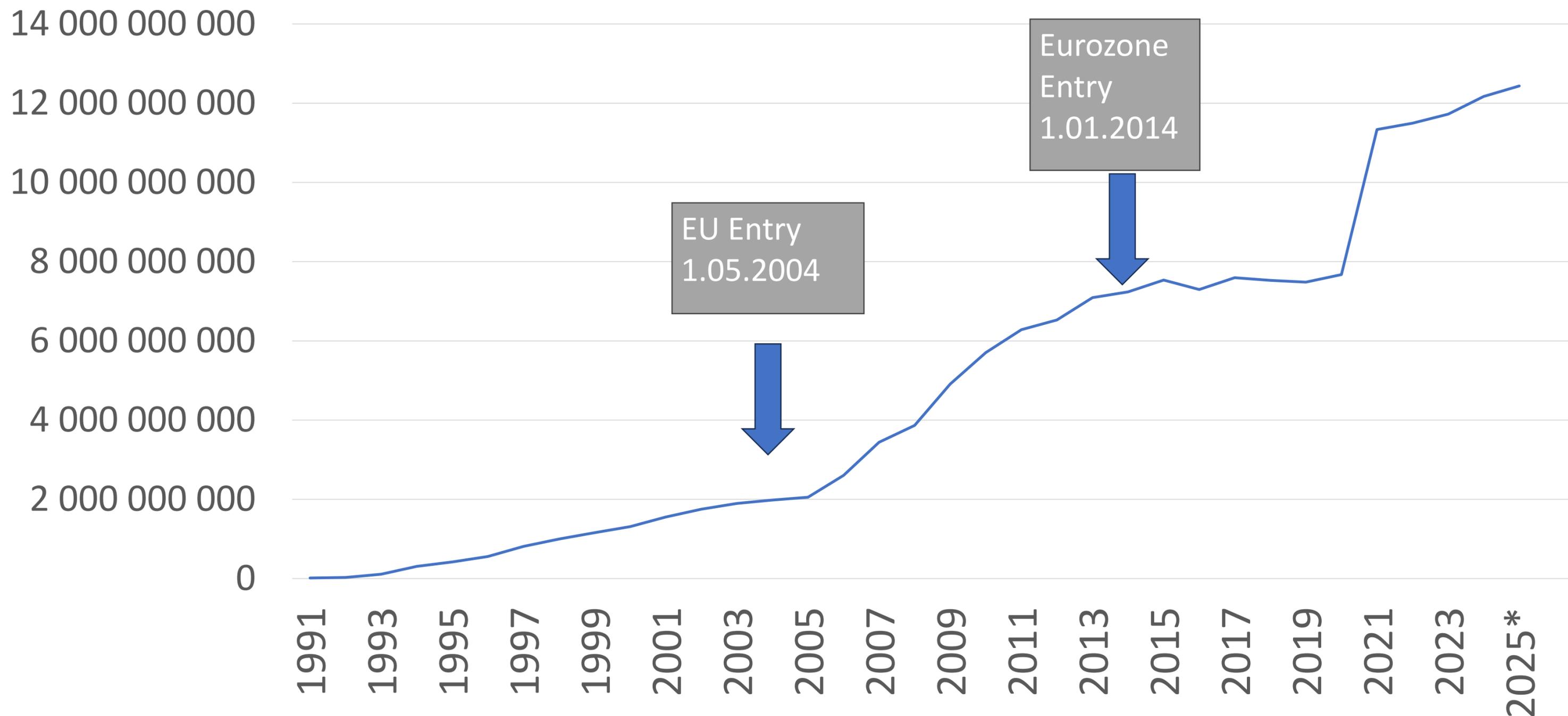


Figure 1 All FDI in Latvia by years, Balance, EUR (Author based on Lursoft statistics of registered FDI deals, 1991-2025*)

