THE SELF - CERTIFICATION REPORT

ON COMPATIBILITY OF THE KAZAKHSTAN NATIONAL QUALIFICATIONS FRAMEWORK FOR THE HIGHER EDUCATION WITH THE FRAMEWORK FOR QUALIFICATIONS OF THE EUROPEAN HIGHER EDUCATION AREA

Nur-Sultan, 2020

CONTENTS

LIST OF ABBREVIATIONS

RK	The Republic of Kazakhstan
ISCED	International standard classification of education
QF-EHEA	Framework for Qualifications of the European Higher Education Area
EQF	European Qualifications Framework
SCES	State compulsory educational standard
HEREs	National Team of Higher education reform experts
MLSPP	The Ministry of Labor and Social protection of population
EQAR	The European quality assurance register
ENQA	The European Association for Quality Assurance in Higher Education
ECTS	The European Credit Transfer and Accumulation System
ESG	The European Standards and Guidelines for Quality Assurance
EHEA	The European Higher Education Area
ENIC-NARIC	Network of Information Centers on academic recognition
BFUG	The Bologna Follow-Up Group
NQS	The National Qualifications system
NQF	The National Qualifications framework
HE-NQF	The National Qualifications framework for Higher education
SQF	The Sector qualifications framework
PS	The Professional Standard
SPDEdS	The State Program for development of education and science
MES RK	The Ministry of education and science of the Republic of Kazakhstan
NCE "Atameken"	The National Chamber of entrepreneurs of the Republic of Kazakhstan «Atameken»
IQAA	The Independent Agency for Quality Assurance in Education
IAAR	The Independent Agency for Accreditation and Rating
KAZSEE	The Kazakhstan Association for engineering education
ARQA	The Independent Agency for accreditation and examination of the quality of education
ECAQA	The Eurasian Centre for Accreditation and Quality Assurance in Higher education and Health care
ACBSP	Accreditation Council for Business Schools and Programs
MusiQuE	Music Quality Enhancement

ASIIN	The Accreditation Agency for educational programs on engineering science, computer science, natural science
ACQUIN	Accreditation, Certification and Quality Assurance Institute
FIBAA	The Foundation for International Business Administration Accreditation
TPE	Technical and professional education
EP	Educational programs
PhD	Doctor of philosophy
BP	The Bologna process
UNT	Unified national test
BPAMC	The Bologna process and academic mobility Center
ICT	Information and communication technologies
GEC	General education courses
BC	Basic discipline
MOOC	Massive open online course
GCEA	The General Classifier of Economic Activities
NCP	The National Classifier of professions
NQT	The National Qualification Test

Glossary

1) qualification – any degree, diploma or other certificate issued by a competent authority that confirms that certain learning outcomes have been achieved, usually after the successful completion of a recognized (licensed) educational program.

2) qualification level – a series of sequential steps (logical development) expressed as part of a range of general results against which typical qualifications can be established

3) descriptor – description of the main learning outcomes achieved by students upon completion of higher education programs at different levels of qualifications.

4) national qualifications system – a set of documents (NCLA (see page 20), NQF, SQF, PS), united by a single system of principles, mechanisms and criteria for assessment of the achieved qualifications, and allowing to regulate the supply and demand for qualifications of specialists in the labor market, as well as allowing to ensure interaction between education and the labor market;

5) national qualifications framework – a unified description of qualifications based on learning outcomes, defining level descriptors, and through which all qualifications and other achievements in higher education can be described and linked to each other in a consistent way, and which defines the connection between higher education qualifications;

6) international qualification – a qualification awarded by an officially established international body (association, organization, sector, or company), or by a national body acting on behalf of an international body, that is applied in more than one country, and that includes learning outcomes evaluated in accordance with standards set by an international body;

7) learning outcomes - description of what the learner knows, understands, and is able to do at the end of the learning process;

8) ability – a personality trait, which is a condition for the successful implementation of a certain type of activity;

