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## Economic potential of Ukraine's AI ecosystem: structure, human capital, investment and export

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**Purpose.** The purpose of the article is to assess the economic potential of Ukraine's AI ecosystem through the analysis of its market structure, human capital, investment dynamics, and export capacity of the IT sector. Particular attention is paid to determining the role of the AI segment in increasing high-tech value added, labour productivity, export competitiveness, and the macroeconomic resilience of Ukraine.

**Methodology.** The methodological basis of the study is a structural-dynamic and comparative analysis of statistical and analytical data characterizing the development of Ukraine's IT sector and AI ecosystem. The empirical basis includes indicators of IT exports for 2019–2024, the number of IT and AI specialists, the share of AI specialists in IT employment, the structure of AI employment by type of employer, the dynamics of AI companies for 2013–2023, the geographical concentration of AI talent and business, and venture financing indicators. The study employs descriptive statistical analysis, growth rate comparisons, structural analysis, and the generalization of industry reports and international analytical sources.

**Findings.** The study shows that Ukraine's IT exports increased from USD 4.2 billion in 2019 to USD 6.4 billion in 2024, confirming the role of the IT sector as one of the key sources of foreign currency earnings and a stabilizer of the balance of payments. It is established that the AI segment remains relatively small in terms of employment, but demonstrates faster growth compared to the IT sector as a whole. The share of AI specialists in IT employment nearly doubled between 2019 and 2024, while the number of AI specialists increased from 0.97 thousand in 2013 to 6.1 thousand in 2025. The article identifies a structural shift from the outsourcing model toward product companies, indicating the strengthening of business models with higher value added. The analysis also reveals a high geographical concentration of AI business and talents in several regional centers, primarily Kyiv and Lviv. Regarding investment, a significant jurisdictional gap is identified: AI companies of Ukrainian origin incorporated abroad attract considerably more capital than those registered in Ukraine, which weakens the domestic economic multiplier.

**Originality.** The scientific novelty of the article lies in the integrated consideration of Ukraine's AI ecosystem through the combination of ecosystem indicators – human capital, company structure, employment models, geographical concentration, and investment flows – with macroeconomic indicators of IT exports and the role of the sector in maintaining the balance of payments. This approach makes it possible to assess the AI segment not only as a technological field, but also as a factor of structural transformation and long-term economic development.

**Practical value.** The practical significance of the results lies in substantiating the need for state and business policies aimed at strengthening the economic effects of AI development in Ukraine. The findings may be used to support the development of Ukrainian jurisdiction for AI companies, stimulate regional innovation centers, attract investment, retain and develop human capital, and expand the use of AI beyond the IT sector in order to increase cross-sectoral productivity.

**Keywords:** economic potential, artificial intelligence, AI ecosystem, IT export, human capital, AI investments, productivity, Ukraine.

### Introduction

Artificial intelligence is evolving from a technological trend into a systemic driver of national economic competitiveness, reshaping labour productivity, employment structures, and investment flows. McKinsey (2025) reports that while 62% of organizations are experimenting with AI agents, only 39% observe a tangible impact on EBIT, indicating that commercialization lags behind technological experimentation. This is particularly critical for Ukraine, where the IT sector serves as a primary source of foreign currency earnings. Even a modest share of AI

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specialists can provide a disproportionately high contribution to export revenue and the tax base, if products are effectively scaled.

The study synthesizes available statistical data on Ukraine's AI segment – specialists, company structure, geography, and investment – and correlates them with macroeconomic performance indicators. The empirical analysis covers the period 2013–2025 for human capital and 2019–2024 for IT exports. We utilize global benchmarks, such as the Stanford University AI Index (Maslej et al., 2025), alongside domestic industry reports. However, as existing literature often lacks an integrated assessment of ecosystem metrics with macroeconomic outcomes, this article aims to bridge this analytical gap by examining the nexus between AI development, export dynamics, and jurisdictional impacts.

### **Literature review**

The discourse on the economic consequences of AI implementation focuses on three interconnected vectors: productivity dynamics, labour market transformation, and institutional conditions for technology diffusion. OECD (2024) classifies AI as a general-purpose technology capable of boosting aggregate productivity while highlighting risks related to the uneven distribution of these effects. The World Economic Forum (2023) emphasizes the necessity of large-scale workforce reskilling amidst changing competency requirements. At the micro level, Babina et al. (2024) demonstrate that technological modernization stimulates sales growth and firm market value primarily through product innovation, albeit noting that these benefits often accrue to large incumbents, thereby increasing market concentration.

