

**NEW INTEGRATION OPPORTUNITIES OFFERED BY EUROPEAN UNION SHARED  
VALUES FOR YOUTH: EXPLORING HIGHER EDUCATION POLICIES AND  
SUSTAINABLE DEVELOPMENT IN THE EASTERN PARTNERSHIP COUNTRIES**

**NOI OPORTUNITĂȚI DE INTEGRARE OFERITE DE VALORILE COMUNE ALE  
UNIUNII EUROPENE PENTRU TINERI: EXPLORAREA POLITICILOR DE  
ÎNVĂȚĂMÂNT SUPERIOR ȘI DEZVOLTAREA DURABILĂ ÎN ȚĂRILE DIN  
PARTENERIATUL ESTIC**

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**ABSTRACT.** *In today's global context, especially in higher education, sustainability and innovation are closely intertwined. This study deepens the key role of higher education institutions not only as academic centers but also as dynamic catalysts for sustainable economic growth, especially in the Eastern Partnership countries. Focusing on Moldova's active participation in research and innovation initiatives of the European Union, we evaluate its position in the Global Innovation Index compared to its counterparts from the Eastern Partnership. We emphasize the importance of the triangular interaction between science, business and academia in promoting innovation. The study highlights the European Union's concerted efforts to stimulate research-led economic growth in the region. By analyzing key performance indicators and innovative outcomes, this study offers a comprehensive understanding of the challenges and opportunities faced by the Eastern Partnership countries in their pursuit of sustainable development in an era of global interdependence.*

**Keywords:** *European Union, shared values, Higher Education, Eastern Partnership Countries, internationalization, innovation, sustainable development.*

**REZUMAT.** *În contextul global actual, în special în învățământul superior, sustenabilitatea și inovarea sunt strâns legate între ele. Acest studiu aprofundează rolul-cheie al instituțiilor de învățământ superior nu numai ca centre academice, ci și ca catalizatori dinamici pentru o creștere economică durabilă, în special în țările din Parteneriatul Estic. Concentrându-ne pe participarea activă a Republicii Moldova la inițiativele de cercetare și inovare ale Uniunii Europene, evaluăm poziția acesteia în Indicele Global al Inovării în comparație cu omologii săi din Parteneriatul Estic. Subliniem importanța interacțiunii triunghiulare dintre știință, mediul de afaceri și mediul academic în promovarea inovării. Studiul evidențiază eforturile concertate ale Uniunii Europene de a stimula creșterea economică bazată pe cercetare în regiune. Analizând principalii indicatori de performanță și rezultatele inovatoare, acest studiu oferă o înțelegere cuprinzătoare a provocărilor*

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*și oportunităților cu care se confruntă țările din Parteneriatul estic în căutarea unei dezvoltări durabile într-o eră a interdependenței globale.*

**Cuvinte-cheie:** *Uniunea Europeană, valori comune, învățământ superior, țări din Parteneriatul estic, internaționalizare, inovare, dezvoltare durabilă.*

**Introduction.** In an era where innovation holds the key to sustainable development, understanding its interplay, especially within the realm of higher education, becomes paramount. Higher education institutions have long been recognized as crucibles for pioneering research and the genesis of groundbreaking ideas, fueling economic growth that is both robust and sustainable, also provide employment for their graduates, thanks to interaction with the business environment and expanding the scope of their activities. The European Union, cognizant of this potential, has channeled significant resources and efforts into fostering a research-driven environment through different initiatives and programs.

This research delves into Moldova's engagement with these EU programs, evaluates its performance on the Global Innovation Index in comparison with its Eastern Partnership peers, and underscores the vital role of integrating science, business, and academia. By traversing this intricate nexus of innovation and sustainable development, we aim to shed light on the trajectory of Moldova in the European research and innovation domain and the broader implications for the Eastern Partnership region.