TOP 5 of 516 NACE industries of FDI in Latvia, EUR

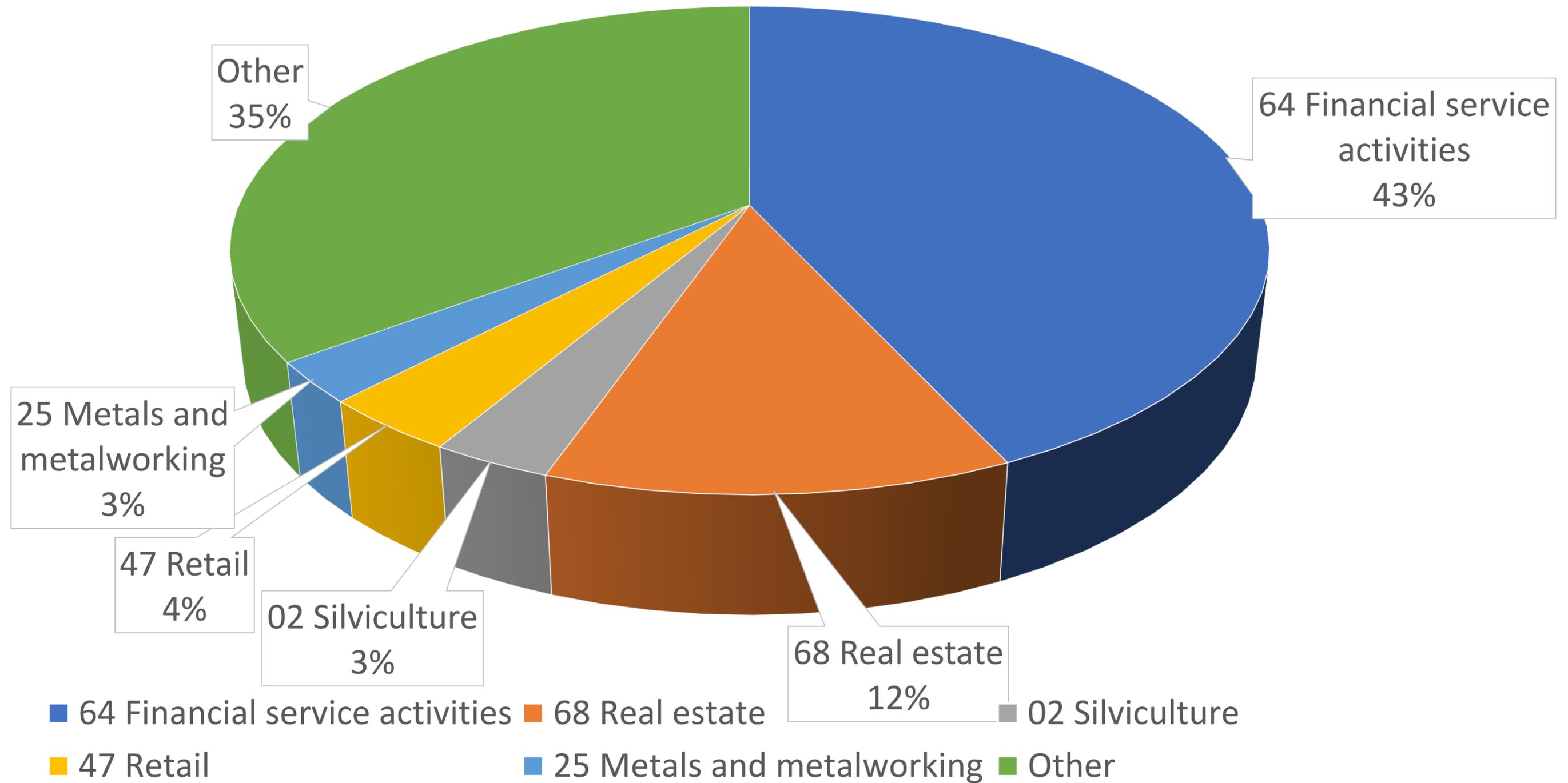


Figure 3. TOP 5 NACE Industries with FDI in Latvia by volumes invested, EUR. (Author based on Lursoft statistics, 2025)

