

**ON THE MODERNIZATION OF PROFESSIONAL EDUCATION IN THE  
BOLOGNA PROCESS  
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Bologna process - the process of convergence and harmonization of education systems in the countries of the Bologna agreement, with the aim of creating a common educational space, which is a constructive dialogue between the higher education systems of different countries, aimed at the creation of a single area of professional education. This process began in 1999, when 29 ministers of education of European countries signed the Bologna Declaration on the establishment of a single European educational area in the city of Bologna (Italy), the main principles of which - the transparency, comparability of diplomas and degrees - are specified in the introduction of two-cycle higher education (Bachelor + Master), then - Doctorate and development of a common approach to the control of the quality of education. The tools of the Bologna process is the single form of the Diploma Supplement (for ease of comparability), the scientific and academic mobility and the common system for assessing the complexity of the educational courses (European Credit Transfer System). The Bologna Declaration was a stimulant of the process of higher education reform and modernization of the educational space as a whole.

Kazakhstan's joining the Bologna process was a historic event and gave a new impetus to the modernization of the national system of higher education. However, Kazakhstan's participation in shaping the European Higher Education Area is one of the mechanisms of the internationalization of higher education. Cooperation and integration into the world educational space - this is one of the main aspects of the development policy of Kazakhstan and foreign policy of the country. From the beginning, the Bologna process has been designed to increase the competitiveness of European higher education, to promote the mobility of students, to facilitate employment by introducing a system that makes it easy to determine the level of training and degree of graduates. Another important goal that was set from the outset, is to provide a high quality learning process. In the process of multiple meetings of Ministers of Education the main provisions of a single educational process were developed. Dividing students into undergraduate and graduate students was asked to be replaced by qualification degrees with a focus on learning outcomes. Public higher education control concept has been introduced and is now perceived as a major in the field of higher education policy for the implementation of the main objectives: building a single area of higher education as a key area of citizens' mobility and employability; formation and strengthening of intellectual, cultural, social and scientific-technical potential of the society; increasing prestige in the world of higher education; ensuring the competitiveness of universities with other education systems in the fight for students, the influence; achievement of greater compatibility and comparability of the national systems of higher education; improving the quality of education; increasing central role of universities in the development of cultural values in which universities are considered as carriers of social consciousness.

The purpose of Kazakhstan's participation in the Bologna process - improving access to European education, further improving the quality and increasing the mobility of students and teaching staff through the adoption of comparable systems of higher education degrees, the use of a system of credits, granting the graduates of Kazakhstan universities the European Diploma Supplement. In accordance with the obligations assumed on joining the Bologna Declaration, Kazakhstan has time until 2020 to implement a number of measures. Bologna Declaration set the adoption of a system of easily readable and comparable academic degrees, based on two main cycles - undergraduate and graduate. In this regard, in Kazakhstan since 2004 was introduced multi-stage structure of higher and postgraduate education: Bachelor, Master and Doctorate (PhD). This structure has found its legal consolidation in the new Law of the Republic of Kazakhstan "On Education" [1].

Inclusion of Kazakhstan in the Bologna process, as noted by international experts, provides real advantages for Kazakhstan universities and students. These are: to bring home the educational

programs and curricula in line with European standards; recognition of national qualifications and academic degrees; ensuring academic mobility of students and teachers; adoption of educational credits of Kazakh universities students in foreign universities; the implementation of double-diploma education programs; convertibility of the Kazakh higher education diplomas in the euro area, giving the right to graduates to work in any of the member countries of the Bologna Process [2].

According to the Bologna Declaration, recognition of educational programs provided by the introduction of a system of credits. Therefore, for the international recognition of national educational programs, mobility of students and teachers, as well as improving the quality of education and ensure continuity of all levels and stages of higher and postgraduate education in the universities of the Republic a credit technology of training was introduced.

