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ANALYSIS OF UKRAINE'S POSITION IN THE SYSTEM OF INTERNATIONAL ECONOMIC RELATIONS FROM THE POINT OF VIEW OF INNOVATIVE DEVELOPMENT

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АНАЛІЗ ПОЗИЦІЇ УКРАЇНИ В СИСТЕМІ МІЖНАРОДНИХ ЕКОНОМІЧНИХ ВІДНОСИН З ТОЧКИ ЗОРУ ІННОВАЦІЙНОГО РОЗВИТКУ

The paper provides a comprehensive analysis of Ukraine's position in the system of international economic relations from the point of view of innovative development based on the statistical data of the Global Innovation Index for 2019–2025. The study is aimed at identifying key trends and structural features of Ukraine's innovation system. The analysis considers the dynamics of Ukraine's overall rating in the global innovation environment, and also analyzes in detail the main components of the innovation index, in particular the institutional environment, human capital and research, innovation infrastructure, market complexity, business complexity, knowledge and technological results.

Based on the analysis, it was found that Ukraine's innovative development is characterized by contradictory trends. The country demonstrates significant scientific and educational potential, which is manifested in relatively stable positions in components related to knowledge generation, scientific research and training of highly qualified specialists. At the same time, there is a low efficiency of the institutional environment, insufficient development of innovation infrastructure, limited access to financial resources for innovation activities, as well as an insufficient level of interaction between science, business and the state, which significantly hinders the process of commercialization of scientific results and the introduction of technological developments into the real sector of the economy.

The paper substantiates that the modern model of innovative development of Ukraine has signs of a structural disproportion between the potential for creating new knowledge and the possibilities of its economic use. In the system of international economic relations, this determines the specific role of Ukraine as a country that mainly exports intellectual potential, scientific developments and highly qualified personnel, while participation in the creation and scaling of high-tech industries remains limited. As a result, Ukraine acts more as a supplier of human and scientific and technical capital for global innovation systems than as one of the key centers for the formation of technological breakthroughs.

Further strengthening of Ukraine's position in the global innovation environment requires comprehensive improvement of the institutional base, intensification of business innovation, development of innovation infrastructure, as well as formation of effective mechanisms for commercialization of scientific research and development results. The implementation of these areas can contribute to increasing the competitiveness of the national economy and

strengthening the role of Ukraine in the system of international economic relations based on innovation.

У роботі здійснено комплексний аналіз позиції України у системі міжнародних економічних відносин з точки зору інноваційного розвитку на основі статистичних даних Global Innovation Index за 2019–2025 роки. Дослідження спрямоване на виявлення ключових тенденцій та структурних особливостей інноваційної системи України. У процесі аналізу розглянуто динаміку загального рейтингу України у глобальному інноваційному середовищі, а також детально проаналізовано основні складові інноваційного індексу, зокрема інституціональне середовище, людський капітал і дослідження, інноваційну інфраструктуру, складність ринку, складність бізнесу, знання та технологічні результати.

На основі проведеного аналізу встановлено, що інноваційний розвиток України характеризується суперечливими тенденціями. Країна демонструє наявність значного наукового та освітнього потенціалу, що проявляється у відносно стабільних позиціях у складових, пов'язаних із генерацією знань, науковими дослідженнями та підготовкою висококваліфікованих фахівців. Водночас простежується низька ефективність інституціонального середовища, недостатній розвиток інноваційної інфраструктури, обмежений доступ до фінансових ресурсів для інноваційної діяльності, а також недостатній рівень взаємодії між наукою, бізнесом і державою, що суттєво стримує процес комерціалізації наукових результатів та впровадження технологічних розробок у реальний сектор економіки.

В роботі обґрунтовано, що сучасна модель інноваційного розвитку України має ознаки структурної диспропорції між потенціалом створення нових знань і можливостями їх економічного використання. У системі міжнародних економічних відносин це зумовлює специфічну роль України як країни, що переважно експортує інтелектуальний потенціал, наукові розробки та висококваліфіковані кадри, тоді як участь у створенні та масштабуванні високотехнологічних виробництв залишається обмеженою. В результаті Україна виступає радше постачальником людського та науково-технічного капіталу для глобальних інноваційних систем, ніж одним із ключових центрів формування технологічних проривів.

Подальше зміцнення позицій України у глобальному інноваційному

середовищі потребує комплексного вдосконалення інституціональної бази, активізації інноваційної діяльності бізнесу, розвитку інноваційної інфраструктури, а також формування ефективних механізмів комерціалізації результатів наукових досліджень і розробок. Реалізація цих напрямів здатна сприяти підвищенню конкурентоспроможності національної економіки та посиленню ролі України в системі міжнародних економічних відносин на основі інновацій.

Keywords: *innovative development, strategic growth, global innovation index, international economic relations.*

Ключові слова: *інноваційний розвиток, стратегічне зростання, глобальний інноваційний індекс, міжнародні економічні відносини.*

The problem statement in general form and its connection with important scientific or practical tasks. The involvement of any country in international economic relations is expressed in various aspects of its functioning, in particular through participation in international trade in services and goods, technology transfer and knowledge exchange, capital movement, implementation of international monetary and settlement relations and labor migration. However, there is one generalizing factor that is a strategic determinant of the deepening of the country's involvement in processes related to increasing the significance and strengthening the role of the country in international economic relations - achieving a higher level of competitiveness of the national economy.

The competitiveness of the country directly depends on the level of innovative activity of national economic entities. In this case, this applies not only to the ability to generate new knowledge by business representatives, but also extends to state institutions, in particular research institutions, higher education institutions and other structures involved in forming an environment for the development of knowledge, skills, talents.

At present, against the backdrop of geopolitical crises, the competitiveness of the Ukrainian economy is largely supported by the transition to digital technologies. This poses a need for researchers to study the consequences of

digitalization of the economy in the context of its impact on the country's role in international economic relations and to identify strategic determinants of the further development of the country's competitiveness based on existing achievements.

Analysis of recent research and publications. A special role in the modernization of the Ukrainian economy and the stimulation of innovative development is played by the European integration course. Many researchers emphasize the need to use in Ukraine analogs of organizational forms, the effectiveness of which in the context of scientific developments has been proven by the example of the member states of the European Union. In particular, in his monograph Mrchenko T. V. determines the need to create and develop such organizational forms as scientific and technological parks, venture funds, special economic zones, financial and industrial groups, clusters [1].