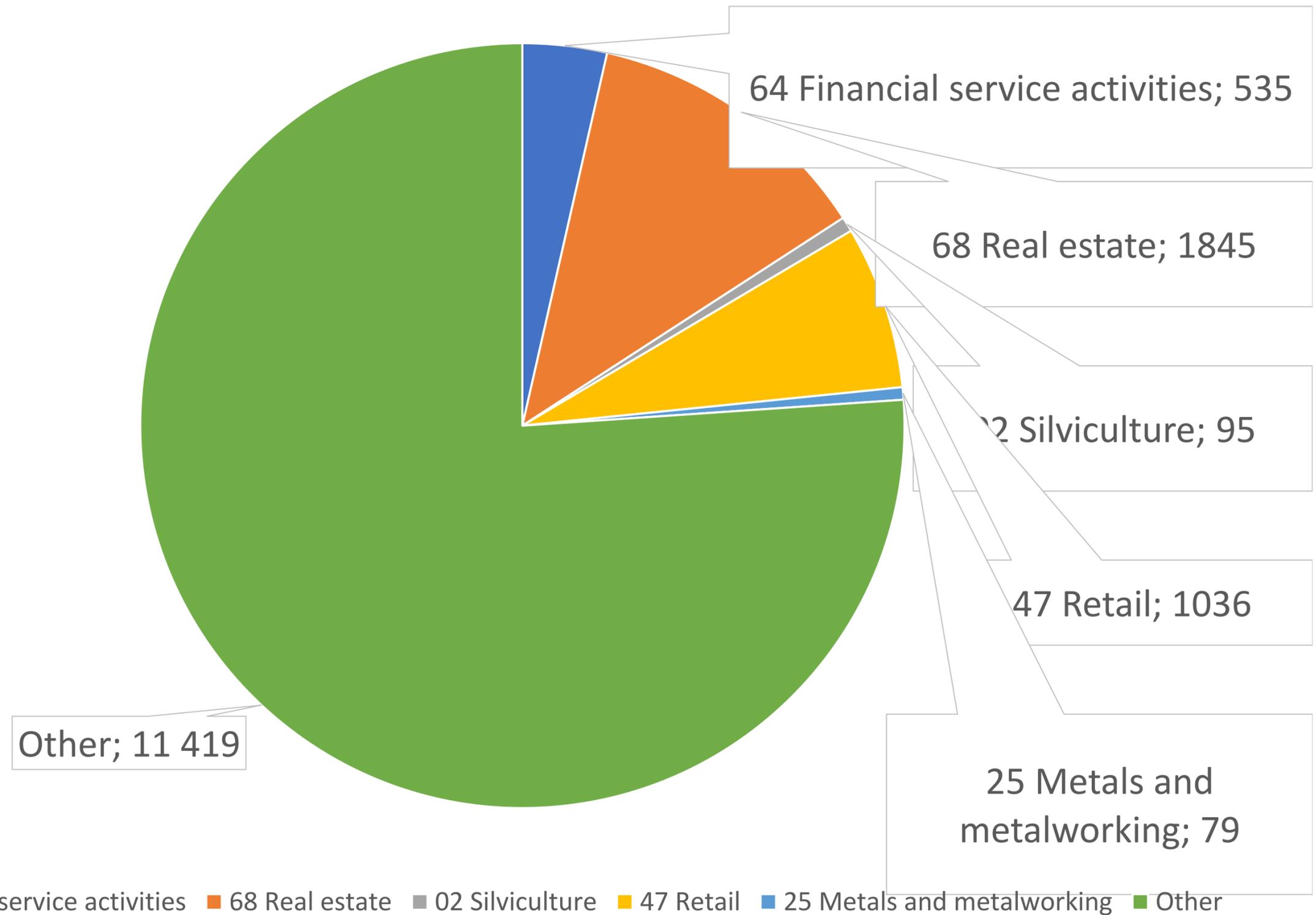