So that learning outcomes were comparable, they should be evaluated within the framework of a common system. In Europe, the most common system ECTS (European Credit Transfer System). Credit system has two main functions. First – transfer of courses obtained at another university; in other words, the required amount of units a student can get partially at another university, and his "own" university must (re) transfer them - without this condition academic mobility cannot be. The second function - accumulative. A student can, for various reasons get an education, by "portions", with a time gap, changing universities, etc. Currently, knowledge becomes obsolete very quickly. Therefore, it is desirable to give the graduate a relatively extensive training and teach him to replenish, update knowledge and skills as required. It is this type of education that Baccalaureate is aimed (in different systems - from 3 to 4 years). Master degree (usually 1 - 2 years) suggests a narrow and deep specialization and is often focused on undergraduate research and / or teaching. It should be stressed that bachelors already gives the graduate a full university degree, and graduate with a bachelor's degree can apply for full-time positions, which, according to the existing regulatory framework need the applicant to have full university degree.

Kazakhstan's participation in the Bologna process opens up great opportunities for Kazakhstan universities in the implementation of joint educational projects, such as the double-diploma education, mutual recognition of academic courses, international accreditations, etc. Consistency in education can achieve the following objectives: the formation of educational programs, which match all the basic elements of educational process (curriculum, teaching methods and evaluation, requirements for the content of courses and faculty requirements); Automatic recognition of learning outcomes at the university - all partner partnership participants, which is a guarantee of embedding mobility element in the educational process; creation of a common program management authority; issuance of joint (on behalf of program participants) diploma or diplomas participating universities on completion of training. These programs have, as a rule, long-term interest of all its participants. They can provide students with the opportunity to purchase additional academic and cultural experience abroad and institutions of higher learning - a new possibility of cooperation and expansion of its capacity. Currently, the program of double-diploma education is being implemented in 37 universities of Kazakhstan. Through the implementation of the program of double-diploma education in cooperation with foreign universities to successfully solve the problem of convertibility of the Kazakh higher education diplomas, their recognition at the international level, the involvement of local universities in international rankings and other educational projects.

Analysis of the current state of implementation of the Bologna Declaration shows that many problems are solved successfully: 1) the adoption of a system of comparable degrees, including through the introduction of the Diploma Supplement to provide employment opportunities for citizens and improve the international competitiveness of the higher education system; 2) the introduction of two-cycle study: pregraduate and graduate, the first cycle lasts for at least three years, the second should lead to a master's degree or doctorate degree; 3) introduction of Credits Transfer System to support large-scale student mobility (credit system), which also provides the right for students to choose to study subjects, the basis adopted by the ECTS

(European Credit Transfer System), serving as a funded system, capable of operating under the "training concept throughout their lives "; 4) the development of mobility of students (based on the execution of the two preceding paragraphs): extension of the mobility of teaching staff by offsetting the period spent by them to work in the European region, established standards of transnational education; 5) to promote European cooperation in quality assurance with the aim to develop comparable criteria and methodologies; 6) implementation of internal quality control systems of education and involvement of external evaluation of university students and employers; 7) to promote the necessary views in higher education, especially the development of training plans, inter-institutional cooperation, mobility schemes and integrated programs of study, practical training and research.

Creating a European Area of Higher Education by itself does not mean the achievement of all the goals of the Bologna Process. Currently, the Bologna process and higher education institutions have entered a new phase, namely consolidation, improvement and revitalization of vocational education system in the world. The most important thing in the context of the theme of this forum - the transition to the real integration of education, science and innovation, based on an alloy of education, research and innovation. One of the most important mechanisms of this integration is to create research universities. While confident to say that Kazakhstan's universities are ready to become research universities is early. We need a detailed analysis of world experience, adapting to the characteristics of universities and basic problems of educational, scientific and innovative development, the establishment of the principles of a research university interaction with society and the economy. When these principles are worked out, you can begin to create the first research universities, pre studied deeply the foreign experience of formation and development of research universities, academic mobility of students and teachers, innovation, commercialization of research and development activities of scientists.

