

**DEVELOPMENT OF THE INNOVATION ECOSYSTEM OF UNIVERSITIES  
Platform 3.**

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**MODELS FOR BUILDING INNOVATION ENVIRONMENTS IN HIGHER  
EDUCATION INSTITUTIONS**

The innovation environment of a higher education institution is a dynamic, holistic space that combines a set of institutional structures (technology parks, laboratories, technology transfer centers) and modern technologies, which is provided by a resource and technical base (human capital, interdisciplinary teams, academic entrepreneurs, industry mentors), financing (internal grants, investments, government programs), partnerships with business (contracts with business, platforms for joint work, stakeholder networks), which, combined in the interaction of «science - business – state», contributes to the generation, validation and commercialization of ideas.

The key models for building an innovation environment, generalized on the basis of research, are the following:

1. «Triple Helix» (university - industry - state) and its expanded forms. This model emphasizes the interaction of universities, business and government as the main source of innovation.

2. The University as Platform / University 5.0 model. The model, focused on two-way knowledge transfer, places the university at the center of regional development: it not only generates knowledge, but also acts as a platform for cooperation between startups, industry and the civil sector. University 5.0 emphasizes the role of the university in creating infrastructure (laboratories, hubs, parks) and services (mentoring, acceleration, patent support). This is especially relevant for universities that strive to commercialize research results.

3. Hub-and-Spoke and network incubators/accelerators. The hub-and-spoke model involves a central innovation hub (business incubator, R&D center) and faculties, competence centers, and partner enterprises. Studies

show that such an architecture increases the efficiency of commercialization, as it concentrates resources and standardizes the processes of interaction with business.

4. Project-based / Challenge-based learning model. The innovative environment is largely shaped by educational practices: hackathons, interdisciplinary courses, dual education, and collaboration with startups. Studies have documented the positive impact of such practices on students' entrepreneurial skills and on the level of university spin-offs.

Let us dwell on the «University as a Platform» model, since the team of the Kyiv National University of Technologies and Design within the framework of the IMPACT-Campus: Innovation Hubs for Sustainable Entrepreneurship and Digital Transformation project has its own positive examples of its implementation.

Thus, within the framework of the implementation of this project, a Knowledge Valorization Center has been created, which will serve as a critical node, promoting innovation, entrepreneurship and collaboration, while aligning local opportunities with global challenges, such as climate change resilience, digital transformation and inclusion. The Knowledge Valorization Center will serve as a hub to promote interdisciplinary collaboration, including cultural and creative dimensions, which is in line with the vision of scaling creative initiatives to transform society, through the use of advanced technologies, such as artificial intelligence, augmented and virtual reality, blockchain, providing participants with future-ready digital skills and entrepreneurial thinking.

In addition, the Knowledge Valorization Center provides support for startups and their scaling through individual mentoring and the Center's resources, as it connects the university with local enterprises, with local businesses and government organizations, facilitating knowledge transfer; analyzes success factors and facilitates technology transfer to regional industrial ecosystems.

The Knowledge Valorization Center is a hub for seminars and training, while conducting applied research on sustainable development and regional innovation needs, thus creating globally interconnected local ecosystems.

The Center focuses on implementing entrepreneurship programs adapted to different target groups, integrating advanced technologies such as AR/VR and Web 3.0 to promote digital and sustainable entrepreneurial practices.

Together, these interconnected actions not only contribute to systemic transformation, but also ensure inclusiveness and regional development, effectively implementing the principles of the knowledge triangle into practical and effective results.

The following are the general stages of forming similar centers at other universities:

1. Audit of the current state - assessment of infrastructure, personnel, scientific results and contacts with industry.
2. Creation of the Knowledge Valorization Center - definition of functions, budget, KPI; launch of pilot accelerators for student teams.
3. Introduction of educational innovations - integration of challenge-based learning, organization of hackathons, stimulation of interfaculty projects.
4. Partnerships with business and government - signing memorandums, creation of joint laboratories, participation in regional program initiatives.
5. Monitoring and scaling - KPI: number of spin-offs, licensed technologies, practices, regular impact assessment.

Thus, universities should move to models that combine educational innovation with infrastructural and institutional support, which allows for the integration of social and environmental dimensions of innovation, which increases the sustainability and legitimacy of initiatives and will allow for an enhanced role of HEIs in economic recovery.

## **Literature**

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