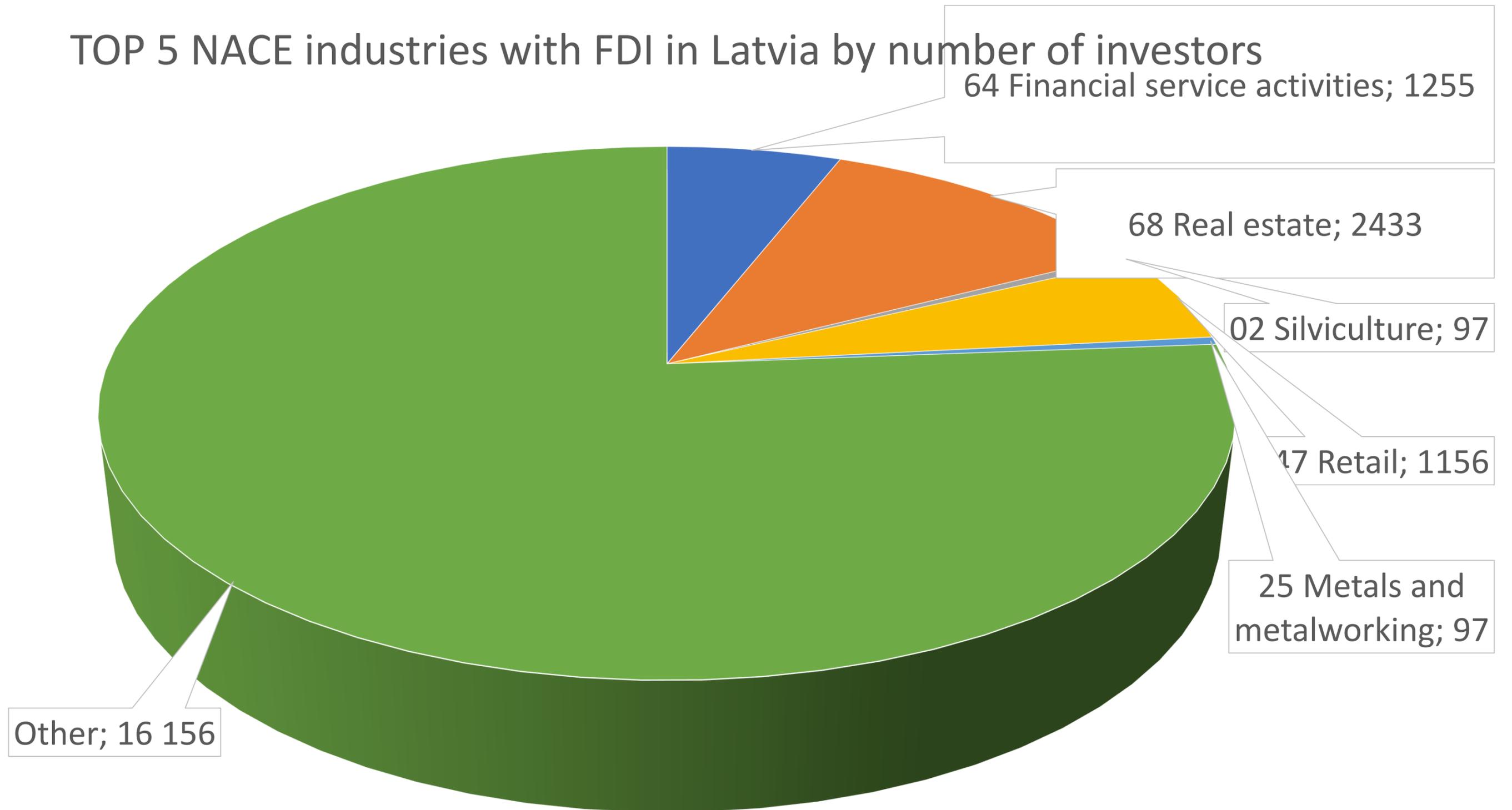