9) knowledge – a result of processing of information as a set of facts, principles, theories and practices related to the field of work or learning;

10) skill - ability to apply knowledge and use know-how to perform tasks and solve problems;

11) proficiency – established ability to effectively perform certain work in the course of repeated use of knowledge and skills;

12) responsibility and autonomy – a student's ability to apply knowledge and skills independently and responsibly;

13) competence – acquired ability to solve personal, social, and/or methodological problems in professional and personal communication situations based on knowledge, skills, and experience;

14)   validation of non-formal and informal learning – process of recognition by the competent authority that a person through non-formal and informal learning has achieved learning outcomes that meet a certain educational standard. The recognition process involves: 1) identifying specific learning outcomes during the interview; 2) documenting the results of the interview in order to visualize the individual experience of a student; 3) formally evaluating this experience; and 4) certifying the evaluation results. Based on the results of the recognition process, it is possible to award a partial or full qualification;

15)   formal recognition of learning outcomes – process of granting official status by the competent authority to the received learning outcomes for further learning or employment by (i) awarding qualifications (certificates, diplomas or titles); (ii) validating non-formal and informal learning; (iii) confirming compliance, allocating credits or granting exemptions;

16)   academic credit – unified unit of measurement of the volume of scientific and (or) educational workload of a student and (or) teacher;

17)   transfer of credits – a process that allows individuals who have accumulated credits in one context to evaluate and recognize them in another context;

18)   sectoral qualifications framework – structured description of the qualification levels recognized in a particular industry;

19)   Bachelor's degree – a level of higher education aimed at training personnel with the award of a bachelor's degree in the corresponding educational program with the mandatory development of at least 240 academic credits;

20)   Higher special education (specialist degree) – a level of higher education aimed at training personnel with the qualification of a specialist in the corresponding educational program with the mandatory development of at least 300 academic credits;

21)   Master's degree – a level of postgraduate education aimed at training personnel with the award of the Master's degree in the corresponding educational program with the mandatory development of at least 60-120 academic credits;

22)   PhD – postgraduate education, whose educational programs are aimed at training personnel for scientific, pedagogical and (or) professional activities, with the award of the degree of doctor of philosophy (PhD) or specialized doctor with the mandatory development of at least 180 academic credits.

23)   residency – a level of postgraduate medical education, the purpose of which is to acquire or change the professional qualification of a doctor in the relevant specialty to get access to an independent clinical practice with the mandatory development of at least 140 academic credits.

Synopsis

The Self-certification of the National Qualifications Framework for Higher education contains the results of two interdepartmental Working groups on self-certification established by the Ministry of education *(Order No. 111 dated 28.03.2013, Order No. 152 dated 17.04.2019).*

The last working group included the representatives of the Ministry of education and science, the Ministry of labor and social protection of the population, the National chamber of entrepreneurs "Atameken", industry associations and higher education institutions.

This working group has developed a separate National qualifications framework for higher education, compatible with the overarching Framework for Qualifications of the European Higher Education Area (QF-EHEA).

Self-certification is carried out in order to ensure recognition of the qualifications of Kazakhstan's higher education institutions graduates and increase their competitiveness both within the country and abroad.

It is assumed that the descriptors of this qualifications framework will be the basis for the descriptors of levels 6, 7 and 8 of the updated National Qualifications Framework.

The purpose of this report is to demonstrate to the Bologna process country members and other stakeholders that the system of higher and postgraduate education of the Republic of Kazakhstan in the process of directed reforming is built in accordance with the key principles and program documents of the Bologna declaration that defines its educational policy. Compatibility and comparability of RK HE-NQF and QF-EHEA indicates the successful harmonization of the national system of higher and postgraduate education of Kazakhstan with the Bologna process.

The HE-NQF was developed in accordance with the General strategies, frameworks and toolkits for the development of higher education in the European higher education system. It is designed to ensure active cooperation and partnership between ministries and the higher education system of the Republic of Kazakhstan, between employers and universities, between universities and citizens.

