

## Methodological System For Organizing Joint Innovation Activities Of The University And Enterprises

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**ABSTRACT:** The content and the role of the methodological system, which provides for close interaction of higher educational institutions and enterprises of the country's industry sectors are considered in the process of training modern innovative professionally-oriented graduates with creative thinking, capable of creating innovations and implementing them into the real sector of the economy

The education system of the republic is aimed at ensuring high quality level of graduates. The determining content and quality of such training in the education system are innovative processes: complex, mutually influencing and mutually enriching processes. The choice of an innovation-oriented development path contributes to the provision of the education system with a high quality of training of specialists and an increase in the integration level of the market of educational services into the labor market by attracting faculty and students to the innovative activities of the republic's economy sectors. This will make it possible to orient the modern system of higher education towards a science-intensive, practically directed system of training and retraining of specialists [1].

**An innovation-oriented way of development of a modern university** is an objectively conditioned, purposeful and irreversible process. This process is carried out mainly through the purposeful involvement of the teaching staff and students in the innovative activities of the branches of the economy of the republic.

The modernization of educational, scientific, and spiritual-educational work of the university requires deep integration of scientific, educational and innovative activities, the development and implementation of mechanisms that increase the real competitiveness of the university through the formation of innovative creative potential. In these conditions, the main task of the innovative university is the high-quality training of innovation-oriented specialists in the priority fields of engineering and technology based on a single process of obtaining, disseminating and applying new knowledge [2]. Such training of specialists for an innovative economy requires the formation of an innovative environment of the university, and the appropriate qualifications and culture of teachers [3]. Improvement of innovative activities at the university should begin in the scientific sector and be based on the search and development of innovative developments through the wide involvement of faculty and students to solve innovative problems of enterprises in economic sectors [4]. Based on these tasks, we have developed a methodological system for attracting faculty and students to the innovative activities in the branches of economy of the republic.

**The aim of the methodological system** is an effective organization of innovative activities and social partnership of the university in a market economy, the formation of innovative intellectual potential, ensuring broad participation of the teaching staff and students in the innovative activities in the branches of the economy of the republic.

**The objectives of the methodological system** are:

- improving the mechanisms for organizing scientific and innovative activities and directing them to the real needs of the economy sectors;
- introduction into practice of a differentiated form of organization of **qualifying practice of students** in the following areas: **pedagogy, science and production**;
- introduction into practice of **innovative forms of advanced training of the teaching staff** integrated with production.

The methodological system provides for multi-stage activities to attract faculty and students to the innovative activities in the branches of the economy of the republic.

- **In the first stage**, a base of needs for innovative developments is formed. The originality of this stage lies in the fact that by **organizing students' qualification practices** in innovative enterprises, the need for innovative developments is determined. It also provides for the formation of a base of needs by organizing presentations of enterprises, requests for innovations from organizations, through competitions of the Coordination Committee for the Development of Science and Technology.

- **In the second stage**, the teaching staff and students are familiarized with the base of innovative needs by **creating an information portal and a system of visual aids**.

- **In the third stage**, **innovative groups** are created with the involvement of faculty and students, as well as leading specialists from enterprises and organizations. At this stage, information exchange and consultation between the department and enterprises are carried out.

- **In the fourth stage, joint innovation activities** are carried out. Innovative scientific work is carried out, students perform term papers, graduation qualification works, master's, Ph.D., and doctoral dissertations are being prepared.

- **In the fifth stage**, the achievements of joint research are determined, the results of which are **scientific and technical developments, innovative entrepreneurship and the formation of innovative intellectual potential**.

- **In the sixth stage**, innovative developments are introduced into production. As a result of the implementation, **enterprises are modernized, scientific results are commercialized**, and **scientific potential** is increased.

**The implementation of the methodological system** is carried out in the following directions:

1. Development of **social partnership** with enterprises in the sectors of the economy.

2. Development of the **scientific and innovative** component of the university.

3. **Modernization** of educational processes.

4. Formation of **innovative intellectual potential**.

5. Implementation of the **incentive system for effective activity**.

Information support of the methodological system is carried out on the basis of a **portal** that provides system integration of various information resources [4]. The tasks of the portal are: information support of the partnership between the university and enterprises of the industries of the economy, creating conditions for continuous information exchange, introducing a remote form of dialogue, promptly forming a base of needs for innovative developments, achieving adaptability in the transfer of innovative knowledge, attracting faculty and students of regional higher educational institutions to innovative activity.

**The methodological system developed for the first time**, allows the university to solve the problems of the **continuity of innovative knowledge**, skills and abilities from generation to generation, the implementation of innovative scientific research creating a **scientific basis** for the development of promising areas of the economy, **ensuring the training** of highly qualified personnel leading innovative activities in enterprises of the economic sectors, the **formation of innovative intellectual potential** of the university and **new mechanisms** for organizing the qualification practice of students.

To implement the methodological system, a set of measures is envisaged to improve **educational, scientific and spiritual-educational** activities in the context of **informatization** of all university activities through the formation of an **electronic educational environment**. It is envisaged to introduce a **multi-stage** organization for the assimilation of knowledge and skills by students in **information and communication technologies**, and **foreign languages**. The educational process will be improved based on the future field of the professional activity of graduates: **pedagogy, research and production**.

The methodological system allows **to improve the content and technologies** of education in harmony with the modern requirements of an innovative economy and to prepare students for innovative activities. At the same time, an **innovative approach** will be implemented in organizing the educational process, **pedagogy of cooperation** will be introduced into practice, and conditions will be created for the development of independent work of students. A special place is occupied by the improvement and development of the knowledge **quality control** system. The core of all these processes is the formation of **innovative competence** of the teaching staff by organizing advanced training in manufacturing enterprises.

In the conditions of innovative activity, the **competitiveness** of scientific potential is ensured and its transformation into one of the factors in the development of an innovative economy. The **principle of acquiring knowledge through science** is being implemented, and the **infrastructure for innovation** is being created. Scientists and students learn the **skills of commercializing** intellectual property.

Spiritual and educational activities provide for the **development of personality** and the expansion of conditions for vocational training, ensuring **effective adaptation** to the conditions of innovative activities, the formation of **global thinking** and **global competence** in graduates in the context of active participation of innovative activities of economic sectors. In order to develop the intellectual ability of students, it is necessary to create an **innovative environment**.

The **informatization** of all activities of the university allows raising educational and scientific activities to a higher quality level through the formation and development of **electronic educational infrastructure**, the creation of **electronic educational resources**.

The implementation of the methodological system provides for close interaction of higher educational institutions and enterprises of the country's economic sectors in the process of training modern innovative personnel with creative thinking, capable of creating innovations and their introduction into the real sector of the economy.

Thus, the methodological system of attracting faculty and students to the innovative activity of economic sectors creates the possibility of innovative development of universities as an important component of the modernization of the innovative economy of the Republic of Uzbekistan.

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