Despite significant international research, the literature lacks a comprehensive analysis integrating AI ecosystem indicators – human capital, firm structure, and geographical distribution – with national macroeconomic outcomes, such as IT export dynamics, the jurisdiction multiplier, and balance-of-payments contributions. In Ukraine, where the IT sector is pivotal to foreign currency inflows, such integrated assessments are largely absent. Existing national reports typically document isolated elements of the ecosystem without linking them to long-term export dynamics or investment jurisdiction effects.

### **Purpose of the Study**

The purpose of the article is to assess the strategic economic potential of the Ukrainian AI segment based on a retrospective analysis of IT export indicators, investment, and human capital development (2013–2025), and to identify the key determinants of its scaling.

### **Methodology**

To achieve the stated purpose, the study applies structural-dynamic and comparative analysis. The empirical basis consists of statistical and analytical data on the development of Ukraine's IT sector and AI ecosystem. The study utilizes indicators of IT service exports, the number of IT and AI specialists, the share of AI specialists in IT employment, employment structure by type of employer, the number of AI companies, the geographical distribution of AI offices and talent, and venture financing volumes. The observation period spans 2013–2025 for AI talent and 2013–2023 for business dynamics, complemented by 2019–2024 IT sector performance data. This approach facilitates the synthesis of long-term ecosystem trends with current macroeconomic and investment dynamics.

### **Results and Discussion**

To evaluate the macroeconomic significance of the technology sector, we first examine the dynamics of IT services exports, as this metric most accurately

captures the industry’s contribution to foreign currency earnings and the stability of Ukraine’s balance of payments (Table 1).

Table 1  
Dynamics of IT services exports and their share in the overall structure of Ukraine’s exports

Indicators	2019	2020	2021	2022	2023	2024	Coefficient of change over the last year	Coefficient of change for the period
Export of IT services, USD billion	4,2	5	6,9	7,3	6,7	6,4	0,96	1,52
Share of IT services exports in exports of all services, %	23,9%	32,3%	37,8%	44,2%	40,5%	37,4%	-3,1 p.p.	13,5 p.p.
Share of IT services exports in exports of goods and services, %	6,6%	8,3%	8,5%	12,8%	13,1%	11,5%	-1,6 p.p.	4,9 p.p.

Source: compiled by the authors based on Top Lead (2025) and National Bank of Ukraine (n.d.).

The data presented in Table 1 confirm that IT exports serve as a vital stabilizer of Ukraine’s external revenues. Despite a post-2022 contraction, IT exports grew by 52% between 2019 and 2024. The sector’s resilience is further demonstrated by its share in total service exports, which reached 37.4% in 2024 – an increase of 13.5 percentage points from 2019. Similarly, the IT sector’s contribution to total exports of goods and services rose from 6.6% to 11.5% over the same period. These results indicate that the IT industry maintains a robust capacity to generate foreign currency earnings, providing the financial prerequisites for domestic investment in complex technological products, particularly in artificial intelligence.

While macroeconomic indicators highlight the IT sector’s fiscal importance, they do not fully explain potential growth in value added or export pricing. To address this, we analyze the AI segment’s role as a driver of productivity (Table 2).

Table 2  
Comparative characteristics of Ukraine’s IT sector and AI segment by main indicators, as of 2023

Indicators	Value
Number of IT specialists, thousand persons	307,6
Number of AI specialists, thousand persons	5,2
Potential talent pool	22,5
Forecast of personnel growth	+330% (by 2030)
Number of Ukrainian IT specialists abroad, thousand persons	65
of whom have 5 or more years of experience, thousand persons	29
Number of AI companies	243

Source: compiled by the authors based on AI HOUSE and Roosh (2024), Lviv IT Cluster (2023), and AI HOUSE (2025).

As of 2023, the Ukrainian IT workforce is estimated at 307.6 thousand professionals, with approximately 65 thousand working abroad, primarily in Poland, the USA, the UK, Germany, and other European nations (AI HOUSE & Roosh, 2024). Although the AI segment currently employs a relatively small number of specialists – 5,200 in 2024 and 6,100 in 2025 – it possesses significant scaling potential. AI HOUSE (2025) estimates a «potential talent pool» of 22.5 thousand individuals who have the requisite skill sets to transition into AI and machine learning roles.

Although AI personnel currently represent a minor share of total IT employment, this segment offers the highest potential for productivity gains and increased export

hourly rates. This is supported by PwC (2025), which notes that AI-skilled workers commanded a 56% wage premium in 2024, while industries with high AI exposure experienced revenue growth per employee three times higher (27%) than those with lower exposure (9%). Consequently, investment in AI capabilities offers a pathway to increased profitability and productivity without requiring proportional expansion of the workforce.