In today's rapidly changing global landscape, the link between innovation and sustainable development has become a cornerstone of economic progress and sustainability. As the European Union emphasizes shared values and collective growth, the interaction of these concepts in higher education is of paramount importance. Higher education institutions are no longer just centers of academic activity; they are dynamic hubs that promote innovation, research and development and catalyze sustainable economic transformation. The Eastern Partnership countries, a coalition driven by common aspirations and goals, provide an intriguing example in this context. As these countries advance along the path of inclusive development, the impact of international partnerships, especially with the EU, is becoming clear.

By analyzing various indicators, levels of participation and innovative outcomes, the article attempts to uncover the complex dynamics of international cooperation and its impact on sustainable development in the region. Through this study, we aim to provide insight into the evolving role of higher education in shaping the future of the Eastern Partnership countries in an era of global interdependence.

### **Research methodology**

The methodology of this study includes the collection, analysis and interpretation of data to ensure reliable and valid results. Scientific articles, policy papers, reports on European Union initiatives and publications from international organizations such as the World Intellectual Property Organization were reviewed.

Extensive data was obtained from the Horizon Dashboard, the WIPO Global Innovation Index and UNECE reports. This data provided key indicators of participation rates, funding received, innovation outcomes and other relevant indicators.

Combining quantitative and qualitative methods, this study provides a holistic understanding of the complex relationship between higher education, sustainable development and innovation in the Eastern Partnership region.

## **Results obtained and discussions**

**Effective European Union Higher Education Policies.** Education, and in particular higher education in the European Union has always been one of the priority areas for development. Therefore, one of the main goals of creating common policies in this area was to provide quality education for European Union citizens, strengthen intercultural exchange and cooperation, and sustainable economic development based on the effective implementation of these initiatives.

A good example of such European Union higher education policies is the Erasmus+ programme. This program started as Erasmus in 1987 and has since grown into one of the most successful programs in the European Union. [1] It provides training and internship opportunities for students and teachers in the European Union countries as well as in the Eastern Partnership countries.

A European Union 2020 report found that Erasmus+ participants are 23% more likely to find a job within a year of graduation compared to non-participants. For example, Spain has long been one of the most popular countries for Erasmus+ students. It accepted over 77,000 students in 2021, making it the leader in incoming students within the program. [2]

Erasmus+ budget for the period 2021-2027 is estimated at 26.2 billion European Union, almost double the funding of the previous program (2014-2020). In addition, the program is complemented by approximately €2.2 billion from external cooperation instruments. [3]

At the same time, 70% of the budget will go to support mobility opportunities for all in the perspective of lifelong learning. Erasmus+ mobility has a positive impact on educational, social, personal and professional development as it enhances knowledge, skills and attitudes, improves employability, helps build confidence and independence, stimulates curiosity and innovation, promotes understanding of others, and creates a sense of European Union belonging. [1]

30% of the budget will be invested in cooperation projects and policy development activities, where organizations gain experience in international cooperation, strengthen their capacity, develop innovative approaches, share best practices and build relationships. Through these actions, Erasmus+ plays an important role in building resilience and supporting recovery and innovation in the fields of education, training, youth and sport. [1]

But there are also downsides to this initiative: it can be complex to administer, participation can be costly for some students, and not all institutions can provide equal opportunities for participation.

Another effective European Union higher education policy is the European Union Higher Education Area, which promotes the harmonization of higher education structures in European Union. Officially, the existence of this process began in 1999 with the signing of the Bologna Declaration. On June 19, 1999, 29 countries signed a declaration in Bologna.

Today, 48 countries are implementing higher education reforms based on shared core values such as academic freedom, institutional autonomy, and student and staff participation in higher education governance. Through this process, known as the Bologna process, countries, institutions and stakeholders are constantly adapting their higher education systems, making them more compatible and strengthening quality assurance mechanisms.

