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TRANSFORMATION OF UKRAINE'S INNOVATION POTENTIAL IN THE SYSTEM OF ECONOMIC SECURITY AND EUROPEAN INTEGRATION

The article presents a comprehensive comparative analysis of innovation development in Ukraine and selected European Union countries based on the European Innovation Scoreboard methodology for the period 2018–2025. It is substantiated that innovative development serves not only as a driver of competitiveness but also as a system-forming element of a state's economic security, as it determines the economy's capacity to withstand internal and external threats, ensure technological sovereignty, and maintain resilience to crisis shocks.

It is established that Ukraine significantly lags EU countries in most innovation indicators, which is due to both chronic structural imbalances (low levels of funding for research and development, weak innovation activity of businesses, and limited commercialization of research results) and the consequences of the full-scale war. Such a gap creates critical risks to economic security, particularly due to dependence on imported technologies, limited recovery capacity, and a low level of innovation autonomy.

The study analyses the dynamics of the Summary Innovation Index and its components, including human capital, public and private R&D financing, patent activity, collaboration among small and medium-sized enterprises, innovation expenditures, and export potential. It is found that Ukraine's innovation system is characterized by structural asymmetry: a relatively preserved human capital is combined with a critically low capacity for innovation commercialization and the formation of a closed innovation cycle. This reduces the effectiveness of transforming knowledge into drivers of economic security and increases the economy's vulnerability to structural and wartime shocks. Therefore, martial law has not only exacerbated existing

imbalances but also led to the destruction of certain segments of the innovation ecosystem that previously ensured relative competitive advantages.

It is shown that Ukraine's lag is predominantly structural in nature and does not diminish even during periods of economic stabilization. At the same time, potential growth directions are identified, associated with preserved human capital and the partial resilience of high-tech exports. On this basis, key priorities of state innovation policy are defined, aimed at increasing R&D funding, stimulating business innovation activity, developing institutional infrastructure, and integrating into the European Research Area.

Keywords: *innovative development, innovative potential, R&D, competitiveness, economic security, European integration, innovation policy, Summary Innovation Index, international investing, uncertainty.*

Statement of the problem. Innovative development is a key factor in enhancing the competitiveness of national economies in the context of globalisation and accelerating technological transformation. At the same time, under contemporary conditions, innovation acquires a broader functional significance, acting as a fundamental element of the state's economic security system, as it determines the level of technological independence, adaptability to crisis shocks, and the capacity for the reproduction of economic potential.

A country's ability to generate, implement and commercialise innovations determines not only the pace of its economic growth, but also its position in the international division of labour, the standards of living of its population and its resilience to external shocks. At the same time, under contemporary conditions, innovation acquires a broader functional significance, acting as a fundamental element of the state's economic security system, as it determines the level of technological independence, adaptability to crisis shocks, and the capacity for the reproduction of economic potential. In the context of Ukraine's European integration course, the issue of assessing its innovation potential in comparison with European Union member states is of relevance.

Despite a strong scientific and technical heritage and the ongoing European integration processes, Ukraine's innovation potential often remains lower compared to EU countries in terms of key indicators. This gap is particularly significant in the context of increasing competition, technological transformation and the need to strengthen national competitiveness. Since 2022, military aggression has created additional challenges for the functioning of the national innovation system, affecting research capacity, infrastructure and human capital. In the context of full-scale war, innovative potential becomes critically important as an instrument for ensuring economic security, as it determines the economy's capacity for rapid adaptation, infrastructure recovery, and support of the defence-industrial complex. In this context, a comprehensive assessment of Ukraine's innovation potential, based on key indicators of innovative development and aligned with European approaches, becomes essential for identifying existing gaps and supporting the formation of effective innovation policy.

Analysis of recent publications. The issues of innovative development and the assessment of innovative potential are at the heart of contemporary economic research. The theoretical principles laid down in the works of J. Schumpeter have been further developed in modern endogenous growth models, which emphasise the role of innovation, competition and the diffusion of knowledge as key factors in economic dynamics [1; 2; 3]. Contemporary research emphasises that a slowdown in the dissemination of knowledge and a decline in innovation activity can be significant causes of a slowdown in economic growth.

An important area of research is the development of methodological approaches to assessing innovation potential. The use of composite indicators, which allow for the synthesis of various

aspects of innovation activity at the macro level, dominates the contemporary literature. At the same time, researchers emphasise the sensitivity of results to the choice of indicators, weighting coefficients and normalisation methods, which can significantly influence countries positions in rankings [4; 5; 6; 7].

Among domestic and international studies, particular attention has been paid to analysing Ukraine's innovative development and its standing in international rankings. Structural problems within the innovation system and limited integration into the European Research Area have been identified [8], and negative trends in the dynamics of innovation indicators in recent years have been noted [9]. Alongside this, approaches to alternative assessment of innovation potential based on structural analysis and country clustering are being developed [10].

Modern research demonstrates that innovative development is not only a driver of economic growth but also a key prerequisite for economic security, ensuring the economy's adaptability to crisis shocks and its technological independence. Studies by both international and domestic scholars substantiate that an insufficient level of innovation activity generates systemic risks, particularly through increased external dependence and reduced economic resilience. In the work of C. Freeman, innovation is conceptualised as a system-forming factor of economic development, as it determines technological dynamics, competitiveness, and the capacity for structural adaptation [11]. Thus, innovative potential should be considered a fundamental component of economic security, defining the ability of a national economy to recover and achieve long-term development.

At the same time, contemporary scientific discourse increasingly emphasises the integration of innovation and economic security approaches. In particular, the works of Z. Varnalii conceptualise economic security as a systemic characteristic of national economic resilience, determined by the capacity for reproduction, adaptation, and resistance to internal and external threats, where innovative potential serves as one of the key structural elements of this resilience [12].

In turn, T. Onysenko, T. Kravchenko, and other scholars argue that under conditions of crisis transformations and wartime challenges, innovative and circular approaches to economic activity form a new paradigm of economic security, in which enterprises and economic systems are viewed as adaptive structures capable of self-recovery and enhanced resource efficiency. This expands the interpretation of innovative potential as a tool not only for development but also for ensuring economic resilience and security [13].

At the same time, despite a significant number of scientific works, issues relating to the comprehensive analysis of the dynamics of integrated innovation indicators and their components in a comparative assessment between Ukraine and EU countries remain insufficiently researched, which highlights the relevance of further research.