A significant economic signal is the high number of Ukrainian IT specialists working abroad. This phenomenon represents both a risk of losing human capital and a tax base, and an opportunity to develop international networks and contracts (Yaskal, 2026). To understand the stability of the IT market, it is essential to analyze the institutional forms of employment, specifically independent contracting (sole proprietorship), traditional employment, and gig contracts (Table 3).

Table 3

**Dynamics of the number of IT specialists by form of employment  
and the share of AI in IT, 2019–2024**

(thousand persons)

Indicators	2019	2020	2021	2022	2023	2024	Growth coefficient 2024/2023	Growth coefficient for the entire period
Individual entrepreneurs	168,6	195,1	243,9	272,8	265	258,2	0,97	1,53
Employees	61,3	61,2	67	58,1	51	- <sup>1</sup>	- <sup>1</sup>	-
Gig specialists	-	-	-	5,9	23,2	35	1,51	-
Total	229,9	256,3	310,9	336,8	339,2 <sup>2</sup>	293,2	0,86	1,28
Share of AI in IT	1,00%	1,13%	1,29%	1,37%	1,53%	1,98%	-	-

Note:

<sup>1</sup> data are missing.

<sup>2</sup> the discrepancy with the estimate of 307.6 thousand is explained by differences in accounting methodology, namely the coverage of employment categories and the data source. Therefore, within the article, the indicator of 307.6 thousand persons is used to coordinate further calculations.

Source: compiled by the authors based on Top Lead (2025).

The data in Table 3 illustrate the evolution of the IT employment structure. The largest cohort consists of individual entrepreneurs (sole proprietors), whose numbers grew from 168.6 thousand in 2019 to 258.2 thousand in 2024. Despite this long-term growth, a slight contraction was observed in 2024, with a growth coefficient of 0.97 compared to 2023. Since 2022, the segment of «gig specialists» has emerged and expanded rapidly, nearly doubling within two years. This reflects the institutional legalization of flexible contracts and the industry's adaptation to new regulatory frameworks. Overall, the total number of IT specialists increased by 28% over the analyzed period, although growth has decelerated since 2022, with an absolute decline observed in 2024.

Concurrently, the number of AI specialists increased by 52% during the same period, underscoring the segment's significant potential. Consequently, the share of AI specialists in the total IT workforce rose from approximately 1.00% in 2019 to 1.98% in 2024, nearly doubling. This indicates that AI competencies are penetrating the IT sector faster than the overall market is expanding (Fig. 1).

The growth dynamics of AI specialists indicate a steady upward trend (Fig. 1). Between 2013 and 2025, human capital in this segment increased 6.3-fold, from 0.97 thousand to 6.1 thousand individuals. An average annual growth rate of 16–17% confirms that this industry is developing more rapidly than traditional economic sectors. While the growth coefficient in 2024 was approximately +12%, a projected slowdown in 2025 to +5% should be viewed as a temporary deviation rather than a structural decline. It is critical to emphasize that even with a more

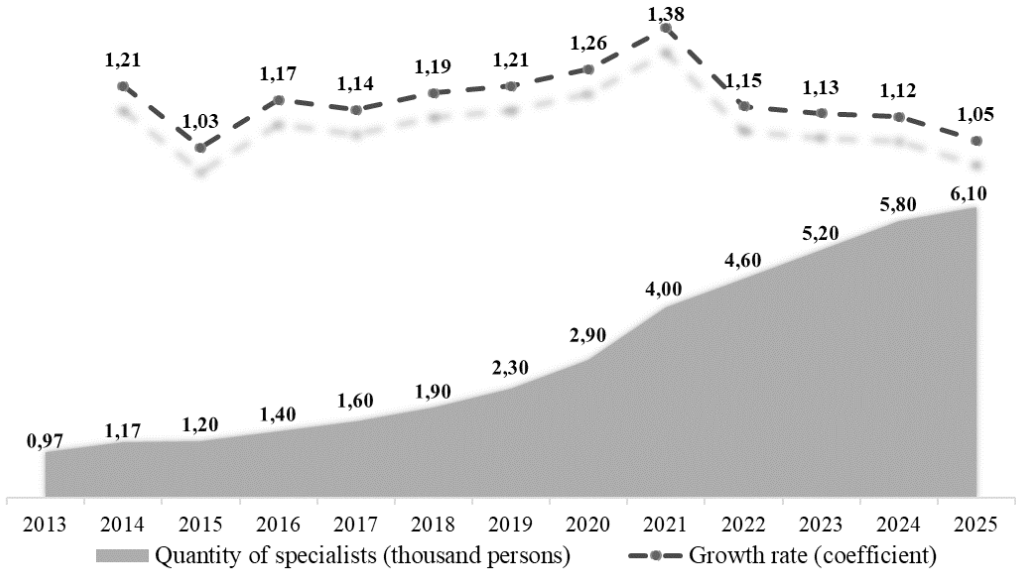


Fig. 1. Dynamics of the number of AI specialists in Ukraine and the rate of segment expansion, 2013–2025

Source: constructed by the authors based on AI HOUSE and Roosh (2024).

moderate increase in headcount, the economic contribution of AI to Ukraine’s GDP and balance of payments will remain substantial due to the intensification of productivity and the higher export value of specialized AI services.