Yanovska V. P. and Gurochkina V. V. also emphasize the importance of Ukraine's integration into the production networks of the European Union. Based on the analysis, the researchers note that since 2014, Ukraine has adjusted its foreign economic policy by expanding partnership and trade relations with countries in the European region. [2].

The competitiveness of the national economy is the subject of study by many scientists, which has led to the presence of various definitions of this term. In the contextual framework of the study of the innovative aspect of Ukraine's disposition in the system of international economic relations, the definition of competitiveness will be used, according to which it is manifested in the ability of the national economy, both real and potential, not only to master but also to create, use and distribute innovative solutions better than those of competitors and on better terms. [**Ошибка! Источник ссылки не найден.**].

The issue of assessing Ukraine's competitiveness has received much attention from domestic scientists. For example, Cherep O. G., Kurdupa V. [4] investigate Ukraine's competitiveness through human capital development indices, foreign direct investment and other indicators.

Mazaraki A., Melnyk T., Kireitseva O. focused on the European integration aspect, analyzing the dynamics of Ukraine's macroeconomic indicators and indicators of export-import activity development. [5].

Pedchenko N. S., Kononenko Zh. A., Zinchenko O. M. focused on the study of Ukraine's competitiveness in the context of the development of the IT industry [6].

In summary, a review of the relevant research and publications indicates that scholars consistently emphasize the critical importance of recognizing and leveraging a country's innovative potential. They highlight that the activation of appropriate institutional, economic, and technological conditions is essential to fully realize this potential, thereby reinforcing the nation's capacity to maintain and strengthen its strategic position within the system of international economic relations. The consensus across the literature underscores that innovation is not merely a driver of technological advancement, but a fundamental determinant of national competitiveness, global integration, and sustainable economic growth.

Presentation of the main material. The innovative potential of the Ukrainian economy largely depends on the successful integration of domestic innovative firms into global markets. These firms not only serve as primary drivers of technological advancement but also play a pivotal role in shaping the country's international innovation profile, thereby enhancing its competitiveness in the knowledge-based global economy. By participating in transnational networks, engaging in foreign partnerships, and accessing international funding and technology channels, innovative companies create the structural and institutional prerequisites necessary for the sustained development of national innovation systems.

Moreover, their activities facilitate the diffusion of advanced technologies, promote the commercialization of research outputs, and stimulate the development of high-value-added sectors, which collectively strengthen Ukraine's capacity to generate high-tech exports and foster long-term economic growth.

Consequently, the ability of Ukrainian firms to effectively operate within

global innovation ecosystems represents a critical determinant of the country's broader economic modernization and its strategic positioning in the international arena.

Table 1. Performance of innovation activities of Ukrainian businesses

Company, year of establishment	Industry, product, specialization	Comment
Creatio, 2002	No-code (development without programming) / AI (artificial intelligence).	In 2023, the company attracted 200 million USD in investments, with an estimated value of approximately 1.2 billion USD. Became a new unicorn in 2024.
Grammarly, 2009	AI (artificial intelligence) / SaaS (software as a service)	One of the most expensive Ukrainian startups. Purchase of Coda (2024), Superhuman (2025), transformation into an AI platform. In 2025, 1 billion USD of investments were attracted with an estimated value of the company of approximately 8 billion USD.
AjaxSystems, 2011	IoT (Internet of Things) / Security (security systems)	Leader in the market for the development of technological security systems in Europe. The company has unicorn status among startups as it is valued by investors at over 1 billion USD.
GitLab, 2011	DevOps (development + operations, software development automation)	DevOps leader. As of 2026, the company's capitalization is 3.88 billion USD.
People.ai., 2016	AI (artificial intelligence) / Big Data (big data analysis)	In 2021, it received unicorn status with capitalization of 1.1 billion USD. In 2026, every 10 million USD will bring companies approximately 5 million USD during the year.
Fintech Farm, 2020	2020 FinTech (financial technologies)	The first Fintech-unicorn – Monobank ecosystem. Over 45 million USD of investments.

Source: compiled by the authors based on [7; 8; 9; 10; 11; 12].

The overview of the information presented in Table 1 shows that Ukrainian companies are actively attracting international investments, which is confirmed by the transition to the unicorn category, which means an increase in investment volumes of over 1 billion USD. At the same time, it is seen that innovative activity is shifting towards artificial intelligence and deep-tech. This means that Ukraine is

integrated into international economic relations not only as an exporter of raw materials but also as a supplier of innovative technologies.

At the same time, according to StartUP Ranking in 2025, the Send Pulse startup, which is aimed at creating an intelligent user profile to deepen the personalization of the information environment, took first place in Ukraine and only 78th place in the world [13].

The relationship between the effectiveness of business innovation and the country's involvement in the system of international economic relations is demonstrated by the level of its integration into the world economy. In the current era of deep digitalization of all spheres of economic activity, this level depends on such key aspects as the volume of exports, including high-tech products and services, and participation in the transfer of technologies and knowledge. These processes are aimed at attracting investment, which allows strengthening the country's position, in particular through additional financing of research and innovation activities. Thus, the country's involvement in the system of international economic relations in the context of innovation activity is one of the components of the country's overall image on the world stage.

The results of calculations of the dynamics of the rates of change in spending by Ukrainian enterprises on innovation and research and development, which are presented in Fig. 1. Over the past 14 years, demonstrate that the rates of change in spending by Ukrainian enterprises on innovation have the greatest fluctuations. So, in 2010, domestic enterprises spent 4,775,235.7 thousand UAH on innovations, in 2011 it was already 7,585,550.7 thousand UAH, the next such sharp increase in innovation volumes occurred in 2015 (13,427,034.7 thousand UAH) compared to 2014 (6,540,272 thousand UAH). The largest volumes of innovation expenditures were in 2016 and amounted to 22,035,970.7 thousand UAH.

After 2016, the volumes gradually decreased. Already in 2017 they amounted to 7,704,114.4 thousand UAH. but already in 2020, the volumes of expenditures were increased to 12,297,861 thousand UAH. 2022 was a shock for

business activity, but it should be noted that in 2024, innovation spending by domestic enterprises is estimated at UAH 10,818,397.8 thousand, which is almost equal to the volume of 2018.