The implementation of HE-NQF is aimed at:
-       internationalization of higher and postgraduate education in Kazakhstan;
-       to ensure the possibility of social integration based on the principles of development of the social dimension and lifelong learning;
-       to achieve international compatibility of Kazakhstan's academic programs and qualifications through the description of learning outcomes in the system of knowledge, skills, responsibility and autonomy, that meet the needs of the modern labor market;

-	formation of a unified national area for educational services and labour market through the creation of a common methodological ground for sectoral qualifications frameworks, professional and educational standards and educational programs of the Republic of Kazakhstan, which will ensure the objectivity of the State order for training and quality certification;

-	to improve the quality of educational services for all categories of citizens based on university and civic values, which will allow everyone to become successful in the future;

-	to improve the quality parameters of academically flexible educational programs based on modern generally recognized scientific and theoretical knowledge, provided with advanced educational technologies, including digital ones, implemented by universities, mainly together with potential customers, employers, and foreign partners.

The report consists of a synopsis and 4 parts.

Introduction

The increasing labor and academic mobility of citizens is a global trend in the 21st century .The Bologna process was initiated in 1999 by the Ministers of education of 29 countries in order to promote the mobility of citizens at the labor market and strengthen the competitiveness of European higher education, and to harmonize national higher education systems.

In order to ensure compatibility of qualifications obtained in different countries, the overarching Qualifications framework for the European Higher Education Area (QF-EHEA) was developed and approved in 2005 at the conference of Ministers of education of the Bologna process countries.

This framework was created to link the various national qualifications frameworks with the Bologna framework in order to strengthen international transparency and recognition of qualifications.

All higher education cycles of QF-EHEA are based on Dublin descriptors that describe the main learning outcomes achieved by students upon completion of higher education programs at different levels of qualifications.

In 2007 at the meeting of Ministers of higher education in London, it was determined that the link between the national qualifications framework and QF-EHEA will be implemented through a self-certification procedure, when responsible authorities of countries provide reports confirming that the national framework corresponds to QF-EHEA.

In 2012 Kazakhstan developed and approved the National qualifications framework (NQF), which contains 8 levels and formally corresponds to the European qualifications framework adopted in 2008.

In order to prepare a self-certification report the Interdepartmental working group was established by the order of the Minister of education and science of the Republic of Kazakhstan *(Order No. 111 dated 28.03.2013)*.

It incorporates the descriptors of 6-8 levels of NQF corresponding to higher and postgraduate education for the compatibility with QF-EHEA. The Draft report showed that these descriptors do not fully correlate with the descriptors of QF-EHEA.

The relevant comments made by the foreign experts: Eva Khmelecka (Poland) and Volker Gehmlich (Germany). Both experts drew attention to the lack of compatibility of descriptors. In particular, NQF descriptors focus on work, while the QF-EHEA also includes the learning process. In addition, attention is paid to the descriptors identity of level 5 and level 6.

At the 2018 Ministerial conference in Paris, the issue of self-certification was reactualized. One of the three key commitments was "a three-cycle system compatible with the overarching Qualifications framework of EHEA and first- and second-cycle degrees comparable to ECTS".

The Interdepartmental Working group was established by order of the Minister of education and science *(order No. 152 dated 17.04.2019)* to prepare a new Report on self-certification.

Having studied the weaknesses, the Second working group, composed of the representatives of MES and MLSPP, "Atameken", industry associations and universities, decided to develop a separate Qualifications framework for Higher education (hereinafter referred to as HE-NQF), given its compatibility with QF-EHEA.

This group has re-developed descriptors for higher and postgraduate education levels: bachelor, master, and PhD. The short cycle was not considered, since in accordance with the Law of the Republic of Kazakhstan "About education" (dated June 7, 1999); it does not apply to higher education. The educational programs of post-secondary education at the fifth level are aimed at preparing applied bachelors from citizens with secondary education (general secondary or technical and vocational). Post-secondary education programs provide for the study of technical and vocational education programs integrated into the educational modules with the inclusion of individual modules or disciplines of bachelor's educational programs.