To move beyond aggregated quantitative indicators, we must examine the employment structure within the AI ecosystem. The nature of contractual interaction with talent determines the sector’s adaptability to external shocks and its capacity to accelerate the diffusion and scaling of AI competencies (Table 4).

Table 4

**Employment structure of AI specialists by type of employer**

Type of organization	Previous workplace, % of respondents	Current workplace, % of respondents	Change, p.p.
IT product	36%	41%	5%
IT outsourcing	21%	16%	-5%
IT outstaffing and mixed	14%	16%	2%
Business outside the IT industry	10%	13%	3%
University or research institute	9%	6%	-3%
Freelance	5%	2%	-3%
Non-profit or public organization	2%	1%	-1%
Military structure, military service	2%	3%	1%
Government structure	1%	2%	1%

Source: compiled by the authors based on AI HOUSE and Roosh (2024).

The data in Table 4 indicate a structural paradigm shift in the AI segment, characterized by a transition from service-oriented (outsourcing) models toward product-based models. The share of talent employed in product companies increased by 5 percentage points, while the outsourcing share contracted by the same margin, signaling a strategic pivot toward higher value-added activities. Concurrently, the application of AI beyond the IT sector has expanded to 13%, with increasing penetration into finance, agribusiness, and telecommunications. While the decline

in researchers and freelancers (by 3 p.p. each) may suggest a migration toward more commercially stable roles, it also highlights a potential risk of a growing gap between fundamental research training and immediate market requirements.

A notable economic development is the rising presence of AI expertise in government and defense, where shares have reached 2–3%, reflecting an emergent domestic public sector demand. According to AI HOUSE & Roosh (2024), while AI specialists in the business segment primarily drive innovations in marketing, media, e-commerce, and fintech, the non-IT economy is increasingly utilizing AI for industrial manufacturing, military technologies, and telecommunications. This transition from a service-centric model to a product-industry model is economically advantageous, as it enables revenue scaling without a proportional increase in headcount.

This shift is increasingly driven by the emergence of «Frontier Firms» – organizations that move beyond mere automation to redefine workflows around «intelligence on tap» (Microsoft, 2025 Work Trend Index Annual Report). In the Ukrainian context, where firms face resource constraints and market volatility, adopting a «work chart» – a dynamic structure organized around tasks rather than rigid functions – is becoming a competitive imperative. However, this shift is currently moderated by a significant «capacity gap»: while 82% of global leaders plan to expand their workforce with digital labor, Ukrainian IT companies must overcome infrastructure and energy limitations to integrate AI agents as a form of «managed talent».

This qualitative transformation is further evidenced by the evolution of company structures (Table 5).

Table 5  
**Dynamics of AI companies in Ukraine by type, 2013–2023**

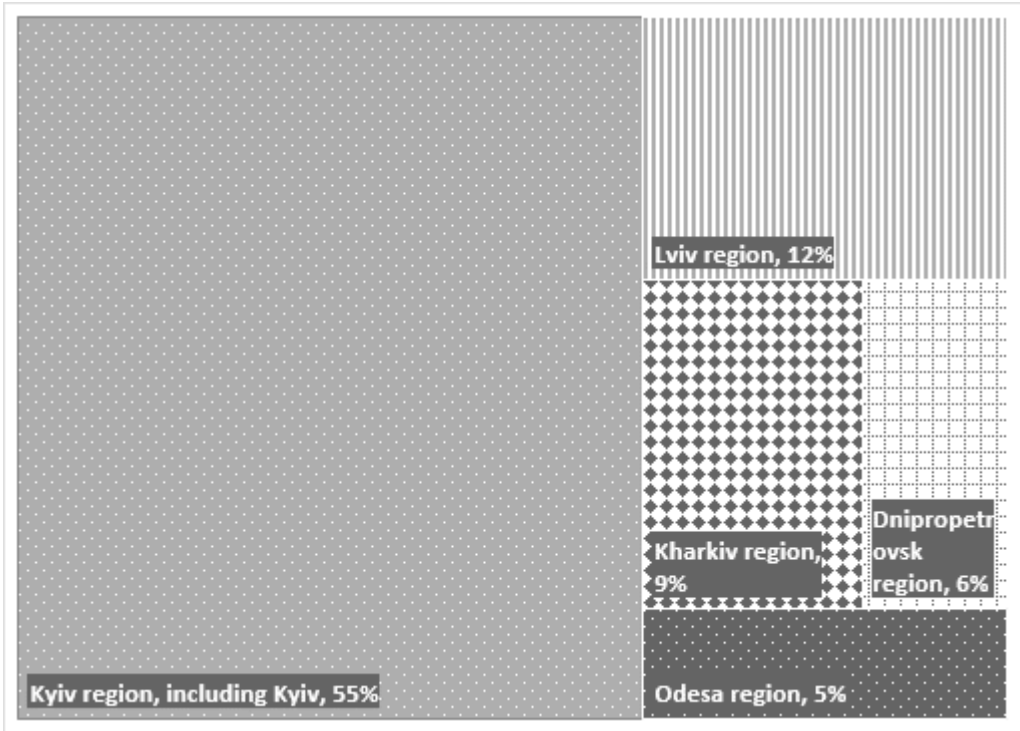
Indicator												units	
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Growth coefficient 2023/2022	Growth coefficient for the entire period
Product companies	49	60	68	84	108	123	134	150	171	180	183	1,02	3,7
Service companies	41	47	50	52	56	56	58	59	59	60	60	1	1,5
Total AI companies	90	107	118	136	164	179	192	209	230	240	243	1,01	2,7