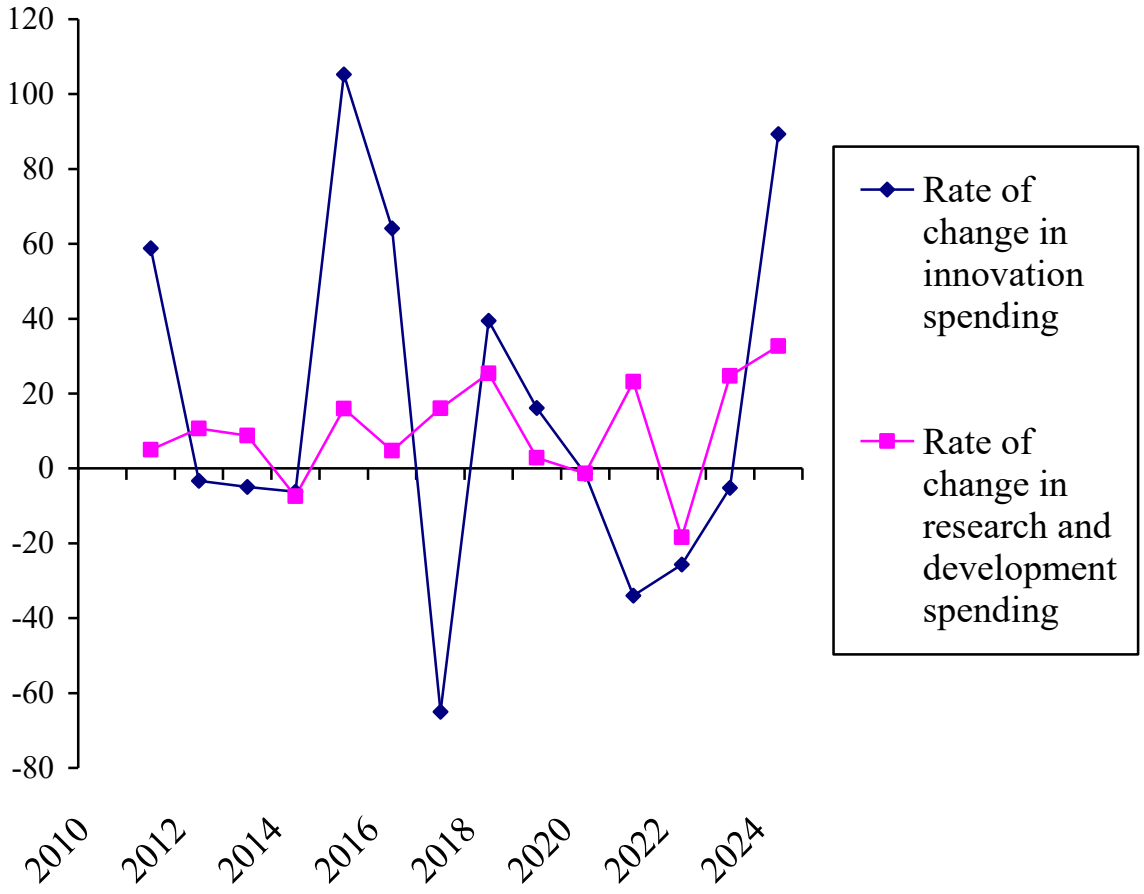

Fig. 1. Dynamics of the rate of change in domestic enterprises' spending on innovation and research and development (2010-2024)

Source: calculated and grouped by authors according to data [14]

During the analyzed period, research and development expenses demonstrate greater stability. Thus, in 2010, their volume was 8107057.4 thousand UAH, and in 2013 it was already 10248537.8 thousand UAH. However, after a drop in 2014 to 9487512.7 thousand UAH, the following occurred in 2020 from 17254629.7 thousand UAH. to 17022419.3 thousand UAH.

It should be noted that the rate of change in innovation expenses according to the results of 2022 decreased by -25.71%, while research and development expenses decreased by -18.38%.

That is, the presented data demonstrate that Ukrainian enterprises finance research and development activities more stably. However, in this context, it is interesting to analyze the rate of change in the number of employees of enterprises involved in research and development (Fig. 2).

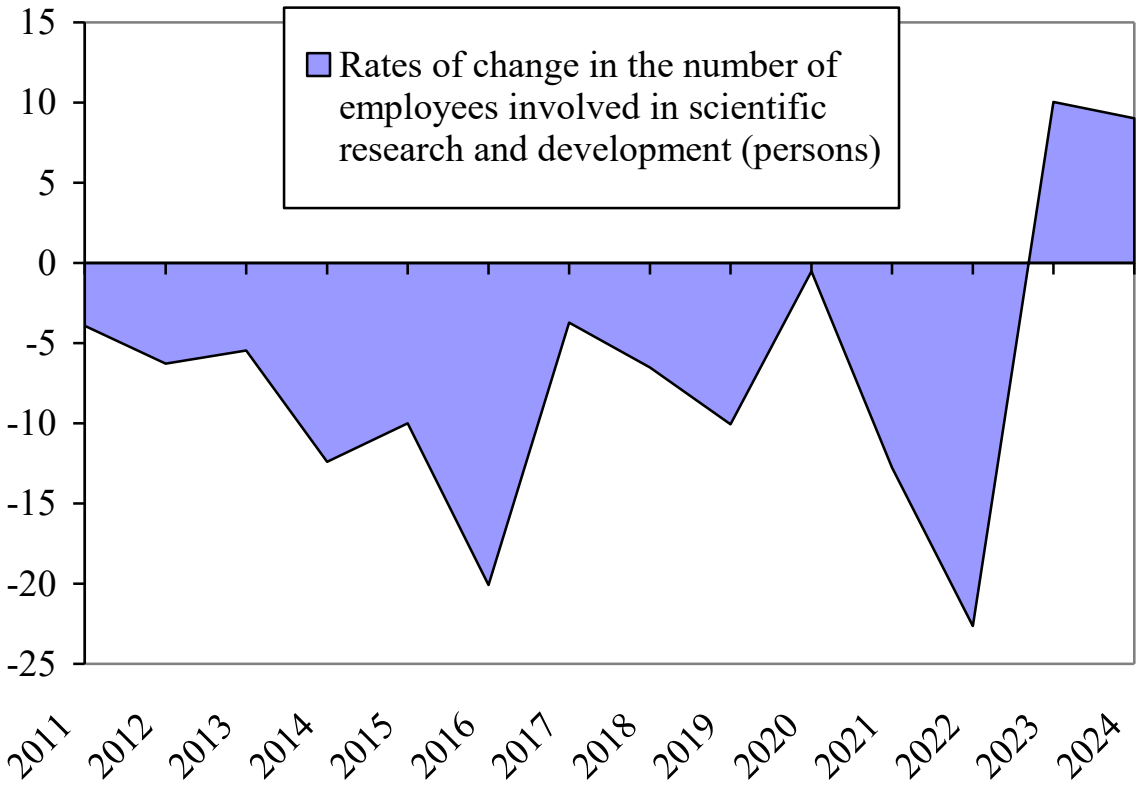

Fig. 2. Dynamics of the rate of change in the number of employees involved in scientific research and development (2010-2024)

Source: calculated and grouped by the authors based on data [14]

As shown in Fig. 2, the number of employees involved in research and development at domestic enterprises gradually decreased from 2010 to 2017. At the same time, from 2023 to 2024, there was a sharp increase in this indicator.