The compatibility procedure with QF-EHEA was carried out in accordance with the established criteria and procedures.

The results of the analysis allow us to conclude that the developed HE-NQF is correlated with the QF-EHEA. The conclusion was supported by all stakeholders who were included in the consultation process.

The criteria and procedures of self-certification

Self-certification is based on the procedures and criteria developed by the Bologna process Working group on NQF presented at the meeting of Ministers of education in Bergen in 2005. The criteria and procedures were adopted at the meeting of Ministers of higher education in London in 2007. The list includes seven verification criteria to confirm the compatibility of the HE-NQF and QF-EHEA, and six procedures to guide the self-certification process.

Criteria

➢ The national framework for higher education qualifications and the body or bodies responsible for its development are designated by the national ministry with responsibility for higher education

➢ There is a clear and demonstrable link between the qualifications in the national and the cycle qualification descriptors of the European Qualifications Framework for Lifelong Learning

➢ The national framework and its qualifications are demonstrably based on learning outcomes and the qualifications are linked to ECTS credits

➢ The procedures for inclusion of qualifications in the national framework are transparent

➢ The national quality assurance system for higher education refers to the national framework for higher education qualifications and is consistent with the Berlin Communiqué and any subsequent Ministerial Communiqués in the Bologna Process

➢ The national framework, and any alignment with the European Qualifications Framework for Lifelong Learning, is referenced in all Diploma Supplements

➢ The responsibilities of the domestic parties to the national framework are clearly determined and published.

Procedures

➢ The competent national body/bodies shall self-certify the compatibility of the national qualifications framework with the European Qualifications Framework for Lifelong Learning.

➢ The self-certification process shall include the stated agreement of the quality assurance bodies of the country in question recognised through the Bologna Process.

➢ The self-certification process shall involve international experts.

➢ The self-certification and the evidence supporting shall address separately each of the criteria established and shall be published

➢ The ENIC/NARIC network shall maintain a public listing of States that have completed the self-certification process [www.enic-naric.net].

➢ The completion of the self-certification process shall be noted on Diploma Supplements issued subsequently by showing the link between the national qualifications framework with the European Qualifications Framework for Lifelong Learning

1. The Higher Education system of the Republic of Kazakhstan

1.1 The main stages of development of new higher education system

The acquisition of independence by the Republic of Kazakhstan in 1991 posed the most important task for the National education system - entry into the world community with increased integration of the national education system into the international educational area. In this regard, the state policy in the field of education was carried out in the direction of reforming the legislative framework, management and financing of the education system in the context of the task.

The beginning of the formation of a new national model of education was laid by the adoption of the new Law of the Republic of Kazakhstan "On Education" on June 7, 1999.

In accordance with this Law, along with the previously existing higher specialized education, higher basic education (bachelor's degree) and higher scientific and pedagogical education (master's degree) were introduced into the structure of higher professional education. Undergraduate programs are implemented over a period of four years and culminated in awarding persons who have successfully passed the final examination to the appropriate qualification and academic degree of "Bachelor". Higher scientific and pedagogical education is confirmed by the award of qualifications and "Master" academic degree to a person who successfully passed the final examination. At the same time, the period of Master' degree study on the basis of higher basic education was two years; on the basis of higher specialized education was one year.

The basis for the implementation of the two-cycle higher education was the Classifier of directions of training and specialties of higher professional education of the Republic of Kazakhstan, approved by order of the Committee for Standardization, Metrology and Certification of the Ministry of Economy and Trade of the Republic of Kazakhstan dated April 23, 2001 No. 117. Section 1 of this Classifier gives 5 directions for the preparation of bachelors and masters: natural sciences, humanities and socio-economic sciences, medical sciences, interdisciplinary sciences, technical sciences. Section 2 shows the specialties of training graduates in 41 specialty groups.