The European Union Higher Education Area reports highlight that annually more than 40% of students in European Union participate in international exchanges or internships, which indicates the success of this initiative. Poland and Hungary, for example, are actively involved in bilateral and multilateral research projects through their participation in the European Union Higher Education Area.

At the same time, it is necessary to note the disadvantages of this process. With the introduction of uniform standards for many countries, there is a possibility of losing the uniqueness of national educational systems. In addition, not all countries are at the same level in terms of education standards, and this causes delays and delays in the implementation of common standards.

#### **Effective European Union Higher Education Policies and Initiatives: The Case of Moldova.**

The European Union has been instrumental in reshaping the higher education landscape in Moldova, primarily through the Bologna Process, which aims at creating a European Union Higher Education Area. Moldova has participated in this process since 2005, leading to a significant restructuring of its Higher Education system. The process includes the implementation of a three-cycle system, the adoption of a system of credits, and the promotion of mobility and quality assurance.

Moreover, the European Union has funded several Erasmus+ capacity-building projects in Moldova, such as: TEACHME, eDrone, SMART CAFFES, COMPASS, MHELM, CONNECT, QFORTE, MEDIA, etc. providing opportunities for students and staff mobility, and enhancing the capacity of higher education institutions. [4]

Every year, more than 2,000 Moldovan students and academic staff participate in academic exchanges and partnership programs with European Union educational institutions. [5] Many Moldovan universities have begun active cooperation with European Union partners, which has led to the renewal of curricula, the introduction of new teaching methods and the improvement of the quality of education.

Within the framework of the Eastern Partnership, Moldova participates in a number of initiatives and projects aimed at improving the country's education system and integration with the European Union educational space. Within the framework of the Tempus program, Moldova participates in projects to modernize curricula, improve teaching methods and improve the qualifications of teachers. Thanks to participation in this project, many Moldovan universities have been able to modernize their curricula, making them more relevant and in line with modern requirements.

Participation in the Twinning initiative, which implies cooperation between the institutions of the European Union Member States and partner countries in order to transfer knowledge and best practices, brought Moldova the introduction of European Union standards for assessing the quality of higher education. The education quality assessment system has become more transparent and structured, and the accepted standards and methods continue to be used and improved. Access to the eTwinning platform for schools in the European Union and Eastern Partnership countries has allowed teachers and students to connect, share teaching methods and innovative teaching methods. Many Moldovan school projects started under this program continue to exist.

In the process of Moldova's participation in Eastern Partnership projects and other European Union education initiatives, it is worth considering a number of obstacles that arise in the process of implementing many projects. Moldova, as a country with limited financial resources, faces problems in securing the necessary co-financing for the implementation of projects, even if part of the funds is provided by the European Union.

There are also bureaucratic barriers, both in Moldova and in the European Union, there is a certain level of bureaucracy that often slows down the processes of decision-making, approval and implementation of projects, which affects the effectiveness and their economic impact.

Moldovan institutions and specialists do not always have sufficient experience to successfully participate in some projects, especially those requiring high specialization.

Although many of the Moldovan professionals involved in the projects mostly speak not only Romanian but also English, language differences still exist and can create barriers to smooth communication and collaboration.

In addition, internal political processes and sometimes unstable political situations can influence strategic planning and participation in long-term projects.

The introduction of new methods and standards may face resistance from some teachers who adhere to traditional approaches. And this causes integration difficulties: since the Moldovan education system has its own characteristics, the integration of European standards often requires additional efforts and time.

An equally important aspect that directly affects the effectiveness of the implementation of educational and scientific projects is external influences: Moldova is at the crossroads of Eastern and Western interests, and external conflicts, such as the Russian invasion of Ukraine, from which Moldova suffered greatly, can influence the shift in focus European Union projects and the success of their implementation.

Although participation in Eastern Partnership projects and other European Union initiatives provides Moldova with significant opportunities to improve its education system, existing and emerging obstacles must be overcome in order to maximize the effectiveness of cooperation.