For a comprehensive understanding of Ukraine's disposition in international economic relations in the innovation context, it is advisable to analyze the data of the Global Innovation Index from the World Intellectual Property Organization. This index has been ranking countries by their innovation potential since 2007, and since 2011, the World Intellectual Property Organization has been involved in this process. Currently, it is a fairly effective tool, the use of which allows you to

compare the innovation potential of 130 countries around the world, including Ukraine (Fig. 3).

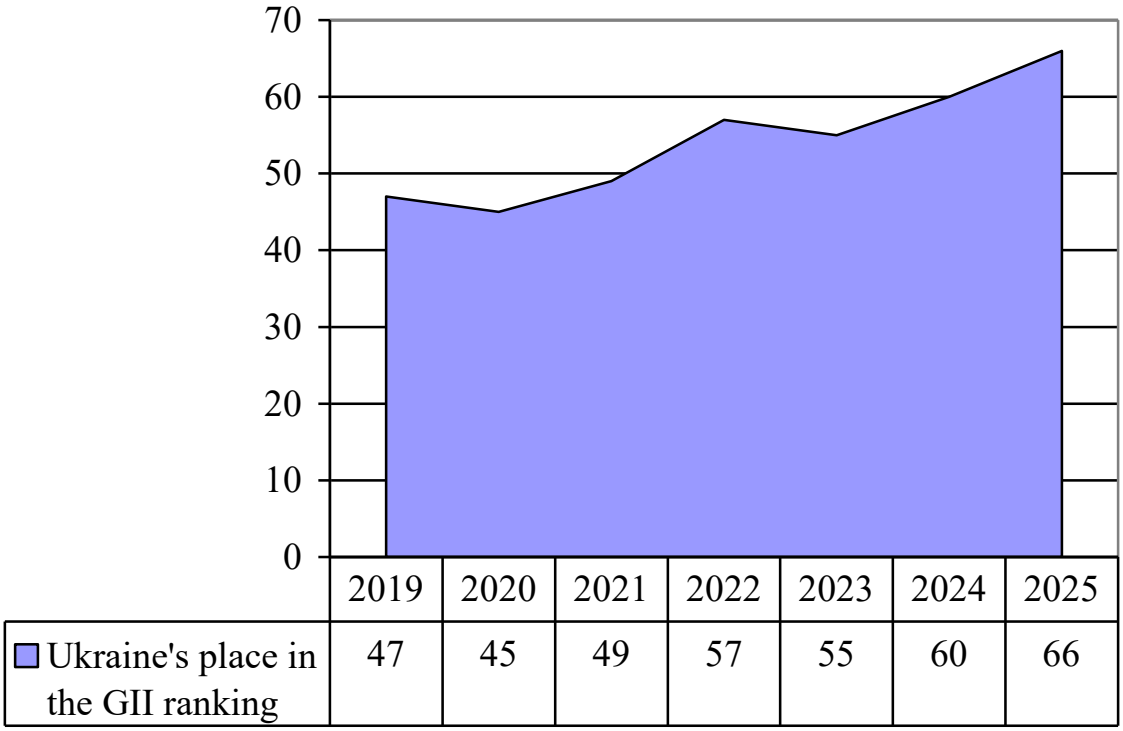

Fig. 3. Ukraine's place in the Global Innovation Index ranking (2019-2025)

Source: summarized by the authors based on [17; 17; 19; 20; 21]

As illustrated in Figure 3, Ukraine's position in the Global Innovation Index has exhibited a gradual decline over the past six years. When assessing the country's role in the system of international economic relations from the perspective of innovative development, it is important to recognize that this downward trend cannot be interpreted merely as a temporary decrease in ranking. Rather, it reflects a more structural issue regarding Ukraine's peripheral status within the European network of innovation-driven economies.

The highest rankings achieved by Ukraine in 2020 were 45th globally and 30th within the European region, whereas other European countries such as Switzerland, Sweden, the Netherlands, and the United Kingdom consistently occupy top positions and maintain their status as innovation leaders. A longitudinal

analysis of Ukraine's main innovation indicators confirms that the observed changes over the six-year period do not represent a short-term fluctuation but rather indicate a sustained structural disadvantage in the context of regional innovative activity.

A key factor influencing the development of the country's innovation economy is the level of expenditure on research and development (R&D). Figure 1 presents R&D spending according to data from the State Statistics Service of Ukraine. The Global Innovation Index contextualizes this measure by expressing it as a percentage of the country's gross domestic product (GDP) each year. In 2019, R&D expenditure accounted for 0.47% of GDP, followed by a gradual decline to 0.41% in 2020 and 0.38% in 2021. From 2022 to 2025, the share of R&D spending stabilized at 0.33% of GDP, highlighting the limited financial commitment to innovation and its implications for Ukraine's long-term competitiveness in high-tech sectors.

It is important to highlight that, according to Eurostat, research and development expenditure among European Union countries in 2024 reached approximately 2.2% of GDP [22]. By comparison, Ukraine allocates roughly 6.7 times less to scientific development than the EU average, indicating a significant funding gap. The reinforcement of innovation activity in any country is highly dependent on sufficient investment in research and development. In the context of Ukraine, the persistently low level of financial commitment represents a critical factor limiting the country's ability to strengthen its position within the global innovation landscape.

Technological outputs, particularly patent activity, provide a robust and objective measure of a country's innovative performance. According to data from the World Intellectual Property Organization, the trends in Ukrainian patenting activity between 2019 and 2024 are summarized in Figure 4.

These data reveal a pronounced decline in technological innovation over the period under review. Specifically, the number of patent applications filed by Ukrainian residents decreased by 47.9%, reflecting a substantial contraction in the

country's capacity to generate and formalize new technological knowledge. This decline underscores the structural challenges facing Ukraine's innovation ecosystem, including insufficient R&D investment, reduced research infrastructure, and limited mechanisms for the commercialization of scientific outputs.