*Source: compiled by the authors based on AI HOUSE (2025).*

From 2013 to 2023, the number of AI-focused firms increased 2.7-fold, with product companies driving this growth – their share within the AI segment rose from approximately 54% to 75% (Table 5). This shift is critical, as the product model offers superior opportunities for revenue scaling and the accumulation of intellectual capital within the domestic economy. Ultimately, the synchronization between labor market trends and company-level business models confirms a robust structural evolution toward a more mature, product-oriented AI ecosystem.

The structural growth of the AI market remains uneven, with companies and specialists concentrated in several key regional hubs. This concentration is a critical consideration for economic policy, as it significantly impacts infrastructure accessibility, capital flow, and the development of innovation clusters. We therefore analyze the geographical distribution of company offices (Fig. 2) and AI talent (Fig. 3).

The capital region serves as the primary hub, accumulating 55% of AI offices and 43% of AI talent, indicating a higher density of legal and organizational headquarters compared to human capital distribution. Conversely, the Lviv region



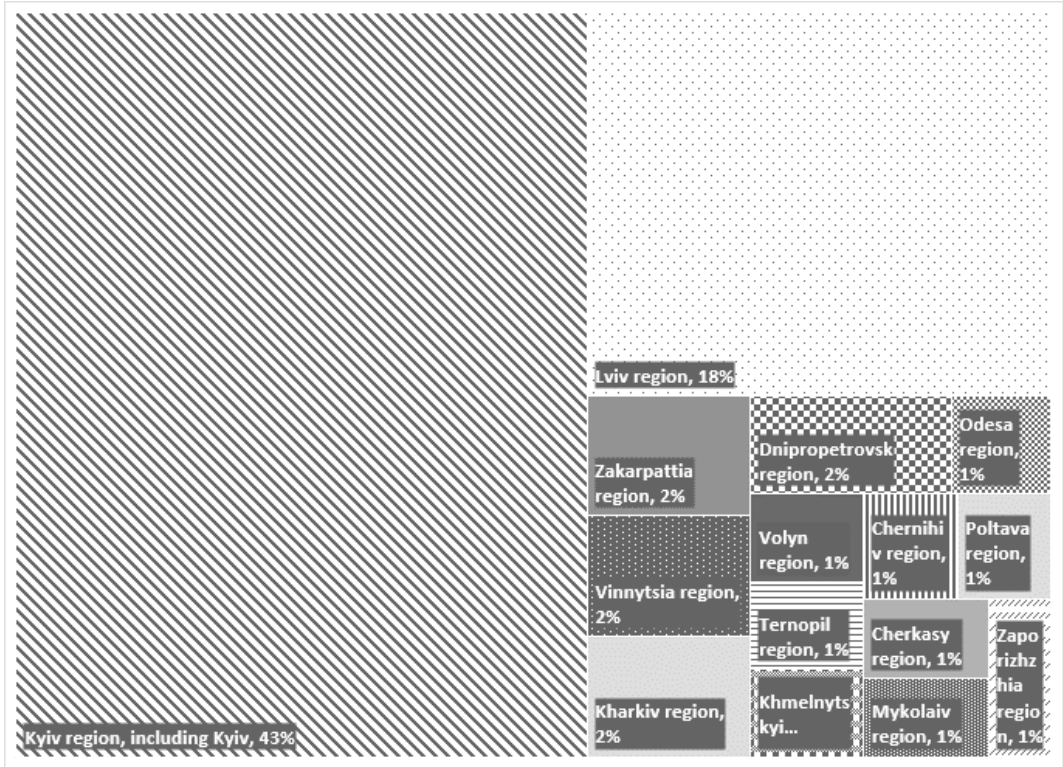
**Fig. 2.** Geography of Ukraine’s AI segment: share of company offices by region, 2024  
 Source: compiled by the authors based on AI HOUSE and Roosh (2024) and AI HOUSE (2025).