**Innovation and Sustainable Development: A Conceptual Interface.** The interface between innovation and sustainable development in the context of higher education is a crucial aspect of European Union shared values. HE institutions serve as a hub for innovation, promoting research and development activities that can drive sustainable economic growth. The European Union supports these activities through various funding mechanisms, such as Horizon 2020 and its successor, Horizon Europe.

On 27 October 2021, the Republic of Moldova signed the Agreement on the participation in Horizon Europe, the Framework Programme for Research and Innovation 2021-2027. The Republic of Moldova enjoys the status of an Associated Country under Horizon Europe. This status gives Moldovan research entities the possibility to participate in Horizon Europe on equal footing with entities from European Union Member States [6]:

**Table 1**

**Republic of Moldova's participation in Horizon 2020/Horizon Europe**

Programme	Horizon 2020	% of total	Horizon Europe	% of total
Funding received by the project's participants, €mln	7,42	0,01	3,49	0,01
Number of grant agreements signed, units	73	0,20	31	0,36
Number of organizations involved, units	91	0,05	41	0,08
Number of unique organizations involved, units	37	0,08	21	0,12
Ratio of the retained applications to the total number of eligible, %	14,55	-	25,99	-
Proposals that have not failed at the eligibility or admissibility step, units	457	0,16	154	0,28
Number of organizations applying for European Union R&I programmes grants, units	550	0,05	177	0,06

Source: developed by the authors based on Horizon dashboard

Examining the country profile of Moldova in the Horizon dashboard, we notice that the previous period of the program implementation differs from the current one in some respects, given that the current period is in full swing and will continue to be implemented.

According to such indicators as financing received by project participants, 1/2 of the amount of the previous program is noted. At the same time, for eligible proposals and for the number of organizations that applied for grants from European Union research and innovation programs, the results are 33.7% and 32.2% respectively.

Through participation in the European Union research and innovation program Horizon 2020/Europe, Moldova gains access to funding for research and development projects that have already been implemented or are in the process of being implemented, such as: EU-PREACC, RED-Alert, BRIDGE-BS, TENSOR, CREST, CONNEXIONs, DOORS, SINCERE, NCP\_WIDERA.NET, EURAXESS and many others. Moldovan universities and research institutes take part in international research consortiums aimed at solving specific scientific problems. [7]

An important indicator of the effectiveness of project implementation is the effective measurement and transformation of the research contribution into an innovative result.

One of the tools for measuring innovation activity is the WIPO Global Innovation Index, which provides a comprehensive picture of the state of countries in terms of various indicators of the costs and results of innovation.

Criteria include parameters such as institutions, human capital and research, infrastructure, credit, investment and communications; creation, assimilation and dissemination of knowledge; and creative results [8]:

**Table 2**

**Global Innovation Index rankings for Eastern Partnership Countries, 2022 (2021)**

Economy Indicators	Armenia	Azerbaijan	Georgia	Republic of Moldova	Ukraine
Overall rankings	80 (69)	93 (80)	74 (63)	56 (64)	57 (49)
Institutions	55 (65)	46 (58)	30 (35)	98 (81)	97 (91)
Human capital and research	91 (94)	87 (89)	70 (60)	62 (77)	49 (44)
Infrastructure	80 (80)	90 (88)	83 (85)	84 (82)	82 (94)
Market sophistication	85 (99)	80 (36)	72 (34)	58 (74)	102 (88)
Business sophistication	84 (98)	77 (92)	64 (61)	79 (87)	48 (53)
Knowledge and technology outputs	71 (64)	117 (115)	75 (75)	49 (54)	36 (33)
Creative outputs	73 (49)	105 (67)	86 (74)	43 (53)	63 (48)

Source: developed by the authors based on WIPO, GII 2022

In 2022, all Eastern Partnership countries – with the exception of the Republic of Moldova – moved down in the overall GII 2021 rankings, the performance of Armenia, the Republic of

Moldova and Ukraine show that they effectively convert innovation inputs into innovation output, compared to Azerbaijan and Georgia, which produce less output versus investment [9].