Integration of science and education is a prerequisite for innovation development of Kazakhstan's economy. Dynamic changes in the socio-economic relations, the development of competitive advantages of Kazakhstan in the modern global economy requires a major modernization of education, introduction of innovative technologies, the transformation of education in a flexible, self-developing system to adequately respond to the challenges and changing demands of society. Education should be the driving force that can significantly improve the quality of life of citizens. Scientific and technical sphere has great potential and it is necessary to create a comfortable environment for business development in various fields of science: to provide economic and tax incentives for companies engaged in the development of new techniques and technologies, including intellectual property. If the last pre-industrial society as the main factor of production used land, capital and manual labor, and the Industrial Revolution dramatically increased the role of raw material, the modern post-industrial information society as the main factors of development of production are the industrial competitiveness, cost-effectiveness, the pace of innovation in technology. This, in turn, are increasingly dependent on the state of knowledge and intellectual abilities frames. The better the training of specialists, capable of adapting to changing conditions and technologies throughout their lives, the more effective the economic development of the country is. Suffice it to recall that today India's exports produced only in the local technology software parks receives income, comparable with the income derived by the Russian Federation on the export of all kinds of weapons. And in the US system of higher education training is considered as a double investment - in human and production [3].

The modern world has entered an era of economic mercantilism, in which science and education are of real value to the extent that they produce economic benefits. There is a tendency to turn education institutions and science in business structures focused on making a profit. Kazakhstan in this regard is no exception. At the same time, new knowledge and self knowledge transfer of the young generation from the public good is transformed into a part of the market mechanism, a country's instrument for global leadership in high-tech, these processes we see in the United States and in Western Europe, and in Japan. All this points to the fact that in the current environment academic freedom of universities, and the subjects of scientific activity are very

limited. On one hand, it is vital to integrate with each other. On the other hand, increasingly abandoning the disinterested search for truth and service to science, embedded in the most severe market structure to again be "crushed" in a new form of international race - "race to new technologies and education" [4].

Careful attention of governments of developed countries to the state of higher education identified the following shortcomings. University graduates have insufficient basic training. Underrepresented analytical thinking, the ability to critically evaluate objects and modeling problems, simulation, optimization on the basis of knowledge in the basic sciences. Graduates do not consider their profession as an integrated process; they are not able to adapt to changing technical and technological environment. Western experts have concluded that today, science and technology is developing so fast that there is no time after finishing high school to "complete their education" and "reach" to the modern level of development of high-tech production, it is necessary already in high school to include intensive research activities with a focus on the future professional employment [5].

In the first place it is necessary to support those higher education institutions that implement innovative programs. Investments in basic and applied research to a greater extent have to help the preparation of highly qualified young professionals for the production of, and investment in education should help to attract scientists into the ranks of the teaching staff and the development of scientific research in higher education involving students. The teacher has the right to keep up the current level of science and the scientist must not forget the need for a change and the creation of "their school". Thanks to the fact that innovative mechanisms are being actively implemented in all social institutions, education is one of the most popular areas of the market. The result is accelerated in comparison with the recent past, the updated means and conditions of education, the expansion of opportunities for continuous education throughout their lives, the appearance of distance education resources. Remote educational technologies based on the capabilities and means of information and communication allow radically modernize the educational process. Using a remote system creates conditions for education regardless of the location of students, reduce the cost of education and to expand access to information resources. Expanding opportunities for continuing education, the use of distanced education tools allow you to create a competitive education services and education form a single market.

The problems of education and the economy must be addressed through a strategic partnership of educational institutions and the business community. Introduction of innovative technologies in the educational process, the development of new business involving technology in the development of scientific research, investments in the education system will not only increase the demand for building science and education, but also will give a boost to the economy. Thus, investments in the education system, the development of new business involving technology in the development of scientific research, state guarantees and support of research and development - all this will make the transition of the national economy to the innovative path of development.

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