Direction of training means a one-specialized group of educational programs, as a result of which a complex of competencies is obtained that allows solving problems in areas related to the profile of the profession.

In accordance with the Classifier, in 2001-2003 state compulsory standards of higher education were developed for all bachelor and master directions and specialties of higher specialized education.

From 2003-2004 academic year, a credit system was introduced in universities in the experimental mode. From this moment, measures began to be taken to join Kazakhstan to the Bologna process. We have been fully accepted and, moreover, we have become adherents of all the postulates of the Bologna Declaration.

It should be noted that initially, the American model of the credit system was taken as the basis of Kazakhstan's credit technology of education. At the same time, special conversion factors were introduced to convert Kazakhstan credits to ECTS credits. From the 2008-2009 academic year, all universities transferred to a credit system. By this time, a three-cycle model was implemented in the Kazakhstani higher education system: Bachelor-Master-PhD; credit system as ECTS; academic mobility of students, teachers and researchers; quality assurance system according to European standards.

2010 was a historic year for Kazakhstan's higher education. Kazakhstan entered the Bologna process and became the 47th member state of the European Higher Education Zone. The accession of Kazakhstan to the European education area is not only the next step in the integration processes, but also meets the internal needs of the Kazakhstani educational services market.

In the first half of 2014, Kazakhstan was given the mission to co-chair the Bologna process. Currently, the measures are being taken to further implement the provisions of the Bologna Declaration. Education programs are developed in accordance with Dublin descriptors and employer recommendations. The academic freedom of universities in the development of educational programs has been expanded. A Kazakhstan model for transferring credits by ECTS type has been developed. Kazakh universities issue the European Diploma Supplement. As part of the implementation of the National Qualifications System, the formation of educational programs based on professional standards has begun.

Since 2018, a Kazakhstan credit has been equated with an ECTS credit.

Thus, over the years of independence, the higher education system went through several stages in its development, during which the following tasks were solved: a regulatory legal framework was created, a system of public and private universities was formed; training mechanism on a paid and free basis was unified; it was introduced a new model for the formation of the student body, it was formed a mechanism for educational grants and loans; a transition has been made from the principle of "financing of facilities" to the principle of "financing of educational entities"; a three-level model for higher and postgraduate education was built:

undergraduate - graduate - doctoral studies; the Classifier of directions of training for higher and postgraduate education has been unified, state compulsory standards for educational levels have been developed, credit technology has been introduced at universities; distance learning; adjusted principles and approaches to the management of higher education in the context of the development of autonomy of universities; a transition is being made from education quality control to a quality assurance system; there was an integration of universities and scientific organizations; Kazakhstan higher education has entered the EHEA by joining the Bologna process; the academic mobility of teachers and students; it was taken a course to strengthen the internationalization of higher education; National Qualifications Framework was adopted and the process of developing professional standards was launched; educational programs reflect learning outcomes and are developed in the context of employers' expectations.

Currently, the level of education of the population of Kazakhstan is relatively high and is approaching the average level of the OECD countries. Among the adult population aged 25 years and above, about 40% have secondary education as the highest level of education received, 30% have a college diploma, and 25% have higher education[1].

Table 1. Kazakhstan: number of students

	Academic year				
	2014- 2015	2015 - 2016	2016 - 2017	2017-2018	2018-2019
Bachelor's degree	477 387	459 369	477 074	496 209	479 914
Master's degree	32 527	29 882	32 893	34 609	36 720
PhD	2 063	2 288	2 710	3 603	4 937
Total	**511 977**	**491 539**	**512 677**	**534 421**	**521 571**

The Law of the Republic of Kazakhstan "On Education", adopted in 2007, created the legal basis for the implementation of a three-level model. The three-level system of higher and postgraduate education (undergraduate – graduate - doctoral) provides for the movement from general to particular, i.e. firstly, a person receives a broad education in any direction, and then gradually moves to a narrower preparation through educational programs focused on specialization. Such a system, from the point of view of the teaching methodology and ideology, allows students to develop abilities and skills for learning throughout their lives, and acquire

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[1] National report on the state and development of the education system of the Republic of Kazakhstan (for the years of independence), IAC, 2017.

interpersonal communication skills. It provides a fairly clear implementation of the acquisition of knowledge, contributes to the diversification of the methodology and teaching methods at different levels of training.