exhibits a divergent ratio, accounting for 12% of offices and 18% of talent, which underscores its substantial personnel and educational potential as a foundation for expanded corporate presence. The disparity observed in the Kharkiv region – 9% of offices against 2% of talent – is likely attributable to relocation and security risks, where firms maintain formal registration due to existing R&D infrastructure despite the territorial redistribution of specialists (Fig. 2; Fig. 3).

The emergence of regions hosting 1–2% of the talent pool underscores the significance of remote work in fostering a more distributed growth model, provided adequate infrastructure support is implemented. To enhance aggregate value added, policy should focus not only on sustaining Kyiv as a central hub but also on strengthening established regional centers – Lviv, Dnipro, and Odesa – as engineering and product development nodes. Furthermore, there is significant potential to stimulate the formation of emerging AI centers in Uzhhorod, Vinnytsia, Lutsk, Ternopil, and Khmelnytskyi through targeted R&D instruments and human capital investment.

To evaluate the financial foundation of the AI ecosystem, we must examine the volume of venture capital inflows and the distribution of investment deals (Table 6).

The data in Table 6 illustrate a marked disparity between general investment activity in the technology sector and the financing specifically allocated to AI firms under Ukrainian jurisdiction. In 2023, total venture funding for technology companies with Ukrainian jurisdiction reached approximately USD 209 million, which represents the effective upper bound for domestic capital allocation during wartime. Within this framework, direct investment in AI companies registered domestically remains limited to USD 10.8 million across 22 deals, suggesting a prevalence of small-scale, early-stage financing.



**Fig. 3.** Geography of Ukraine's AI segment: share of talents by region, 2024

Source: compiled by the authors based on AI HOUSE and Roosh (2024) and AI HOUSE (2025).

While the AI sector demonstrates high growth and innovation, it risks decoupling from the rest of the domestic industrial base. This creates a «two-speed economy» where the rapid adoption of AI-driven productivity tools in the IT sector contrasts with the stagnation of traditional manufacturing and agriculture. Without deliberate policy intervention to bridge this gap, the domestic economic multiplier will remain limited, as the gains from AI fail to diffuse into the broader national economy (Rajan, 2026).

In contrast, AI firms of Ukrainian origin incorporated in foreign jurisdictions secured USD 102.5 million through 16 deals, highlighting a significant «jurisdictional gap». From an economic perspective, this discrepancy signifies a leakage of the legal and fiscal base – including tax revenues, operational headquarters, and intellectual property rights – beyond the domestic economy, thereby attenuating the national investment multiplier (Table 6).

Table 6

**Volumes of venture financing in IT and the AI segment, 2023**

Indicator	Value
Total volume of investment in technology companies with Ukrainian jurisdiction, USD million	209
Total volume of investment in AI companies with Ukrainian jurisdiction, USD million	10,8
Number of investment deals	22
Total volume of investment in AI companies with the jurisdiction of other countries, origin determined through the owner, USD million	102.5
Number of investment deals	16

Source: compiled by the authors based on AI HOUSE and Roosh (2024).

To bridge the jurisdictional gap, policy must move beyond traditional financial incentives. Following the logic of «heavy industry» economics, AI requires massive capital expenditure (CapEx) in data infrastructure, where marginal costs do not automatically decrease with scale (Moyo, 2026). Therefore, supporting Ukrainian AI companies requires ensuring access to stable energy and physical infrastructure, which are becoming the primary «bottlenecks» for macroeconomic growth (Estevro, 2026). Furthermore, Ukrainian businesses should shift from standard productivity KPIs to «agentic» metrics, such as learning velocity and task-completion accuracy, to effectively integrate AI agents as «managed talent» rather than mere cost-cutting tools (Kelly et al., 2025).

To determine whether the 2023 performance represents an anomaly or part of a cyclical trend, we examine the long-term investment dynamics in the AI sector of Ukraine relative to global benchmarks (Fig. 4).