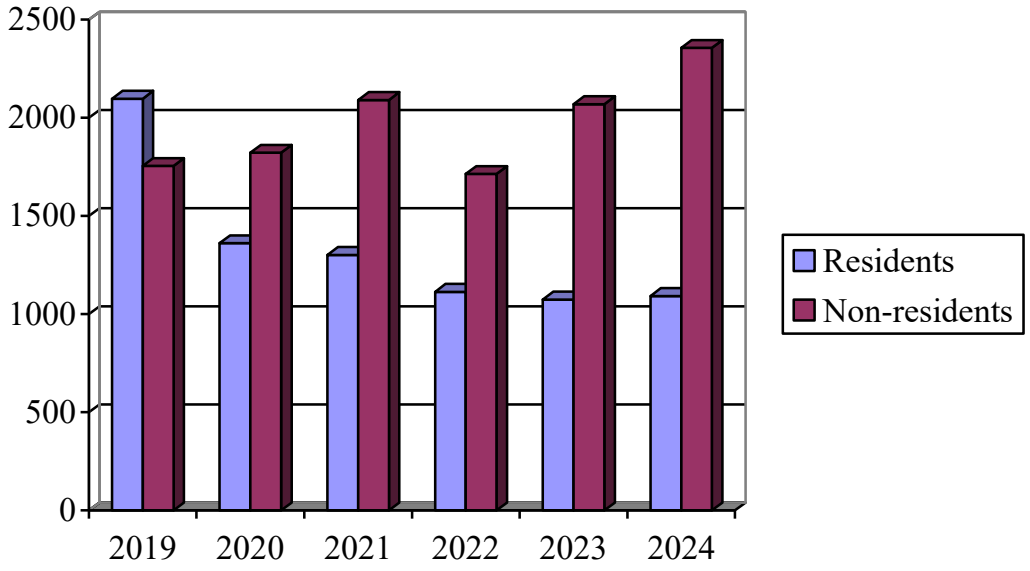

Fig. 4. Number of patent applications in Ukraine from residents and non-residents (2019-2024)

Source: summarized by the authors based on [23]

At the same time, there is an increase in the number of patent applications from non-residents of Ukraine by 34.2%. Among other things, the presented data indicate that the share of foreign technologies in the patent field of Ukraine is increasing and, accordingly, national researchers and developers are gradually losing dominance in their own patent field.

The share of patent applications in Ukraine from non-residents of the country in 2024 was 68.3%, which is a signal of the gradual technological dependence of the country, since most of the latest technologies presented on the market belong to foreign companies.

It should be noted that the presented statistical data demonstrate not only the state of science in the country as a driver of the development of innovative activity,

they characterize the structural position of the country in the global knowledge economy, which can be reduced to the following provisions:

decreasing the level of generation of its own technological solutions;

gradual establishment of the country as a market for technologies of other countries;

formation of the role of the country-consumer of innovations in the system of international economic relations.

However, the absolute number of patent applications should not be interpreted as a direct indicator of an economy's innovativeness, as it does not capture the level of commercialization or practical application of the technologies. The mere existence of patents does not guarantee that these innovations are effectively utilized or brought to market. Consequently, it is advisable to assess patent activity in conjunction with other indicators, such as high-tech exports and research and development expenditure, to obtain a more accurate picture of the country's innovation performance. Additionally, it is useful to consider methodological approaches commonly applied by researchers from the Organisation for Economic Co-operation and Development (OECD), which evaluate the efficiency of transforming economic and scientific resources into technological outcomes by analyzing ratios such as patents relative to GDP and per capita.

There are no publicly available indicators for recent years on the volume of exports of high-tech products in Ukraine, however, the data presented for the period from 2019 to 2024 on high-tech exports (% of industrial exports) demonstrate that the share of high technologies in Ukraine's industrial exports in 2024 amounted to 6%, for comparison, in Germany it reached 18%, and in South Korea, as one of the leading innovators, it was 36% [24].

Financial indicators of Ukraine's high-tech exports, which are publicly available for the period from 2019 to 2023, are presented in Fig. 5.

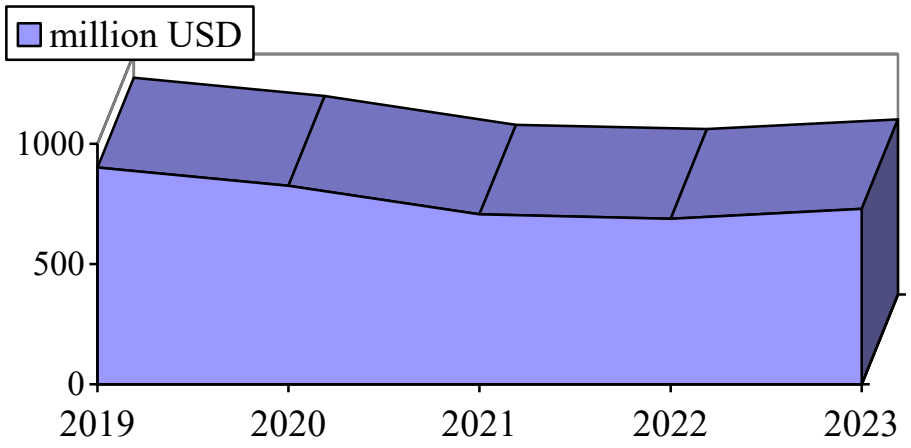

Fig. 5. Export of high-tech products in Ukraine (2019-2023)

Source: summarized by the authors based on [25]

An analysis of the data presented above highlights the stagnation in high-tech exports. Specifically, the evidence indicates that the number of registered patents is declining, technological exports are not experiencing growth, and their share within the national export structure remains minimal. These findings suggest that the majority of patents generated in Ukraine are not effectively utilized in industrial production nor commercialized through international technology exports. Consequently, the potential for translating scientific and technological outputs into tangible economic value remains limited.

The methodology often used by researchers of the Organization for Economic Cooperation and Development also confirms the insignificant role of Ukraine in the system of international economic relations (Fig. 6).

Thus, in 2024, there were 86 patents per million population in Ukraine, which is significantly lower than the indicators of innovatively active countries. At the same time, there are 21.7 patents per billion dollars of GDP, while in the European Union countries this indicator often exceeds 80 units. [26; 27].