Unsolved parts of the problem. Despite the existing body of research, issues relating to the comprehensive monitoring of the European Innovation Scoreboard's sub-indices covering the post-war period and forecasting the implications for Ukraine's innovation positioning remain overlooked by researchers. There is a lack of analysis of how shifts in the structure of R&D funding, patent activity and SME cooperation correlate with the overall level of the composite index, and which of these factors are most critical for closing the gap with EU countries and their impact on the economic security of the state.

The purpose of the article is to conduct a comprehensive comparative assessment of the level of innovation development in Ukraine and selected EU countries based on the composite

innovation index and its components for the period 2018–2025, with the aim of identifying the key determinants of the gap and justifying innovation policy priorities.

Research methodology. The study is based on data from the European Commission's European Innovation Scoreboard for the years 2018–2025. Ukraine and a group of European countries (Bulgaria, the Czech Republic, Hungary, Moldova, Poland, Romania, and Slovakia) were selected for this study due to their geographical proximity, shared experiences of economic transition, and varying stages of engagement in European integration processes. This selection provides a coherent basis for comparative analysis of innovation potential, highlighting structural differences and development opportunities relevant to Ukraine's innovation system.

The following methods were used in the study: statistical analysis of time series – to identify trends in indicators over time; comparative analysis – to compare the positions of Ukraine and EU countries; structural analysis – to assess the contribution of individual sub-indices to the overall level of innovation; graphical visualisation – to present the identified patterns clearly; a comprehensive approach – to develop proposals for enhancing Ukraine's innovation potential, taking into account the experience of European countries..

Research findings. Building on the methodology described above, the study evaluates the overall innovation performance of the selected countries using the Summary Innovation Index (SII) – a composite indicator capturing the aggregate potential of each country's innovation system (Fig. 1).

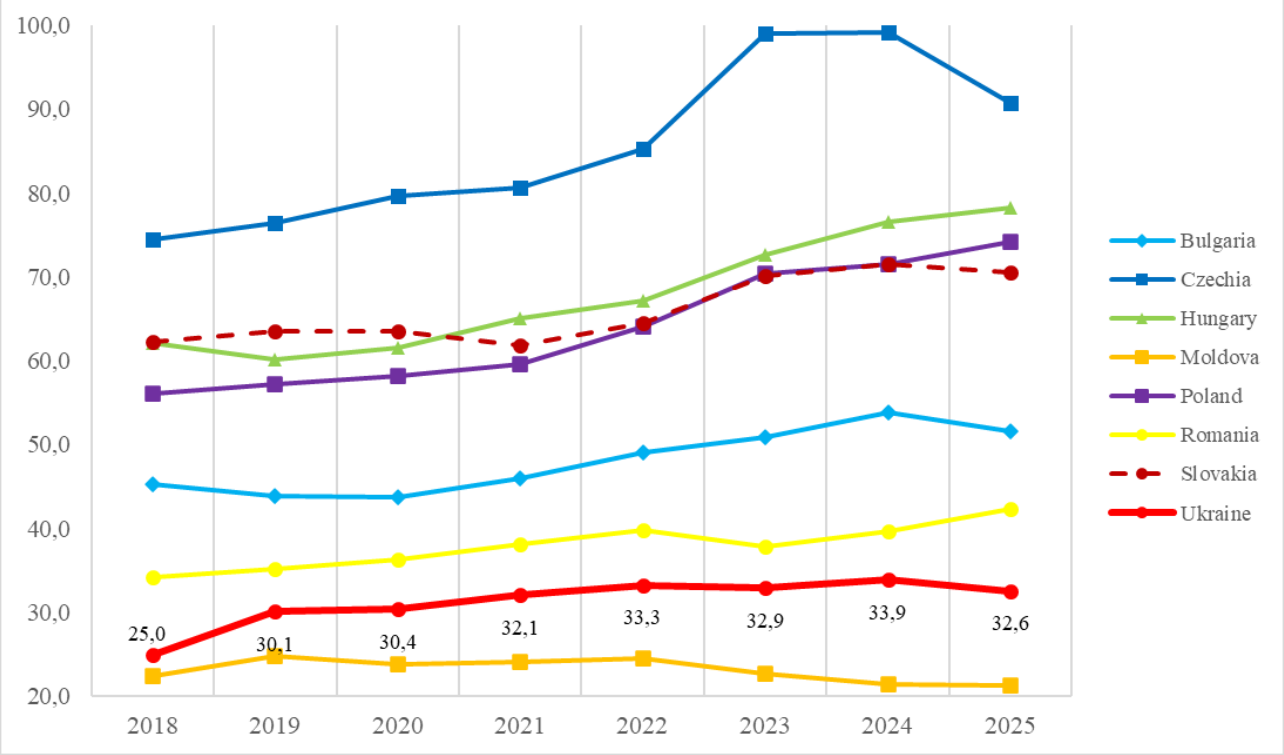

Fig. 1. Summary Innovation Index: Ukraine and EU Countries, 2018–2025

Source: developed by the authors based on [14]

The group of countries under study is internally heterogeneous: the Czech Republic, Poland and Slovakia form the upper cluster, with SII values ranging from 50 to 70 units, and demonstrate a steady upward trajectory throughout the entire period under review, indicating a systematic consolidation of their innovation potential. Bulgaria, Romania and Moldova tend towards the lower cluster, yet they too maintain the moderately positive dynamics characteristic of countries

that are gradually adapting their innovation systems to the requirements of European integration. Against this backdrop Ukraine demonstrates slow growth in the SII – from 25.0 in 2018 to 33.9 in 2024 – with a characteristic dip in 2022–2023, when the value stagnated and briefly fell to 32.9 under the influence of the full-scale invasion. The fundamental difference in Ukraine's trajectory lies not only in its absolute lag, but in the fact that the rate of SII growth is lower than the group average, meaning the gap does not narrow even in favourable years – which points to the structural, rather than cyclical, nature of the problem. The obtained results indicate that the low level of the composite innovation index in Ukraine limits its ability to ensure economic security, as it reduces the economy's adaptability to external shocks and slows down processes of structural modernization.

The reproduction of the intellectual resources of the innovation system is largely determined by the number of new PhDs – researchers of the highest calibre capable of generating breakthrough knowledge (Fig. 2).