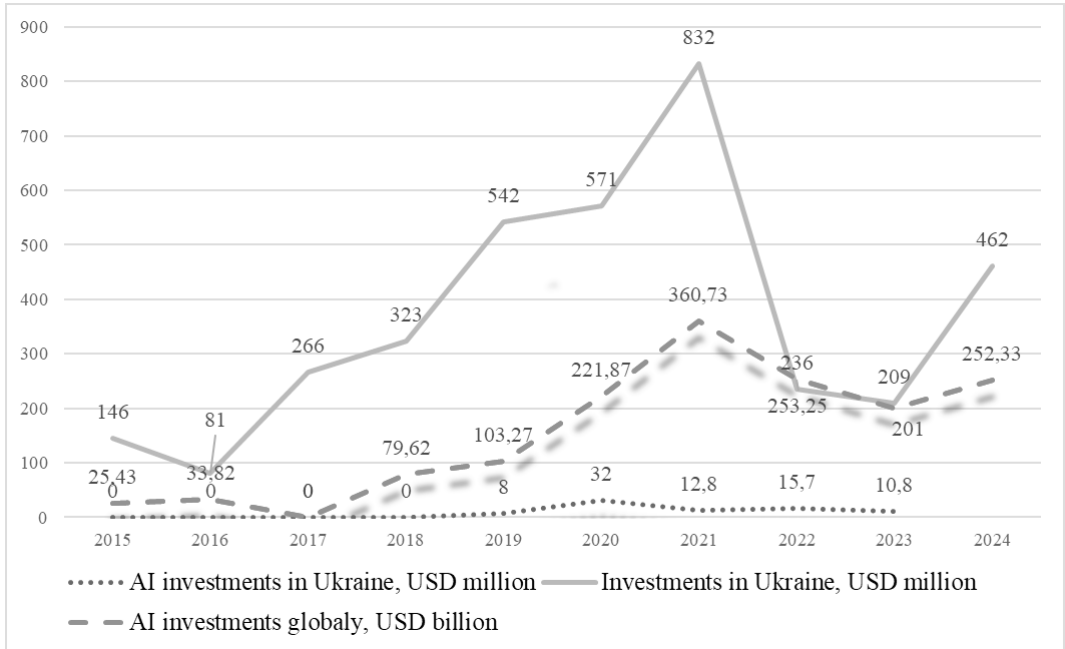


Fig. 4. Dynamics of investment in AI in Ukraine and worldwide

Source: compiled by the authors based on Top Lead (2025), AI HOUSE (2025), Maslej et al. (2025), and AVentures Capital (2024).

Investment dynamics within the Ukrainian AI segment are characterized by high volatility. Following a period of low activity between 2015 and 2019, the market experienced significant growth in 2020, subsequently stabilizing within a range of USD 10–16 million per year from 2021 to 2023 (Fig. 4). In 2023, AI investment volume in Ukraine decreased to approximately 69% of the 2022 level.

Broadly, total investment in Ukraine has followed a similar cycle: reaching a historical peak in 2021, followed by a sharp decline in 2022, stabilization in 2023, and a partial recovery in 2024. The growth rates indicate that the AI segment maintains higher dynamism for investors than the broader technology market. Globally, investment in AI also experienced a post-2021 decline followed by a recovery in 2024. Consequently, while the Ukrainian trajectory partially correlates with global trends, it remains heavily moderated by wartime security risks – a phenomenon further evidenced by comparing 2020 indicators with 2015.

### Conclusions and Directions for Further Research

Ukraine's IT sector continues to serve as a cornerstone for foreign currency earnings, with exports of IT services growing by 52% – from USD 4.2 billion to USD 6.4 billion – between 2019 and 2024, despite a 4% correction recorded in 2024. This demonstrates the systemic importance of the IT industry for the balance of payments amidst macroeconomic instability.

Within this framework, the AI segment remains a niche portion of the broader IT economy but exhibits superior growth dynamics. Key indicators of this trajectory include:

1. **Employment Growth:** The share of AI in total IT employment rose from 1.00% to 1.98% between 2019 and 2024.
2. **Talent Accumulation:** The number of AI specialists expanded from 0.97 thousand in 2013 to 6.1 thousand in 2025, positioning AI as a vital component for future high-tech value-added growth.
3. **Structural Transformation:** The sector is shifting toward higher value-added models, evidenced by a 5-percentage point increase in AI specialist employment within product companies and a corresponding 5 percentage point decrease in outsourcing. Product-based AI firms are currently outpacing service-oriented companies, confirming a strategic pivot in the business model.

However, investment data reveal a strategic «jurisdictional leakage»: in 2023, AI companies of Ukrainian origin registered abroad attracted more capital than those registered within Ukraine. This phenomenon diminishes the domestic economic multiplier and constrains the innovation and tax benefits for the national economy.