In the study period, only two countries of this region were among the 60 largest countries in the world. These countries are the Republic of Moldova, which ranks 56th, and Ukraine, 57th. Followed by Georgia at 74th and Armenia at 80th, while Azerbaijan entered the top 100 countries at 93rd.

The Republic of Moldova, compared to the GII 2021 report, has risen in the ranking from 64th place. Other countries of the region have lost their positions from 8 positions - Ukraine and up to 13 positions - Azerbaijan. The study shows that none of these countries has systematically improved its position in the annual rankings over the past decade.

All Eastern Partnership countries have diverse and relatively unbalanced innovation ecosystems. While Georgia and Azerbaijan have some of the world's most effective institutions in the rankings, both countries have business policies as an advantage as they are in the top 30 countries, Ukraine excels in educational ethics, including public funding per student and student proportionality and teachers.

At the same time, Armenia and Azerbaijan are among the few middle-income countries that increased their total gross R&D spending in 2020, albeit at relatively modest levels.

Among the main areas for improvement in the region remain the integration of the private sector in research, development and innovation, and the availability and access to venture capital to support private sector innovation. In addition, these countries' economies could also make better use of intellectual property to promote creativity and innovation.

The modern approach to the innovation activity of universities is directly related to the involvement of young people in this process and the promotion of a policy of effective relations between science and business, which is aimed at developing interaction between commercial and academic activities with a bilateral interest in supporting creative minds and start-ups.

Among stakeholders in the field of innovation, views on the ideal relationship between science and business and universities in it can differ significantly, leading to one-sided and unrealistic policies.

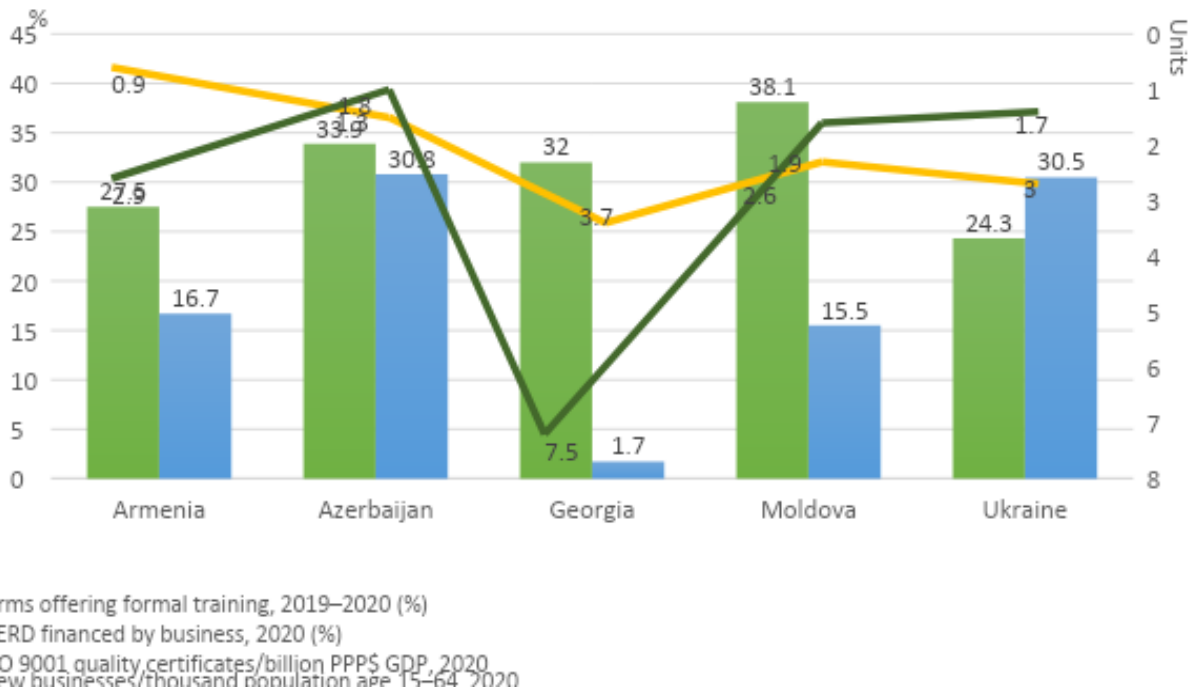
The most common science-to-business linkage policy is based on a triple helix scheme that focuses on the commercialization of knowledge generated from public R&D, especially in knowledge-intensive industries and knowledge-intensive services.