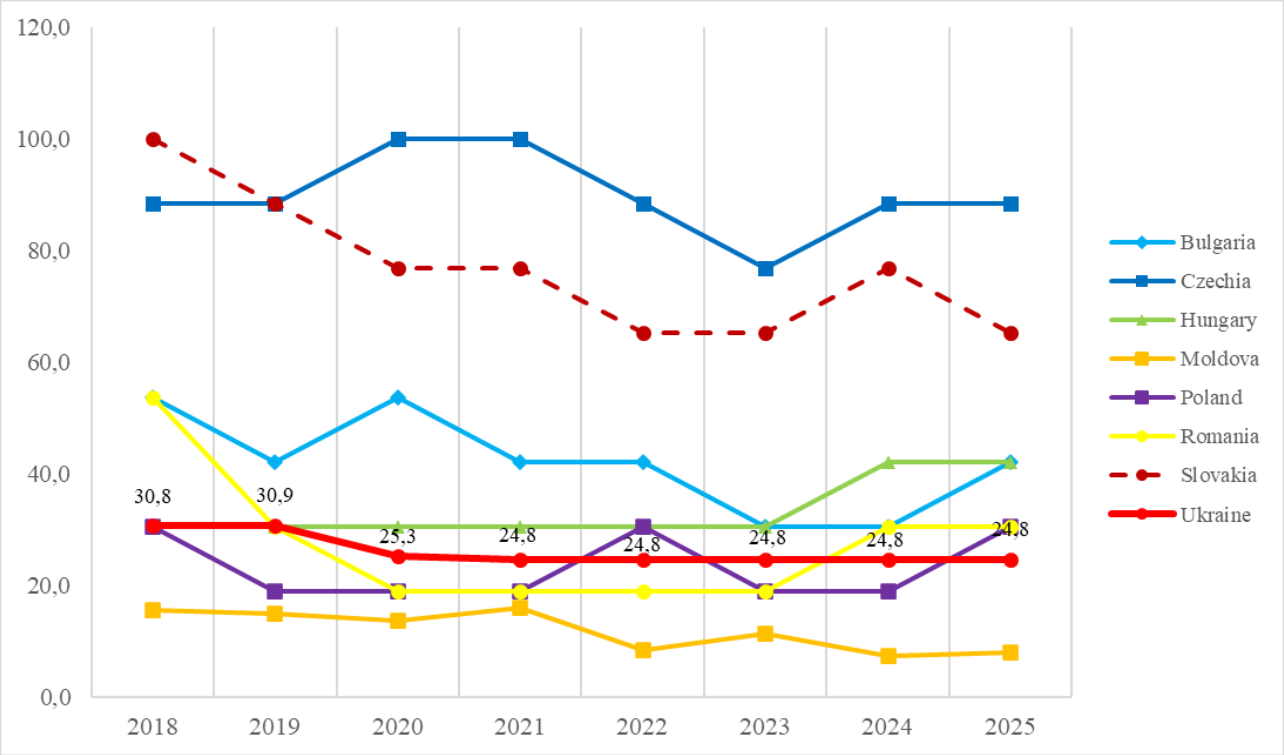

Fig. 2. New PhD graduates: Ukraine and EU Countries, 2018–2025

Source: developed by the authors based on [14]

Among the EU countries analysed, the Czech Republic, Poland and Slovakia show consistently high figures for the training of new PhDs, with a marked upward trend, while Bulgaria and Romania maintain average figures with minor fluctuations. Moldova, despite not being an EU member, is characterised by lower figures, like Ukraine. In 2018–2019, Ukraine recorded figures of 30.8–30.9, which corresponded to the average level of the group and reflected the sustained potential of its extensive university network. However, from 2020, there was a sharp drop to 25.3, followed by a complete 'freeze' at 24.8 until 2025. None of the countries analysed shows such long-term stagnation in this indicator – this is a specific is a distinctive feature of Ukraine, reflecting not a statistical anomaly but a combination of: structural changes in the doctoral system, namely the replacement of academic councils with specialized councils that

constrained formal PhD defence procedures; the temporary reduction of defences during the pandemic; the subsequent loss of academic staff due to the war and forced migration. Such prolonged stagnation carries the risk of depleting the "scientific pipeline" in the medium term. Such dynamics generate long-term risks to economic security, as the decline in scientific potential constrains the country's ability to generate innovation and maintain technological independence.

The state's institutional capacity to support fundamental and applied research is reflected in the level of public expenditure on R&D (Fig. 3).