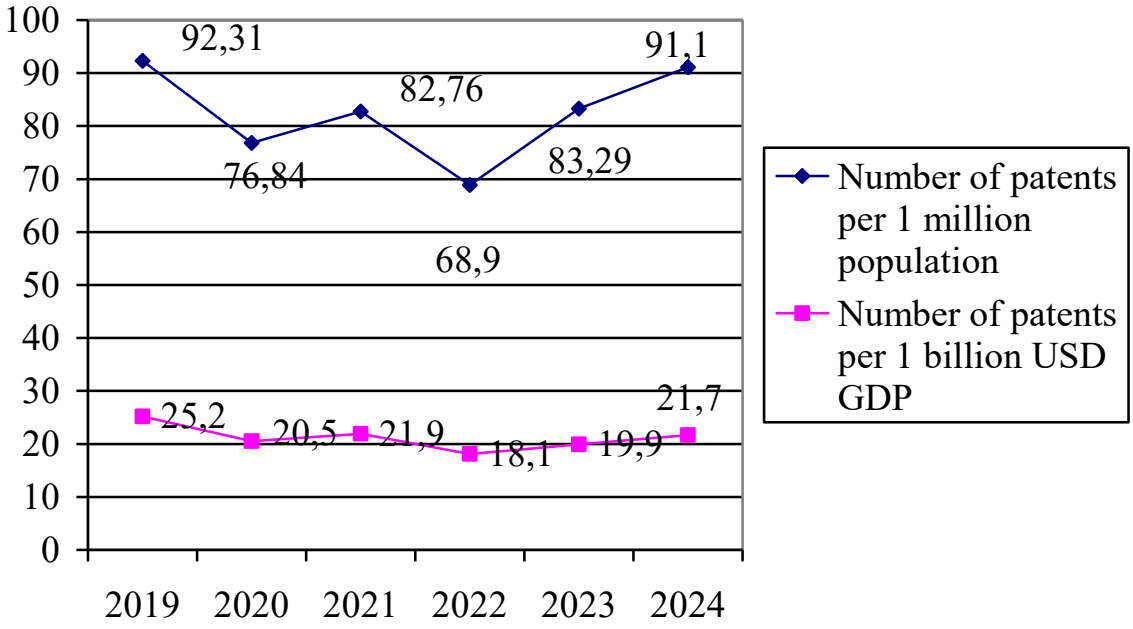

Fig. 6. Dynamics of technological intensity of Ukraine (2019-2024)

Source: calculated by the authors based on [26; 27; 28]

Overall, the efficiency with which economic resources are transformed into high-tech outputs in Ukraine remains low. Although the country generates technological patents, its ability to scale these innovations into high-tech exports for the global market is limited. This indicates that while systems for the accumulation, transfer, and utilization of knowledge exist, their commercialization is constrained.

According to the Global Innovation Index, the Institutions component exerts the most significant negative influence on Ukraine's ranking. This component evaluates the quality of public administration, regulatory frameworks, political stability, and the effectiveness of the legal system. In the Ukrainian context, the score for this component highlights the lack of institutional incentives to stimulate innovation, with the country ranking 108th in 2025.

By 2024, a moderate improvement in the human capital indicator was observed, suggesting a temporary strengthening of the workforce's educational and research capacities. However, in 2025, the indicator declined sharply to 65th place,

reflecting a reduction in scientific research activity and the partial loss of research infrastructure. Historically, human capital has been one of Ukraine's primary strengths within the global innovation system; yet, these developments indicate a gradual erosion of this advantage, posing substantial challenges for sustaining the country's innovation potential and its competitive position in international economic relations.

Infrastructure limitations also represent a significant barrier to the development of innovation in Ukraine. Prior to 2021, the country held a relatively weak position in this component of the Global Innovation Index. Between 2022 and 2024, however, progress was observed through the deepening digitalization of public services and the expansion of the IT ecosystem, which is reflected in the improvement of Ukraine's ranking within this category. These developments indicate that while infrastructure constraints persist, targeted investments in digital and technological infrastructure can contribute to enhancing the country's innovative capacity.

Conclusions. The results of the analysis indicate that Ukraine occupies an unstable and structurally constrained position within the global innovation system, which in turn shapes its distinctive role in the system of international economic relations from the perspective of innovative development.

The country's overall performance in the Global Innovation Index exhibits a persistent downward trend. In 2019, Ukraine was ranked 47th globally, whereas by 2025 its position had declined to 66th. This trajectory suggests that, although innovation activities continue to develop, they are progressing at a slower pace than in most other countries, leading to a gradual erosion of Ukraine's competitive standing in the global innovation environment.

The structure of innovation development in Ukraine exhibits a pronounced internal imbalance between the generation of new knowledge and its economic implementation. Available data indicate that the country performs relatively well in indicators related to innovations and technological outputs, reflecting the existence of substantial scientific potential and educational resources. However, weak

performance in institutional frameworks, market sophistication, and infrastructure significantly constrains the ability to translate these capabilities into competitive technological products. Consequently, a large proportion of the intellectual resources generated either fails to reach the production stage or is absorbed into global technological value chains primarily through foreign enterprises, rather than being domestically commercialized. This structural misalignment underscores the need for targeted policy interventions to strengthen the institutional and infrastructural foundations necessary for effective knowledge commercialization and sustainable innovation-driven economic growth.

The primary constraint on Ukraine's innovative development remains the weakness of its institutional environment. Low rankings in the relevant components of the Global Innovation Index highlight persistent issues with regulatory stability, the effectiveness of public administration, and the protection of intellectual property. Within the global innovation economy, institutions play a critical role in determining a state's capacity to attract research and development investment, establish venture markets, and support technological entrepreneurship. The underdevelopment of these mechanisms substantially restricts Ukraine's innovation competitiveness.

An analysis of the structure of innovative activity further reveals a low level of business engagement in both the creation and scaling of innovations. As a result, Ukraine increasingly functions as a supplier of intellectual resources rather than evolving into a hub of high-tech production. The country's integration into the global economy is therefore largely realized through the export of intellectual capital, participation in international scientific research, and the operation of outsourcing technology centers. This pattern underscores a structural challenge in translating national knowledge and research outputs into domestic high-value production, limiting the country's capacity to fully leverage its innovation potential.

Litrature

1. Марченко Т. В. Міжнародні інноваційні програми як інструмент євроінтеграції України : монографія. Чернівці: Чернівец. нац. ун-т, 2021. 220с.