To address these challenges, targeted policy interventions are recommended in three areas:

1. **Minimizing the Jurisdictional Gap:** Implementing instruments to enhance the attractiveness of maintaining Ukrainian registration for AI companies.
2. **Supporting Regional Innovation:** Strengthening regional centers to serve as hubs for high-productivity employment.
3. **Cross-Sectoral Diffusion:** Stimulating the integration of AI technologies beyond the IT industry to bolster productivity across the broader economy.

In conclusion, the AI-driven transformation of the Ukrainian economy represents both a unique opportunity and a systemic challenge. Future research should prioritize investigating the risks of a «two-speed economy», where the rapid expansion of the AI sector contrasts with the stagnation of traditional industries. It is critical to explore mechanisms to prevent an «oligopolistic nightmare» – a scenario where AI benefits are captured solely by a few dominant platforms – thereby ensuring an inclusive domestic economic multiplier. Finally, there is an urgent need to refine national accounting methods to adequately capture «intangible capital» investments in AI, which are currently underestimated in official statistics and misread by policymakers.

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## Яскал О. О., Яскал І. В. Економічний потенціал ШІ-екосистеми України: структура, людський капітал, інвестиції та експорт

**Мета.** Метою статті є дослідження економічного потенціалу ШІ-екосистеми України крізь призму структури ринку, людського капіталу, інвестиційної динаміки та експортних можливостей ІТ-сектору. Особливу увагу зосереджено на визначенні ролі ШІ-сегмента у формуванні високотехнологічної доданої вартості, підвищенні продуктивності праці, експортної конкурентоспроможності та макроекономічної стійкості України.

**Методологія.** Методологічною основою дослідження є поєднання структурно-динамічного, порівняльного та аналітичного підходів. У роботі використано статистичний аналіз, порівняння темпів зростання, структурний аналіз і узагальнення даних галузевих і міжнародних аналітичних джерел. Інформаційною базою дослідження є показники розвитку ІТ-сектору та ШІ-екосистеми України за 2013–2025 рр., зокрема дані щодо ІТ-експорту, чисельності ІТ- та ШІ-фахівців, структури зайнятості ШІ-спеціалістів, динаміки ШІ-компаній, територіальної концентрації талантів і бізнесу, а також венчурного фінансування.

**Результати.** У результаті дослідження встановлено, що ІТ-сектор України зберігає роль одного з основних джерел валютних надходжень і стабілізатора платіжного балансу. Експорт ІТ-послуг у 2019–2024 рр. зріс із 4,2 до 6,4 млрд дол. США, хоча після пікового значення 2022 р. спостеріалося його зниження. Показано, що ШІ-сегмент поки що залишається відносно невеликим за часткою в ІТ-зайнятості, однак демонструє випереджальну динаміку розвитку. Частка ШІ-фахівців у загальній ІТ-зайнятості майже подвоїлася у 2019–2024 рр., а чисельність ШІ-спеціалістів зросла з 0,97 тис. осіб у 2013 р. до 6,1 тис. осіб у 2025 р. Виявлено структурний зсув від сервісної моделі до продуктової: зростає частка зайнятості ШІ-фахівців у продуктових компаніях, тоді як частка аутсорсингової моделі знижується. Встановлено також високу територіальну

концентрацію ШІ-бізнесу й талантів у кількох регіональних центрах, насамперед у Києві та Львові. Окремо обгрунтовано наявність юридичційного розриву у венчурному фінансуванні: значна частина інвестицій у компанії українського походження залучається поза межами української юрисдикції, що зменшує внутрішній економічний мультиплікатор.

**Оригінальність.** Наукова новизна дослідження полягає в інтегрованому аналізі економічного потенціалу ШІ-екосистеми України через поєднання екосистемних показників – людського капіталу, структури компаній, моделей зайнятості, географічної концентрації та інвестиційних потоків – з макроекономічними характеристиками ІТ-експорту та його ролі у забезпеченні платіжного балансу. Такий підхід дає змогу розглядати ШІ-сегмент не лише як технологічний напрям, а як чинник структурної трансформації та довгострокового економічного розвитку.

**Практична цінність.** Практичне значення одержаних результатів полягає в можливості використання їх для формування державної та бізнесової політики, спрямованої на розкриття економічного потенціалу ШІ в Україні. Отримані висновки можуть бути використані для підтримки української юрисдикції ШІ-компаній, розвитку регіональних інноваційних центрів, стимулювання венчурного фінансування, збереження й розвитку людського капіталу, а також ширшого впровадження ШІ за межами ІТ-сектору для підвищення міжгалузевої продуктивності.

**Ключові слова:** економічний потенціал, штучний інтелект, ШІ-екосистема, ІТ-експорт, людський капітал, інвестиції в ШІ, продуктивність, Україна.

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