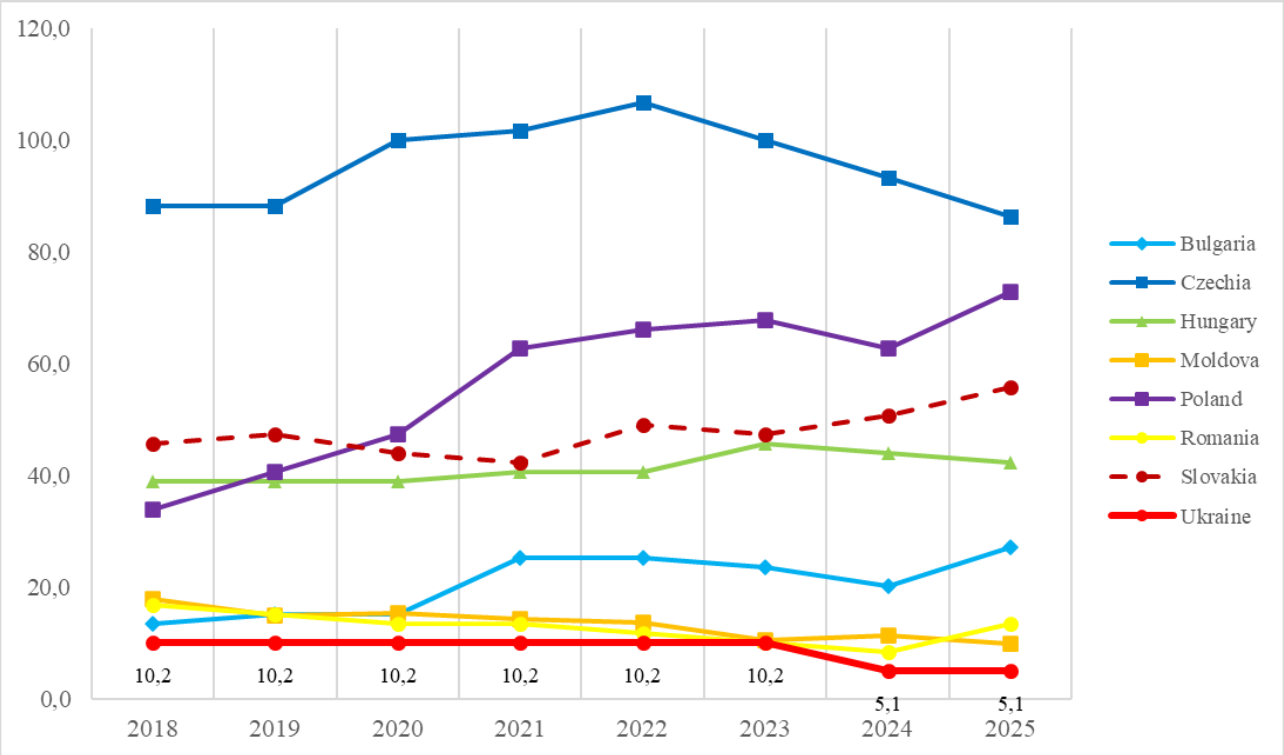

Fig. 3. R&D expenditure in the public sector: Ukraine and EU Countries, 2018–2025
Source: developed by the authors based on [14]

The disparities in public funding for R&D among the countries analysed reflect deeper differences in budgetary priorities and institutional maturity. The Czech Republic and Slovakia significantly outperform the other members of the group, showing a trend towards stable growth, which directly correlates with their higher positions on the composite SII. Poland and Hungary occupy the middle ground, while Bulgaria, Romania and Moldova remain lower down, but do not fall to critical levels. The fundamental difference in Ukraine lies in the combination of an already low baseline (10.2 between 2018 and 2023, corresponding to 0.4–0.5% of GDP, contrary to the constitutional norm of 1.7%) with a sharp drop to zero in 2024 and only a partial recovery to 5.1 in 2025. No other country in the sample has experienced a comparable collapse in this indicator– even the least well-funded members of the group have maintained stable funding. Such dynamics provide quantitative confirmation that the state of war has led to a systemic degradation of the public research infrastructure, rather than merely temporary budgetary constraints. The reduction of public funding for science constitutes a critical factor in weakening economic security, as it leads to the degradation of the scientific and technological base and increases dependence on external sources of knowledge and technology.

One of the key indicators of the maturity of an innovation system is the level of business sector expenditure on research and development, which reflects the economy's real demand for knowledge and technology (Fig. 4).

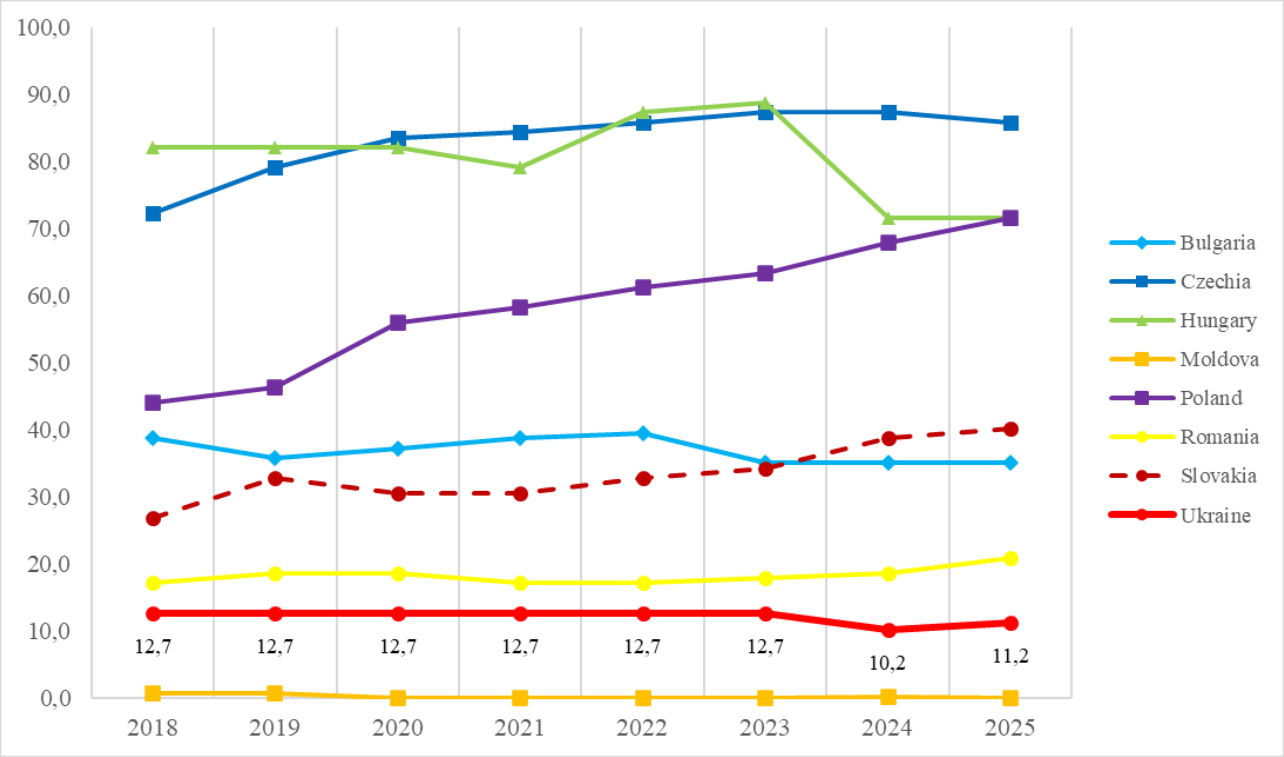

Fig. 4. R&D expenditure in the business sector: Ukraine and EU Countries, 2018–2025

Source: developed by the authors based on [14]

Business sector expenditure on R&D is the sub-index where differentiation within the group is most pronounced. The Czech Republic stands out for its consistently high and rising figures, thanks to the presence of major technology manufacturers and deep integration into global value chains. Poland and Hungary show moderate growth linked to the attraction of foreign direct investment in knowledge-intensive industries, while Bulgaria and Romania maintain positive or at least stable trends. Ukraine, however, shows complete stability: the value of 12.7 did not change once during 2018–2023 – which is a unique case in the sample – after which only a slight decline to 10.2 was recorded in 2024 and a partial recovery to 11.2 in 2025. The very fact that the pre-crisis indicator remained unchanged is diagnostically significant: it indicates that the structural 'freeze' in business science preceded the full-scale invasion and is an independent problem, rather than a consequence of an external shock. The domestic economy, dominated by enterprises with low added value and minimal incentives for technological modernisation, does not generate sufficient domestic demand for its own R&D – and this will not change without targeted structural reform**.** The reduction in public funding for science is a critical factor undermining economic security, as it leads to the degradation of the scientific and technological base and increases dependence on external sources of knowledge and technology.

