

СЕКЦІЯ 1
ІННОВАЦІЙНО-ТЕХНОЛОГІЧНІ РІШЕННЯ
МОДЕРНІЗАЦІЇ ЕКОНОМІКИ УКРАЇНИ

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**INNOVATIVE MECHANISMS FOR MODERNIZING
THE EDUCATION AND SCIENCE SYSTEM OF UKRAINE**

Currently, the development of Ukrainian society is characterized by profound transformational processes driven by globalization, digitalization, and integration into the European educational and scientific space. Under conditions of full-scale war, economic instability, and the need for post-war reconstruction, Ukraine's education and science system constitutes a strategic resource for the country's sustainable socio-economic development.

Innovative mechanisms for modernizing the education and science system involve not only updating educational content to align with contemporary labor market requirements and technological advancements, but also transforming governance models, financial instruments, and quality assurance systems, strengthening academic integrity, and fostering the integration of science with business. An important role is played by the digital transformation of the educational environment, the development of distance and blended learning, support for interdisciplinary research, and the commercialization of scientific outputs. Therefore, the modernization of the educational and scientific spheres requires the implementation of innovative mechanisms capable of ensuring their flexibility, competitiveness, and compliance with international standards.

By the order of the Cabinet of Ministers of Ukraine in 2022, the Strategy for the Development of Higher Education in Ukraine for 2022–2032 was approved. According to the Strategy, there are currently several problems that create risks and negatively affect the prospects for Ukraine's further development [1]. The main challenges include: an insufficient level of funding for the higher education system; inefficient management and use of resources; a lack of openness of higher education institutions; low accessibility of higher education; European integration aspirations that are not always supported by readiness for scientific cooperation and the adoption of best practices; the widespread imitation of student-centeredness; uncompetitive salaries and working conditions for staff; and insufficient managerial training among the leadership of higher education institutions.

Under such circumstances, preserving and developing the potential of Ukraine's education and research sector, its capacity to ensure the training of competitive human capital and to stimulate innovative societal progress, requires a clear delineation of priority areas and specific tasks for the modernization of this system:

1. Digitalization of the education and science system of Ukraine

In 2020, the European Commission approved the Digital Education Action Plan for 2021–2027, the main objectives of which are to accelerate the development of effective digital education ecosystems and to enhance digital skills and competencies for digital transformation [2]. According to the Plan, improving digital education requires well-developed infrastructure, connectivity, and digital equipment, as well as effective planning and capacity building, including modern organizational capabilities and well-trained research, academic, and teaching staff possessing digital

competencies. In addition, the availability of high-quality educational content, tools, and secure platforms that meet privacy and ethical standards and are user-friendly is essential, as is the use of assistive technologies for persons with disabilities.

2. Development of the European higher education area

The Communiqué adopted at the Conference of Ministers of Higher Education of the European Higher Education Area on 19 November 2020 in Rome emphasized the creation of an inclusive, innovative, and interconnected educational environment designed to contribute to a sustainable, cohesive, and peaceful Europe [3]. According to the Communiqué, inclusivity should be ensured by expanding access to higher education for socially vulnerable groups, in particular refugees, migrants, orphans, persons with disabilities, as well as ethnic and religious minorities.

The introduction of micro-qualifications (microcredentials) and educational micro-modules as flexible forms of acquiring and validating competencies is also an important instrument. Innovation should be fostered through the introduction of new and improved approaches to teaching, learning, and assessment, in particular through the widespread use of digital technologies in close integration with scientific research. At the same time, flexible learning pathways based on a student-centered approach should be developed.

Interconnectivity involves strengthening international cooperation and support for reforms, intensifying knowledge exchange, expanding academic mobility of students and staff, and fostering the development of intercultural and transnational competencies among participants in the educational process. A benchmark has been established whereby at least 20% of graduates within the European Higher Education Area should gain experience of studying abroad. The use of digital technologies will facilitate secure, efficient, and transparent data exchange while respecting privacy principles and will also support procedures for the recognition of qualifications, quality assurance, and mobility, taking into account the experience of implementing the European Student Card Initiative.

3. Developing future-oriented competencies and professions

The dynamic transformations taking place in society and the technological sphere require professionals to possess both domain-specific and transversal competencies. In a study on career competencies among employees and students (Kuijpers et al., 2011), these competencies were systematized, and the following key categories were identified:

- Reflection on motives: reflecting on and discussing experiences that evoke emotions to identify desires, interests, and values;
- Reflection on abilities: reflecting on and discussing strengths and areas for development based on experience;
- Job exploration: examining job requirements, values, opportunities, and career development prospects, as well as the training required;
- Career actions: proactively making decisions and taking steps to develop, create opportunities, and cultivate qualities aligned with motives for future opportunities;
- Networking: establishing, using, and maintaining contacts that are important for career development.

According to the study, career actions represent active self-management of one's career. Reflection on motives provides direction regarding desired steps and supports reflection on promising opportunities, exploration of career development pathways, and networking, which, in turn, facilitates the implementation of career steps. Both career actions and networking were found to be positively correlated with career success [4].

The results of studies conducted among employees (Talluri et al., 2024) indicate that the development of career competencies is strongly influenced by support from immediate supervisors and the presence of well-developed internal networks within organizations. At the same time, these

factors interact effectively with key personal characteristics of employees, amplifying their impact on professional growth [5].

In addition, findings from meta-analyses in the field of career competencies demonstrate that career guidance is becoming increasingly important in the context of growing individual responsibility for managing one's career trajectory in a dynamic and unstable labor market. It contributes to the formation and development of career competencies necessary for adaptation to continuous change. Traditional approaches to career guidance, which are largely based on matching individual characteristics to specific positions, are gradually losing their effectiveness in the context of labor market uncertainty. The synthesized evidence points to the need for a more comprehensive approach focused on the development of career competencies and the expansion of opportunities for both employees and students to independently construct their professional pathways. An important tool within this approach is the facilitation of systematic career dialogue, which supports conscious planning and flexible adjustment of career strategies [6].

Thus, innovative mechanisms for the modernization of the education and science system are comprehensive and systemic, encompassing content-related, organizational and managerial, financial, and technological dimensions of sectoral development. Digitalization, the updating of learning approaches, the strengthening of science–business linkages, the development of interdisciplinarity, and the implementation of academic integrity principles form the foundation for qualitative changes in specialist training and knowledge production. The implementation of these mechanisms ensures not only compliance with international standards but also enhances the role of education and science in Ukraine as a strategic resource for sustainable national development and integration into the global space.

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