Figure 3. TOP 5 NACE Industries with FDI in Latvia by number of active companies (Author based on Lursoft statistics, 2025)

TOP 5 NACE industries with FDI in Latvia by number of investors



■ 64 Financial service activities ■ 68 Real estate ■ 02 Silviculture ■ 47 Retail ■ 25 Metals and metalworking ■ Other

Figure 4. TOP 5 NACE Industries with FDI in Latvia by number of investors (Author based on Lursoft statistics, 2025)

3. What Challenges Do FDI Stakeholders Face in Digital Skills for Using NACE Codes?

The next step is **plotting a table** with a set of indicators for each company with foreign capital in Latvia by NACE codes, by the country of origin, and by problem to be analysed. Review of literature disclosed the most discussed of them. The major challenge for FDI stakeholders who managed to plot the table is **updating** of the analytical table. The companies report every year, however many fail to report on time. Hanging court cases prevent continued reporting as well.

Many company reports do not include turnover, employees number, profit figures.

Some companies are under **more than one NACE** code. *LIDL Latvija* is active in both NACE 47.11 Retail and 68.31 Real estate. Some companies change the industry they registered by grounding - for another industry.

A special problem is **generalising NACE codes** when investigating all FDI, e.g. Financial service activities NACE 64 division covers Other monetary intermediation (64.19), Activities of holding companies (64.20) and more. Summing up some of them in research analytical table demands detailed skills.

A crucial challenge, a **longitudinal** study of NACE structure of FDI presupposes **repeatedly** collected data from the same sample over an extended period of time. In this research, we have only a **cross-sectional FDI study** that collects and interprets NACE data at a specific point in time, in August 2025. However, the need for longitudinal study is crying.

Updating analytical tables *by hand* is out of technological advance. The AI might do it. However, the access for AI platforms **to the big FDI databases** like Lursoft.lv, Firmas.lv, etc is not secured. Big databases tend to limit free access to more and more data by **authorisation** procedure and by **payment** procedure. Some **progressive solutions** like *Relationship graph* (in Latvian *Dzimtas koks*) and *Graph on the map* belong to paid services from the very beginning. Due to decision by the European Commission, **real beneficiaries** became secret since 2024. A **special permission** is needed to get access. **As a result**, AI platforms **cannot update** NACE tables for FDI stakeholders. To take the issue broader in discussion, Gartner report (2025) shows why AI tools **can't succeed** without access to high-quality, well-governed information. AI assistants are only as useful as the information they can reach.

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- Piekļuve informācijai par visiem Baltijas uzņēmumiem tikai par 9,90 EUR
- Bez ilgtermiņa līgumsaistībām

PIESLĒGTIES

Access without
a human is
denied for the
AI platforms

-
- Automatic updating NACE tables in FDI statistics can be a criteria of **new quality of AI** in the near future.



4. Practical implications: How can the digital divide in FDI analytics be addressed?



Israeli DI in Latvia (rank 21 by volume) in 350 active firms in 140 NACE industries in August 2025 *have fallen out* of the FORUM...

Policymakers should provide business environment for FDI in digital/green skills via training and partnerships.

Firms need upskilling strategies; **educational institutions** should integrate AI/sustainability curricula.

Investors must contribute to host skills.

Step by step reducing the Digital Divide is advised:

increased Connectivity; better Digital Literacy;

affordable, equitable Access; investing in Digital Education;

devising locally appropriate, public-private Solutions;

developing stronger Broadband Infrastructure.

Promotion agencies should **constantly monitor the NACE structure of FDI** by countries of origin. Lack of such skills became evident in the recent event **the Latvian-Israeli Business Forum held in Riga on August 5, 2025**. Host-country's lack of digital skills prevented plotting a report on time on *Israeli DI in Latvia* despite their high ranking as 21st among 136 countries.

LIIA/LIDA needs targeted NACE training programs in digital literacy.

There should be a **draft text** on FDI from each country in Latvia (supported by **EXCEL table**) updatable by one employee within one working day.

Firms attracting FDI should embed comprehensive upskilling strategies (e.g. vocational training, micro-credentials in digital innovation) to ensure workforce readiness.

Educational institutions should offer interdisciplinary curricula combining digital technology (e.g. AI, data analytics) with sustainability modules, as recommended by OECD frameworks.

- Bridging digital gaps via digital skills in NACE codes is crucial for maximizing FDI's economic impact in Latvia.
- NACE codes offer a framework for structural analysis and empowerment of the FDI stakeholders.
- Coordinated efforts among policymakers, educators, firms, and investors—through upskilling and ecosystem investments—will enhance absorptive capacities and sustainable outcomes of FDI in Latvia.