The degree of development of innovation networks and ecosystems is reflected in the level of cooperation between innovation-active SMEs and universities, research organisations and other enterprises (Fig. 5).

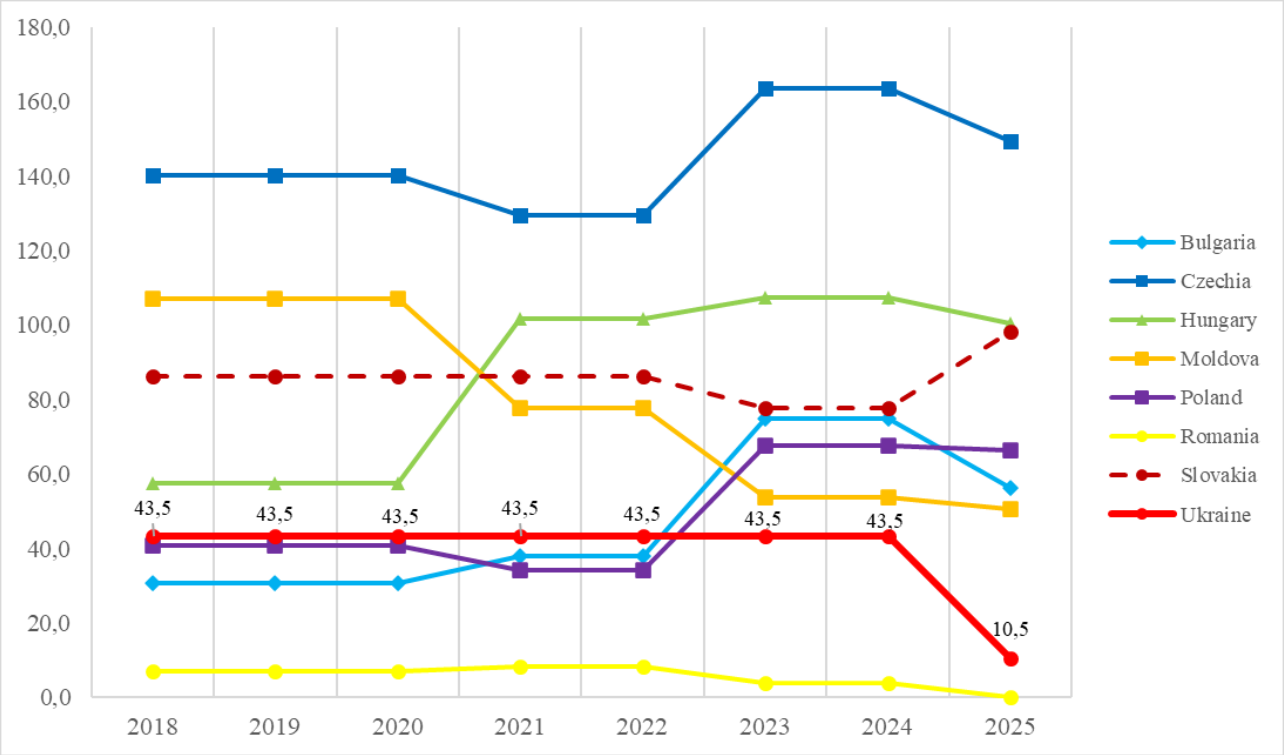

Fig. 5. Innovative SMEs collaborating with others: Ukraine and EU Countries, 2018–2025
Source: developed by the authors based on [14]

Cooperation among innovative SMEs is a sub-index in which the role of the institutional environment is particularly evident. The Czech Republic and Poland consistently maintain high levels thanks to well-developed cluster infrastructure and mechanisms for supporting open innovation. Bulgaria and Romania, despite lower scores, maintain some positive dynamics, supported by EU structural funds programs. Even the least developed members of the group, therefore, have the institutional foundations to sustain partnerships. For Ukraine, the innovation profile differs significantly: a relatively stable score of 43.5 during 2018–2023 – mid-range within the group – indicates the presence of cooperative potential, primarily manifested through IT clusters and select project consortia.

However, a drop to zero in 2024 and a minimal recovery to 10.5 in 2025 revealed the fundamental fragility of these ties: they existed primarily as informal project-based cooperation rather than as established institutional partnerships and proved to be extremely vulnerable to external shocks. A decline in patent activity implies a loss of control over intellectual resources, which directly undermines the technological component of a state's economic security.

The restoration of these networks in the post-war period is not merely a priority – without them, it is impossible to close the innovation cycle, as it is precisely through cooperation that scientific results take on a market form.

Patent activity on an international scale – in particular, the filing of applications under the PCT procedure – is one of the most objective indicators of technological potential and the commercial orientation of innovations (Fig. 6).