The three-level system corresponds to the nature of university education, the main purpose of which is to prepare widely educated people who are ready to work in conditions of increasing requirements for professional mobility, who are able to move away from stereotypes and offer new ideas and make decisions of strategic importance. The credit technology was introduced at all levels. The credit technology is cumulative in nature: credits received by students at previous levels of education are transferred up to the next levels of education.

To improve the content of education, it is envisaged to enhance and harmonize state compulsory education standards at all levels, to adjust curricula and programs with the introduction of innovative educational technologies.

In July 2018, the Law of the Republic of Kazakhstan "On Education" was amended and supplemented to expand the academic and administrative independence of universities. They regulate three main areas of university activity: academic, administrative and financial.

In the content of educational programs, the academic freedom of universities has been expanded from 65% to 85%. This is evidenced by the fact that the volume of the compulsory component of the educational program determined by the SCES has decreased from 45% to 15%, that is, up to 85% of the volume of the program and the list of academic disciplines are determined by universities themselves. Universities are empowered to independently develop educational programs that are focused on the needs of the labor market. For accounting and information of these educational programs, a unified register of educational programs through the educational information system has been introduced.

The transition to educational programs that respond flexibly to the needs of the labor market has required the abandonment of the Classifier of Higher Education Specialties. Instead, a the Classifier of training fields for higher and postgraduate education has been introduced, within which universities can develop new educational programs in accordance with the requirements of the labor market.

As was mentioned above, the direction of training is understood as a one-profile group of educational programs, as a result of mastering which a complex of competencies is acquired, which make it possible to solve problems in fields related to the profile of the profession.

As was mentioned above, the direction of training is understood as a one-specialized group of educational programs, as a result of mastering which a complex

of competencies is acquired, which make it possible to solve problems in fields related to the profile of the profession.

The Classifier includes 55 directions of training and 12 fields of education:
1. Pedagogical sciences;
2. Art and humanities;
3. Social sciences, journalism and information;
4. Business, management and law;
5. Natural sciences, mathematics and statistics;
6. Information and communication technologies;
7. Engineering, manufacturing and construction industries;
8. Agriculture and bioresources;
9. Veterinary medicine;
10. Health care and social security (medicine);
11. Services;
12. National security and military affairs.

1.2 Types of higher educational institutions

Nowadays, 131 Kazakhstani universities conduct educational and research activities in the field of higher and postgraduate education, of which 11 are national, 30 state, 14 non-civil, 1 international, 18 corporatized, 56 private and 1 autonomous - Nazarbayev University. The autonomous organization of education is completely autonomous and operates in accordance with the special Law of the Republic of Kazakhstan dated January 19, 2011 "On the status of Nazarbayev University, Nazarbayev Intellectual Schools and Nazarbayev Fund.

Higher and (or) postgraduate education is provided by organizations of higher and (or) postgraduate education of the following types: national research universities, national organizations of higher and (or) postgraduate education, research universities, universities, academies, institutes and equivalent to them (conservatory).

National organization of Higher and (or) Postgraduate Education - an organization of higher and (or) postgraduate education with a special status.

The special status is the status of the organization of higher and (or) postgraduate education, assigned by the President of the Republic of Kazakhstan, for making an outstanding contribution to the education, training and professional development of the person, ensuring a consistently high level of higher and (or) postgraduate education.

The competence of organizations of higher and (or) postgraduate education having a special status includes:

1) To develop and approve educational programs of higher and postgraduate education in accordance with SCES;

2) To carry out educational activities on the basis of independently developed standards for workload, forms and sizes of salary;

3) To develop and approve the rules for admission to the organization of higher and (or) postgraduate education;

4) To develop programs for the development of higher and (or) postgraduate education;

5) Independently determine the content of higher and postgraduate education not lower than the requirements of the relevant SCES;

6) Independently award the degree of Doctor of Philosophy (PhD) and Specialized Doctor;

7) To issue documents of education of their own sample, etc.