● THANK YOU FOR YOUR ATTENTION!

Questions are welcome



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References

1. Bank of Latvia. Direct Investments (2025) <https://www.bank.lv/statistika/skaitlis/tiesas-investicijas-latvija> accessed 21.08.2025
2. Chowdhury, A. A., et al. (2024). Enhancing Green Economy with Artificial Intelligence: Role of Energy Use and FDI in the United States. arXiv preprint.
3. Darmo, L., et al. (2025). Does Foreign Direct Investment Enhance Digital Readiness? South East European Journal of Economics and Business.1/19. DOI: 10.2478/jeb20250008.
4. Demper., J. Et al (2023). The Impact of Innovation on Economic Growth, Foreign Direct Investment, and Self-Employment: A Global Perspective. *Economies* 2023, 11(7), 182; <https://doi.org/10.3390/economies11070182>
5. Eurostat (2025) <https://ec.europa.eu/eurostat/web/nace> accessed 19.08.2025
6. Gartner. (2025). Rethink Enterprise Search to Power AI Assistants and Agents. <https://www.gartner.com/en/documents/6341979> accessed 20.08.2025
1. Ha L.T and Huyen N.T.T. (2022). Impacts of digitalization on foreign investments in the European region during the COVID-19 pandemic. *Development Studies Research*, Vol. 9, No. 1, pp. 177-191, DOI: 10.1080/21665095.2022.2074863 Routledge – Taylor and Francis Group
2. Hazans, M., Rasmus, B. H., Upenieks, J., Žabko, O. STEM-oriented secondary education in Latvia: spatial inequalities in access and achievements. 2025. *Regional Studies, Regional Science* 12(1):682-702. DOI:10.1080/21681376.2025.2525432. License CC BY 4.0
3. Hristova Zaevska, O., Pegoraro, D., & Piscitello, L. (2024). Digitalization, Industry 4.0 Policies and Inward FDI. In *Handbook of International Business Policy*. DOI: 10.4337/9781035308682.00029.
4. Lursoft.lv Breakdown of foreign investments by industry <https://statistika.lursoft.lv/en/statistics/foreign-investments/by-nace/> accessed 14.09.2025.
5. Ministry of Economics (2024) <https://www.em.gov.lv/en/article/expanded-support-digital-skills-development-companies> accessed 17.08.2025
6. Ministry of Environmental Protection and Regional Development (VARAM). Latvian Digital Transformation Guidelines for 2021-2027 – Accellation of Digital Capacities for Future Society and Economy. VARAM <https://www.varam.gov.lv/en/article/latvian-digital-transformation-guidelines-2021-2027-accellation-digital-capacities-future-society-and-economy> accessed 12.08.2025
1. Nguyen, V.B. (2023). The role of digitalization in the FDI – income inequality relationship in developed and developing countries. *Journal of Economics, Finance and Administrative Science*, Emerald Publishing Limited, DOI 10.1108/JEFAS-09-2021-0189
2. OECD. (2024). Building Competencies for Digital and Green Innovation in Higher Education. https://www.oecd.org/en/publications/building-competencies-for-digital-and-green-innovation-in-higher-education_d3869c1f-en.html accessed 15.08.2025
3. Saksonova, S., Konovalova, N., Savchina, O. Effect of foreign direct investment on the economy of developing countries: Case of Latvia. *International Journal of Advanced and Applied Sciences*, 10(3), pp. 26–36. 2023. DOI: 10.21833/ijaas.2023.03.004
4. UNCTAD. (2025). *World Investment Report 2025: International investment in the digital economy*. United Nations. <https://unctad.org/publication/world-investment-report-2025> accessed 28.07.2025
5. Yu, H., & Md. Qamruzzaman M.(2022). Innovation-Led FDI Sustainability: Clarifying the Nexus between Financial Innovation, Technological Innovation, Environmental Innovation, and FDI in the BRIC Nations. *Sustainability* 2022, 14(23), 15732; <https://doi.org/10.3390/su142315732>