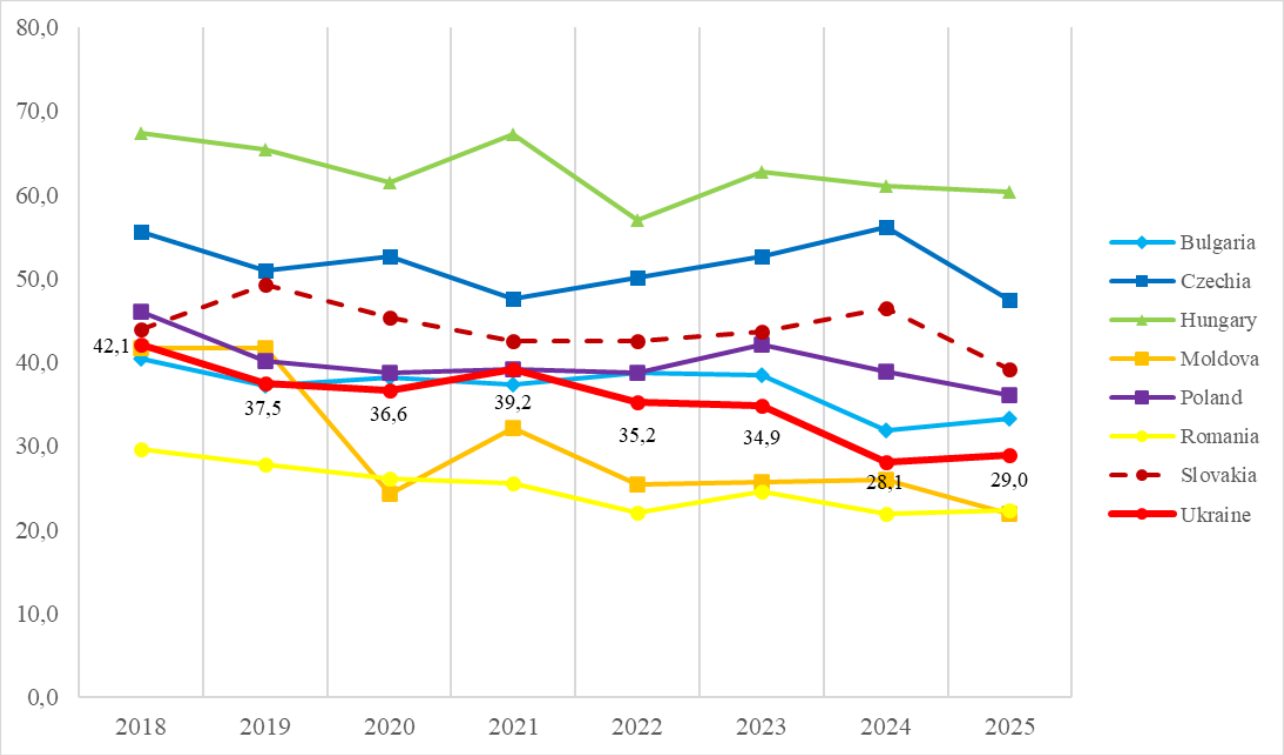

Fig. 6. PCT patent applications: Ukraine and EU Countries, 2018–2025
Source: developed by the authors based on [14]

PCT patenting is the sub-index showing the greatest variation among the countries in the sample. The Czech Republic and Poland demonstrate consistently high and rising figures, reflecting the strong focus of their innovation systems on international intellectual property markets. Bulgaria, Romania and Moldova remain at the lower end of the scale but at least maintain stable positions without any significant reduction. It is logical that a positive correlation can be observed between the level of patent activity and the overall SII value – the ability to generate internationally protected inventions is both a result and a catalyst of a developed innovation system. Ukraine is the only country in the sample with a consistently downward trend: a decline from 42.1 in 2018 to 28.1 in 2024 – that is by a third over seven years – and only a minimal recovery to 29.0 in 2025. It is crucial to note that this decline began long before 2022 and is an independent long-term trend, not a consequence of the full-scale invasion. The system's inability to generate and protect intellectual property at the international level effectively cuts Ukraine off from participation in global technological value chains – it is through these that the transfer of knowledge and capital takes place in the modern innovation economy. The end result of the innovation process is the ability of enterprises to generate revenue from the sale of new products and services (Fig. 7).

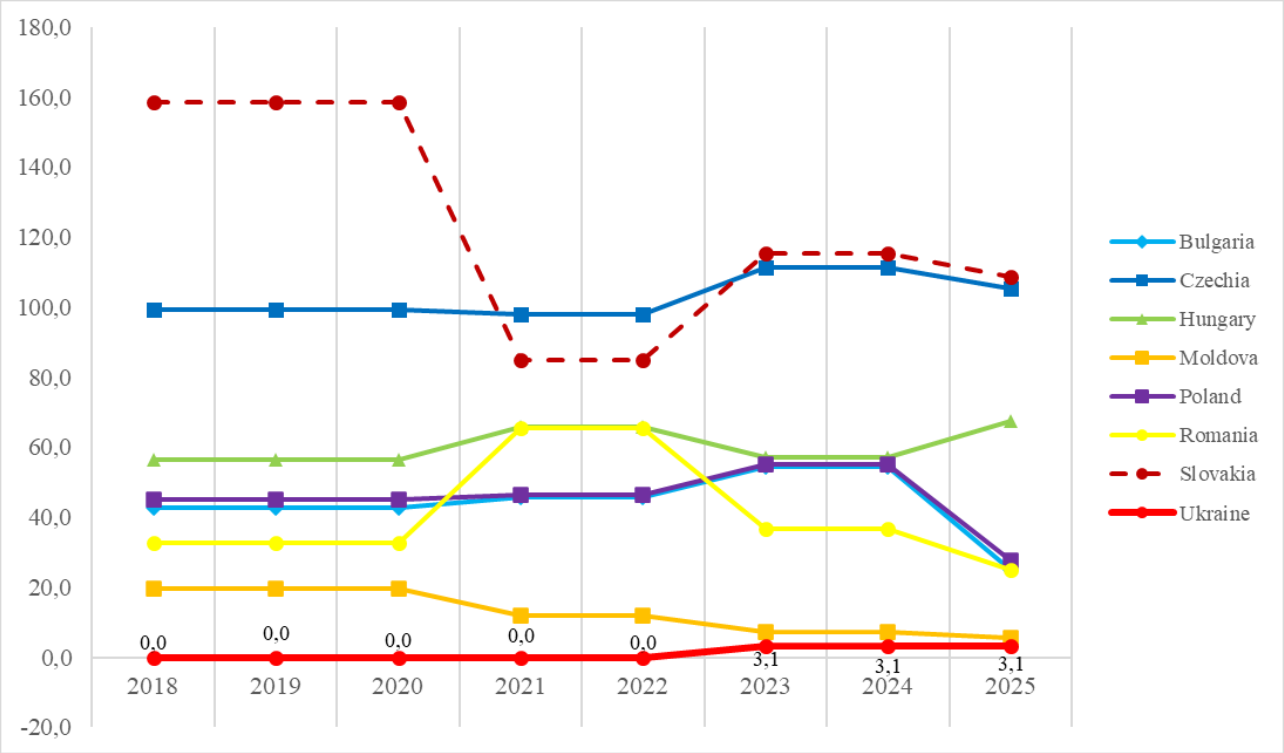

Fig. 7. Sales of new-to-market and new-to-firm innovations: Ukraine and EU Countries, 2018–2025
Source: developed by the authors based on [14]

Sales of innovations is the sub-index where the link between the SII level and the commercial outcomes of innovation activity is most direct. The Czech Republic and Poland show relatively higher values, which is consistent with their leading positions within the group. Bulgaria and Romania remain at lower levels, yet record non-zero and, to some extent, rising results – that is, the innovation cycle in these countries, albeit weakly, is closed. For Ukraine, however, five consecutive zero values between 2018 and 2022 do not represent a statistical anomaly, but a diagnosis: the innovation cycle in the domestic economy is not systematically closed. The appearance of a minimal value of 3.1 from 2023 onwards is more likely a methodological inclusion in the EIS database than evidence of a qualitative breakthrough. Notably, this 'commercial void' existed alongside non-zero R&D expenditure – thus the problem lies not in the absence of research activity itself, but in the absence of infrastructure and incentives to transform its results into products in demand on the market. This is, perhaps, the most acute systemic flaw in Ukraine's innovation system. The inability to complete the innovation cycle implies that innovations are not transformed into a factor of economic security, which manifests in a loss of economic efficiency and reduced economic resilience.