The goal is to facilitate direct links with industry to maximize "knowledge capitalization". [9] And this will lead to the reorientation of research and innovation activities of universities to the market, which in turn will expand the opportunities for integrating young people into the real sector (Fig.1.).

The researched data show that the degree of development of ties between science and business largely depends on how innovative systems and companies are able to absorb. In some countries, Georgia and Armenia, entrepreneurial activity, expressed by the number of new enterprises among the active population, is at a significantly high level.

But at the same time, the data indicate a low share of quality certificates, which can be explained by the region's low integration into global value chains, which requires the adoption of certain production standards.

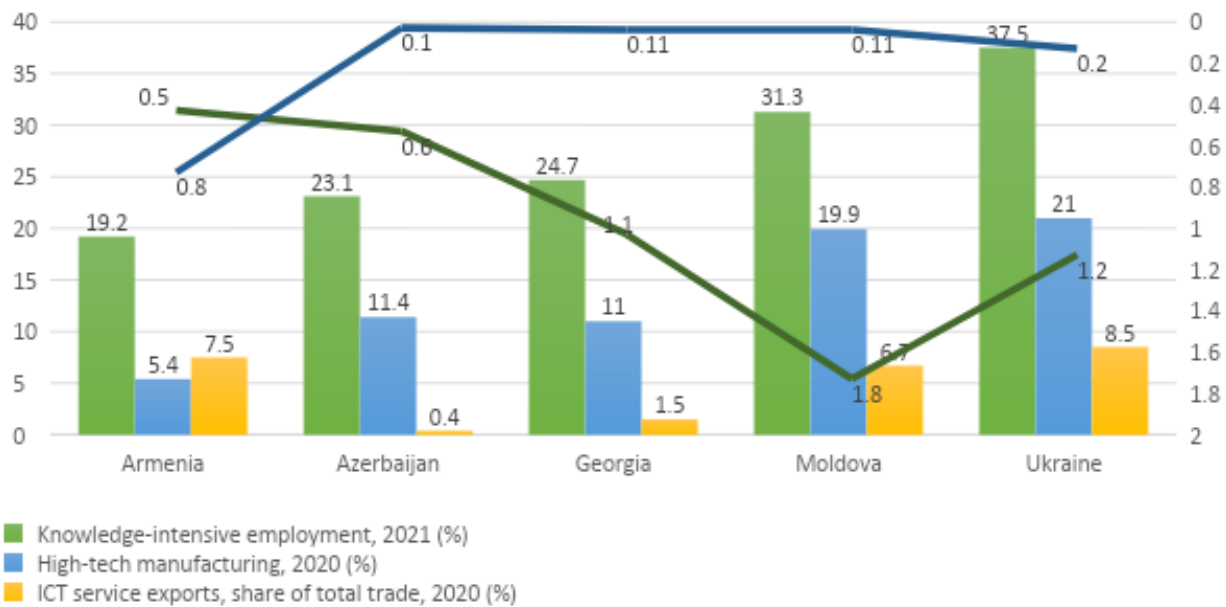
It should be noted that some indicators indicate a rather low ability to absorb imported technologies: a low share of firms that finance R&D, their very small share in R&D, and the share of researchers employed in the business sector.