2. Яновська В. П., Гурочкіна В. В. Україна у глобальних ланцюгах створення вартості: виклики та перспективи економічного розвитку. Економіка та суспільство. 2024. № 65. DOI: https://doi.org/10.32782/2524-0072/2024-65-108 (дата звернення: 11.03.2026).

3. Покришка Д. С. Технологічна конкурентоспроможність національної економіки як чинник економічної безпеки України: дис. канд. екон. наук: 21.04.01. Київ. 303 с. Рукопис, 2021

4. Череп О., Курдупа В. Оцінка конкурентоспроможності України. Вісник Хмельницького національного університету. Економічні науки. 2022. №302(1). С. 31-36. URL: https://doi.org/10.31891/2307-5740-2022-302-1-5 (дата звернення: 24.03.2026).

5. Мазаракі А., Мельник Т. Конкурентоспроможність української економіки в реаліях європейської проблематики . Ius Modernum. 2025. №138. С. 4–22. DOI:https://doi.org/10.31617/3.2025(138)01 (дата звернення: 18.03.2026).

6. Педченко Н. С., Кононенко Ж. А., & Зінченко О. М. Конкурентоспроможність економіки в умовах розвитку IT-індустрії та цифрових трансформацій. *Проблеми сучасних трансформацій. Серія: економіка та управління*. 2024. № 16. DOI: https://doi.org/10.54929/2786-5738-2024-16-03-02 (дата звернення: 11.03.2026).

7. GitLab reports 23% revenue growth in fourth quarter. *Investing.com Australia*. 2026. URL: https://au.investing.com/news/company-news/gitlab-reports-23-revenue-growth-in-fourth-quarter-93CH-4290660 (дата звернення: 22.03.2026).

8. Платонова А., Чернишов П. Ніколи не порушуй власних правил. Засновник People.ai Олег Рогинський про штучний інтелект, філантропію і диджиталізацію України. 2026. *Forbes.ua*. https://forbes.ua/richest/oleg-roginskiy-23042021-1445 (дата звернення: 22.03.2026).

9. Кабачинський І. $1 млрд для Grammarly - найбільше фінансування в історії українського tech. 2025. *Scroll.media*. URL: https://scroll.media/2025/05/30/1-mlrd-dlya-grammarly-najbilshe-finansuvannya-

v-istoriyi-ukrayinskogo-tech/ (дата звернення: 22.03.2026).

10. Reverchuk L. Kyiv IT market research reports and industry analysis. *EchoGlobal Tech*. 2026. URL: https://echoglobal.tech/kyiv-it-market-review-industry-research/ (дата звернення: 22.03.2026).

11. Ukraine's tech market: 2025 report. Executive Summary. N-ix. 2025. URL: https://www.n-ix.com/ukraine-tech-market-2025-report/ (дата звернення: 22.03.2026).

12. Дудко В., Шевчук С. Випробування Азією. Fintech Farm Дмитра Дубілета знайшов нового інвестора й має великі плани на Індію, Киргизстан та, ймовірно, Марокко. Як справи у одного з найбільших українських фінтеків. *Forbes.ua*. 2026. URL: https://forbes.ua/money/ispit-azieyu-fintech-farm-dmitra-dubileta-znayshov-novogo-investora-y-mae-veliki-plani-na-indiyu-kirgizstan-ta-ymovirno-marokko-i-virmeniyu-yak-spravi-u-odnogo-z-naybilshikh-ukrainskikh-fintekiv-14052024-21115 (дата звернення: 23.03.2026).

13. StartUP Ranking. URL: https://www.startupranking.com (дата звернення: 11.03.2026).

14. Державна служба статистики України. Офіційнй сайт. URL: https://stat.gov.ua (дата звернення: 30.03.2026).

15. The Global Innovation Index 2019: Creating Healthy Lives—The Future of Medical Innovation. Cornell University, INSEAD, and WIPO. Ithaca, Fontainebleau, and Geneva. URL: https://tind.wipo.int/record/40245?v=pdf. (дата звернення: 30.03.2026).

16. The Global Innovation Index 2020: Who Will Finance Innovation? Cornell University, INSEAD, and WIPO. Ithaca, Fontainebleau, and Geneva. URL: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020.pdf. (дата звернення: 30.03.2026).

17. Global Innovation Index 2021: Tracking Innovation through the COVID-19 Crisis. World Intellectual Property Organization. URL: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2021.pdf. (дата звернення: 30.03.2026).

18. Global Innovation Index 2022: What is the future of innovation-driven growth? World Intellectual Property Organization. DOI 10.34667/tind.46596 (дата звернення: 30.03.2026).

19. Global Innovation Index 2023: Innovation in the face of uncertainty. World Intellectual Property Organization. DOI:10.34667/tind.48220 (дата

звернення: 30.03.2026).

20. Global Innovation Index 2024: Unlocking the Promise of Social Entrepreneurship. World Intellectual Property Organization. DOI:10.34667/tind.50062 (дата звернення: 30.03.2026).

21. Global Innovation Index 2025: Executive Version. World Intellectual Property Organization. URL: https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2025-exec-en-global-innovation-index-2025.pdf (дата звернення: 01.04.2026).

22. Gross domestic expenditure on research and development, 2024. Statistic Explained. EuroStat. URL: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=R%26D_expenditure (дата звернення: 04.04.2026).

23. WIPO IP Statistics Data Center. World Intellectual Property Organization. URL: https://www3.wipo.int/ipstats/ips-search/countryprofiles (дата звернення: 04.04.2026).

24. High-technology exports (% of manufactured exports). World Bank Open Data. URL: https://data.worldbank.org/indicator/TX.VAL.TECH.MF.ZS?locations=DE-UA-KR (дата звернення: 04.04.2026).

25. Ukraine High tech exports - data, chart. TheGlobalEconomy.com. URL: https://www.theglobaleconomy.com/Ukraine/high_tech_exports/ (дата звернення: 06.04.2026).

26. IP Statistics Data Center. World Intellectual Property Organization. URL: https://www3.wipo.int/ipstats/ips-search/search-result?type=IPS&selectedTab=countryprofiles&indicator=660&reportType=11&fromYear=2019&toYear=2024&ipsOffSelValues=UA (дата звернення: 06.04.2026).

27. GDP (current US$) - Ukraine. World Bank Open Data. https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=UA (дата звернення: 06.04.2026).

28. Population – Ukraine. World Bank Open Data. URL: https://data.worldbank.org/indicator/SP.POP.TOTL?locations=UA (дата звернення: 06.04.2026).