The structure of a country's exports is an integral reflection of the technological level of its manufacturing base. The share of medium- and high-tech products in total exports is shown in Fig. 8.

The technological structure of exports reveals yet another axis of differentiation within the group. The Czech Republic and Hungary occupy leading positions thanks to their deep integration into the EU's automotive and electronics production networks, while Poland and Slovakia are showing steady growth, and Bulgaria and Romania are remaining at moderate levels. Ukraine's performance on this sub-index is the most non-linear in the sample and, at the same time, the most diagnostically informative. The rapid rise from 9.1 in 2018 to 77.2 in 2021 reflected the restructuring of trade flows amid European integration and the growing role of

engineering and technology services in exports. The collapse to 52.3 in 2022 highlighted the scale of the destruction of industrial capacity caused by the invasion, while the recovery to 67.5–72.6 in 2024–2025 indicates a certain resilience of the technology sector. However, this seemingly optimistic result must be interpreted with caution: it reflects a return to pre-war levels rather than a qualitative leap, and is achieved against a backdrop of simultaneous deterioration in most other sub-indices – notably patent activity, SME cooperation and the commercialisation of innovations – which indicates the persistence of structural imbalances in the country's technological development.

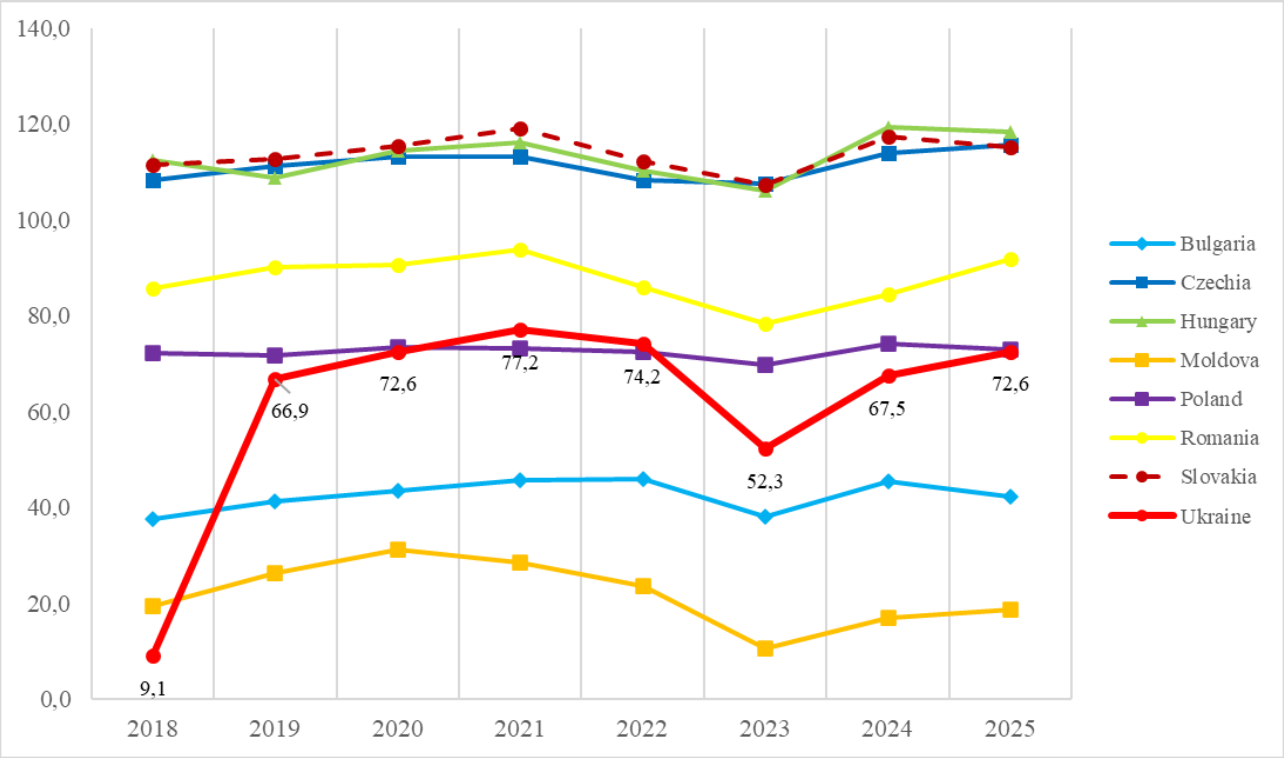

Fig. 8. Exports of medium and high-tech products: Ukraine and EU Countries, 2018–2025
Source: developed by the authors based on [14]

Overall, Ukraine's innovation system exhibits a characteristic asymmetry: relatively preserved human capital and a certain degree of activity in technology transfer are combined with chronically low levels of research funding, a lack of effective incentives for business R&D and, most importantly, a systemic inability to close the innovation cycle at the commercialisation stage. The state of war, which began in 2022, has not only deepened existing gaps but also destroyed those sub-indices – non-R&D innovation and SME cooperation – in which Ukraine had previously demonstrated competitive results. This means that the post-war restoration of innovative potential will face a fundamentally more complex task than a simple return to pre-war levels: it involves simultaneously addressing chronic structural flaws and restoring lost potential in those areas where Ukraine previously held comparative advantages.

Thus, innovative potential serves not only as an indicator of development but also as a key determinant of economic security, defining the level of resilience, autonomy, and adaptability of the national economy under conditions of uncertainty and war.