**Fig.1. Indicators of knowledge and technology absorption capacity of companies in the Eastern Partnership countries**

Source: developed by the authors based on UNECE report, 2022

**Interdependence between Internationalization and Economic Development of Eastern Partnership Countries.** Internationalization plays a key role in the economic development of the Eastern Partnership Countries. By enhancing the mobility of students and staff, promoting international research collaborations, and integrating into global networks, Eastern Partnership Countries can improve the quality of their education, research and innovation, leading to increased competitiveness and economic growth.



**Fig.2. Indicators of international technology and knowledge exchange in the Eastern Partnership Countries**

Source: developed by the authors based on UNECE report, 2022



The effect of internationalization focuses on coordinating the acquisition of foreign technology and knowledge. The analysis is usually based on a set of indicators that measure the degree of knowledge intensity of economic activity, the structure of exports and imports, the level of production and the complexity of export products.

It is also necessary to use indicators that measure the scale of knowledge influx in various forms, such as: R&D, FDI, technology acquisition, software spending, joint ventures and alliances, international students. These indicators are considered as elements of a subjective assessment of the intensity of development of various clusters as one of the imperfects, but the most obvious indicators of the network capabilities of the economy.

A study of the internationalization of knowledge and the technology intensity of the economy and trade of the Eastern Partnership countries shows that some countries - the Republic of Moldova and Ukraine are more actively involved in the exchange of technologies and knowledge with the world economy than others - Azerbaijan, Armenia and Georgia.

All Eastern Partnership countries have a very low share of creative goods exports. Assessing the structure of the internationalization of knowledge, technologies and products, it should be noted that in Moldova there is a smaller share of trade in high technologies in the manufacturing industry, but a higher share of high-tech exports, as well as a similar or higher share of exports and imports of services in trade.

Armenia has a relatively high share exports of information and communication technology services, while Georgia has a relatively high share of imports of high-tech products.

Evidence suggests that these economies have integrated into global ICT service supply chains. However, in order to further develop these links, it is necessary to modernize local ICT companies. Such efforts should include closer links with national research organizations and universities.

In most of the countries studied, R&D financed directly by foreign actors is still insignificant, with the exception of Ukraine. One of the reasons for this trend is low domestic spending on R&D and low technological efficiency of R&D.

But at the same time, resource and market-oriented FDI inflows, although pro-cyclical, are at levels comparable to the European average.

### **Conclusions**

The European Union's commitment to higher education is manifest in its comprehensive policies and initiatives aimed at fostering a cohesive, competitive, and quality-driven European Higher Education Area. Programs such as Erasmus+ and Bologna Process not only harmonize higher education across Europe and promote cross-cultural exchanges but also significantly boost employability among participants. Moreover, the consistent growth in the program's budget underscores the EU's dedication to enriching educational experiences for its students and academic professionals.

Moldova's experience provides a sample of both the opportunities and challenges inherent in integrating with the European Higher Education Area. While EU projects have catalyzed reforms and improvements in Moldova's higher education system, they have also illuminated existing structural, bureaucratic, and financial challenges that the nation needs to address. External geopolitical influences further complicate the dynamics and priorities of Moldova's educational endeavors within the framework of EU collaboration.

The Eastern Partnership countries exhibit diverse and relatively unbalanced innovation ecosystems. While some have strong institutional frameworks, others excel in areas like educational

commitments. The consistent need across the board is greater private sector involvement and better utilization of intellectual property rights.

There's a pressing need to foster a more symbiotic relationship between academia and industry. Ensuring that universities' research and innovation align more closely with market needs can also pave the way for greater youth engagement.

It is imperative for countries in the Eastern Partnership to focus on bolstering their R&D capabilities, integrating academia and industry, and improving their integration into global value chains. This will not only enhance their innovation rankings but also lead to sustainable economic growth.

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