References

1. Marchenko, T. V. (2021), Mizhnarodni innovatsijni prohramy iak instrument ievrointehratsii Ukrainy [International innovation programs as a tool for Ukraine's European integration], Chernivets. nats. un-t, Chernivtsi, Ukraine.
2. Yanovska, V., and Gurochkina, V. (2024), "Ukraine in global value chains: challenges and prospects for economic development", *Economy and Society*, vol. 65. DOI: https://doi.org/10.32782/2524-0072/2024-65-108.
3. Pokryshka, D. S. (2021), "Technological competitiveness of the national economy as a factor of economic security of Ukraine", Ph.D. Thesis, Economy, Kyiv, Ukraine.
4. Cherep, O. and Kurdupa, V. (2022), "Assessment of the competitiveness of Ukraine", Ekonomichni nauky, vol.302(1). pp. 31-36. URL: https://doi.org/10.31891/2307-5740-2022-302-1-5
5. Mazaraki, A. and Mel'nyk, T. (2025), "Competitiveness of the Ukrainian economy in the realities of European issues", Ius Modernum, vol.138, pp. 4–22. DOI: https://doi.org/10.31617/3.2025(138)01.
6. Pedchenko, N. S., Kononenko, Zh. A., & Zinchenko, O. M. (2024), "Competitiveness of the economy in the conditions of development of the IT industry and digital transformations", Problemy suchasnykh transformatsij. Seriia: ekonomika ta upravlinnia, vol. 16. DOI: https://doi.org/10.54929/2786-5738-2024-16-03-02
7. Investing.com Australia. (2026), "GitLab reports 23% revenue growth in fourth quarter", available at: https://au.investing.com/news/company-news/gitlab-reports-23-revenue-growth-in-fourth-quarter-93CH-4290660 (Accessed 22.03.2026).
8. Platonova, A. and Chernyshov, P. (2026), "Never break your own rules. People.ai founder Oleg Roginsky on artificial intelligence, philanthropy and digitalization of Ukraine", available at: https://forbes.ua/richest/oleg-roginskiy-23042021-1445 (Accessed 22.03.2026).
9. Scroll.media (2025), "$1 billion for Grammarly - the largest funding in the history of Ukrainian tech", available at: https://scroll.media/2025/05/30/1-mlrd-dlya-grammarly-najbilshe-finansuvannya-v-istoriyi-ukrayinskogo-tech/ (Accessed 22.03.2026).
10. Reverchuk, L. (2026), "Kyiv IT market research reports and industry analysis", EchoGlobal Tech, available at: https://echoglobal.tech/kyiv-it-market-

review-industry-research/ (Accessed 22.03.2026).

11. N-ix (2025), “Ukraine's tech market: 2025 report. Executive Summary”, available at: https://www.n-ix.com/ukraine-tech-market-2025-report/ (Accessed 22.03.2026).

12. Dudko, V. and Shevchuk, S. (2026), “Asia's trials. Dmytro Dubilet's Fintech Farm has found a new investor and has big plans for India, Kyrgyzstan and, probably, Morocco. How is one of the largest Ukrainian fintechs doing?”, available at: https://forbes.ua/money/ispit-azieyu-fintech-farm-dmitra-dubileta-znayshov-novogo-investora-y-mae-veliki-plani-na-indiyu-kirgizstan-ta-ymovirno-marokko-i-virmeniyu-yak-spravi-u-odnogo-z-naybilshikh-ukrainskikh-fintekiv-14052024-21115 (Accessed 23.03.2026).

13. StartUP Ranking (2026), “available at: https://www.startupranking.com (Accessed 11.03.2026).

14. State Statistics Service of Ukraine (2026), available at: https://stat.gov.ua (Accessed 30.03.2026).

15. Cornell University, INSEAD, and WIPO (2020), “The Global Innovation Index 2019: Creating Healthy Lives—The Future of Medical Innovation”, available at: https://tind.wipo.int/record/40245?v=pdf. (Accessed 30.03.2026).

16. Cornell University, INSEAD, and WIPO (2021), “The Global Innovation Index 2020: Who Will Finance Innovation?”, available at: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020.pdf. (Accessed 30.03.2026).

17. World Intellectual Property Organization (2022), “Global Innovation Index 2021: Tracking Innovation through the COVID-19 Crisis”, available at: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2021.pdf. (Accessed 30.03.2026).

18. World Intellectual Property Organization (2023), “Global Innovation Index 2022: What is the future of innovation-driven growth?”. DOI 10.34667/tind.46596

19. World Intellectual Property Organization (2024), “Global Innovation Index 2023: Innovation in the face of uncertainty”. DOI:10.34667/tind.48220

20. World Intellectual Property Organization (2025), “Global Innovation Index 2024: Unlocking the Promise of Social Entrepreneurship”. DOI:10.34667/tind.50062.

21. World Intellectual Property Organization (2025), “Global Innovation

Index 2025: Executive Version", available at: https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2025-exec-en-global-innovation-index-2025.pdf (Accessed 01.04.2026).

22. EuroStat (2024), "Gross domestic expenditure on research and development, 2024. Statistic Explained", available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=R%26D_expenditure (Accessed 04.04.2026).

23. World Intellectual Property Organization (2026), "WIPO IP Statistics Data Center", available at: https://www3.wipo.int/ipstats/ips-search/countryprofiles (Accessed 04.04.2026).

24. World Bank Open Data (2026), "High-technology exports (% of manufactured exports)", available at: https://data.worldbank.org/indicator/TX.VAL.TECH.MF.ZS?locations=DE-UA-KR (Accessed 04.04.2026).

25. TheGlobalEconomy.com (2026), "Ukraine High tech exports - data, chart", available at: https://www.theglobaleconomy.com/Ukraine/high_tech_exports/ (Accessed 06.04.2026).

26. World Intellectual Property Organization (2026), "IP Statistics Data Center", available at: https://www3.wipo.int/ipstats/ips-search/search-result?type=IPS&selectedTab=countryprofiles&indicator=660&reportType=11&fromYear=2019&toYear=2024&ipsOffSelValues=UA (Accessed 06.04.2026).

27. World Bank Open Data (2026), "GDP (current US$) - Ukraine", available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=UA (Accessed 06.04.2026).

28. World Bank Open Data (2026), "Population – Ukraine", available at: https://data.worldbank.org/indicator/SP.POP.TOTL?locations=UA (Accessed 06.04.2026).

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