The study revealed structural imbalances within Ukraine's innovation system. Based on an analysis of the experience of European partner countries, the following recommendations can be made to enhance Ukraine's innovation potential:

- prioritising the creation of a technology transfer infrastructure modelled on the Czech and Polish models: establishing a network of transfer centres at universities, innovation voucher programmes and mechanisms for co-funding the pilot implementation of research results;
- considering the experience of the Czech Republic and Slovakia, where public expenditure on research correlates with the overall SII, we consider it necessary to gradually restore budgetary funding for science to the normative level while simultaneously introducing tax incentives for corporate R&D – R&D tax credits;
- it is necessary to institutionally embed a cluster model of interaction between universities, research organisations and business, following the example of the Czech and Polish cluster infrastructure, with the involvement of resources from EU recovery programmes;
- the introduction of targeted programmes to support patenting for researchers and SMEs, including compensation for the costs of filing applications and legal support, which is standard practice in the leading countries of the group and directly ensures integration into global technology value chains.

Conclusions. A comparative analysis shows that Ukraine's innovation system developed between 2018 and 2025 under fundamentally different conditions to those of the EU countries under review, and that this difference has deep structural roots which cannot be attributed solely to the consequences of martial law. Ukraine's aggregate SII rose from 25.0 to 33.9, but the pace of this growth is insufficient to narrow the gap with the countries in the top cluster – the Czech Republic, Poland and Slovakia – whose figures grew at a faster rate over the same period. It is telling that even Bulgaria and Romania, which are in the lower range of the group under analysis, demonstrate a more stable trajectory that is less vulnerable to external shocks, which is explained by the institutional support of EU membership and the availability of Structural Funds mechanisms. The obtained results allow innovative potential to be interpreted as a critical element of economic security, as it determines the economy's capacity for recovery, resilience to crisis shocks, and the preservation of competitive positions in the global environment.

A detailed analysis of the sub-indices reveals a fundamentally important two-tiered structure of problems. The chronic weakness of indicators such as corporate R&D expenditure, state support for business research and international patent activity predated 2022 and is an independent manifestation of the economy's structural distortion – excessive concentration in low-tech and raw materials sectors with correspondingly low demand for innovation. Martial law has compounded these chronic shortcomings with acute disruptions: the elimination of state funding for R&D in 2024, the collapse of SME cooperation, and a sharp reduction in spending on non-R&D innovation. The most significant indicator remains the figure for sales of innovations; the fact that this stood at zero throughout the five pre-war years highlights a systemic inability to transform scientific findings into marketable products, regardless of external circumstances. The identified structural imbalances create systemic threats to Ukraine's economic security, particularly through constraints on innovation autonomy, the loss of technological potential, and reduced effectiveness of economic policy.

Simultaneously, the data reveal ongoing opportunities for recovery and development within the innovation system. The relative stability of PhD training in the pre-pandemic period and the

rapid recovery of technology exports after 2022 suggest that Ukraine retains human capital and specific production capabilities capable of forming the basis for a qualitative innovation leap, provided that an appropriate institutional and financial environment is established. Thus, ensuring Ukraine's economic security under conditions of war and post-war recovery directly depends on the state's ability to develop an effective innovation system integrated into the European research and technological area.

A promising direction for further research is an in-depth analysis of the interdependencies between EIS sub-indices and the identification of those whose improvement has the greatest multiplier effect on the aggregate SII. Attention should be paid to assessing the impact of post-war reconstruction programmes and Ukraine's European integration commitments on the dynamics of innovation indicators in the medium term. It is also important to conduct a comparative analysis of the effectiveness of specific innovation policy instruments in EU member states to identify those best suited for adaptation to Ukrainian conditions.

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ТРАНСФОРМАЦІЯ ІННОВАЦІЙНОГО ПОТЕНЦІАЛУ УКРАЇНИ В СИСТЕМІ ЕКОНОМІЧНОЇ БЕЗПЕКИ ТА ЄВРОПЕЙСЬКОЇ ІНТЕГРАЦІЇ

У статті представлено комплексний порівняльний аналіз розвитку інновацій в Україні та окремих країнах Європейського Союзу на основі методології European Innovation Scoreboard за 2018–2025 роки. Обґрунтовано, що інноваційний розвиток виступає не лише чинником конкурентоспроможності, але й системоутворюючим елементом економічної безпеки держави, оскільки визначає здатність економіки протидіяти зовнішнім і внутрішнім загрозам, забезпечувати технологічний суверенітет та стійкість до кризових шоків. Встановлено, що Україна суттєво відстає від країн ЄС за більшістю інноваційних показників, що зумовлено як хронічними структурними дисбалансами (низький рівень фінансування науково-дослідних і дослідно-конструкторських робіт, слабка інноваційна активність бізнесу, обмежена комерціалізація результатів досліджень), так і наслідками повномасштабної війни. Таке відставання формує критичні ризики для економічної безпеки, зокрема через залежність від імпортних технологій, обмежену здатність до відновлення та низький рівень інноваційної автономії. У дослідженні проаналізовано динаміку зведеного індексу інновацій та його складових, зокрема людського капіталу, державного та приватного фінансування НДДКР, патентної активності, кооперації малих і середніх підприємств, інноваційних витрат і експортного потенціалу. Виявлено, що інноваційна система України характеризується структурною асиметрією: відносно збережений людський потенціал поєднується з критично низькою спроможністю до комерціалізації інновацій та формування замкненого інноваційного циклу. Це знижує ефективність трансформації знань у фактори економічної безпеки та посилює вразливість економіки до структурних і воєнних шоків. Отже, воєнний стан не лише загострив наявні дисбаланси, а й призвів до руйнування окремих сегментів інноваційної екосистеми, які раніше забезпечували відносні конкурентні переваги.

Показано, що відставання України має переважно структурний характер і не скорочується навіть у періоди економічної стабілізації. Водночас ідентифіковано потенційні напрями зростання, пов'язані зі збереженим людським капіталом і частковою стійкістю експорту технологічної продукції. На цій основі визначено ключові пріоритети державної інноваційної політики, спрямовані на збільшення фінансування НДДКР, стимулювання інноваційної активності бізнесу, розвиток інституційної інфраструктури та інтеграцію до Європейського дослідницького простору.

Ключові слова: *інноваційний розвиток, інноваційний потенціал, НДДКР, економічна безпека, конкурентоспроможність, євроінтеграція, інноваційна політика, міжнародне інвестування, невизначеність.*