The authority of universities with a special status is regulated by a Decree of the Government of the Republic of Kazakhstan "On approval of the Regulation on the special status of organizations of higher and (or) postgraduate education" dated February 14, 2017 No. 66.

National Research University - a research university with a special status.

A research university is a university that implements a five-year development program approved by the Government of the Republic of Kazakhstan and uses the results of its activities to integrate education and science, generate and transfer new knowledge and technologies.

University - an organization of higher and (or) postgraduate education that carries out scientific and pedagogical activities in various fields, training, fundamental and (or) applied research and is a leading scientific and methodological center.

Organization of higher and (or) postgraduate education - a higher educational institution that implements educational programs of higher and (or) postgraduate education and carries out research activities.

Institute - an organization of higher and (or) postgraduate education, carrying out scientific and pedagogical activities, as well as training for professional activities.

Academy - an organization of higher and (or) postgraduate education that carries out scientific and pedagogical activities in a certain field and is a scientific and methodological center.

The right to educational activity arises at a higher educational institution from the date of issuing a license, that is, permission. Licensing of educational activities is carried out in accordance with the Law of the Republic of Kazakhstan "On permissions and notifications" dated on May 16, 2014. Licensing of educational activities is carried out by the authorized body in the field of education - the Ministry of Education and Science.

The criteria and indicators on the basis of which the license is issued are reflected in the Order of the Minister of Education and Science of the Republic of

Kazakhstan dated June 17, 2015 No. 391 "On approval of qualification requirements for educational activities, and a list of documents confirming compliance with them"

1.3 Three-level system of higher and postgraduate education in Kazakhstan

The introduction of a three-level model of education (bachelor – master - PhD), the correlation of its level qualifications with qualification descriptors of cycles in the European structure, contributed to the recognition of Kazakhstani academic degrees abroad, opened up new opportunities for learning and employment. The comparability of systems of higher and postgraduate education allows us to expand the cooperation of universities to create joint and double-degree educational programs.

1.3.1 The first cycle programs (Bachelor's degree)

Among applicants for undergraduate studies, a contest is held for UNT points for studying with educational grants at universities that implement educational programs of the first cycle and have passed accreditation. Educational grants are allocated at the national (Government) and local (regional akimats) level.

Bachelor's degree- a higher education level aimed at training persons with the award of a "Bachelor" degree on the relevant educational program with the obligatory mastering no less than 240 academic credits.

Academic credits express the volume of studying based on specific learning outcomes and workload. The workload is measured by the time required for the student to study the discipline, module or the entire educational program and necessary to achieve the expected learning outcomes.

The full academic workload of one academic year corresponds to 60 academic credits. At the same time, within one semester, a student masters 30 academic credits. One academic credit equals 30 academic hours.

Qualifications awarded in undergraduate studies. In accordance with Articles 35 of the Law of the Republic of Kazakhstan "On Education" (2007), "a student who has passed the final examination on the educational program of higher education shall be awarded a bachelor's degree or a "specialist's qualification".

As noted, the main criterion for completing studies in undergraduate programs is the development no less than 240 academic credits for a student for the entire period of study (Clause 31 of SCES). However, in order to obtain a bachelor's degree, the student must still pass the final examination (paragraph 36 of SCES for the Bachelor's degree). The purpose of the final examination is to evaluate the learning outcomes and key competencies achieved upon completion of the study of the educational program (clause 16 of SCES for the Bachelor's degree). In other

words, the final examination is the final exam, which allows –comprehensively evaluating the achieved learning outcomes.

After passing the "final exam", the student is awarded a "Bachelor's degree" or the appropriate qualification is awarded and a state-issued diploma of higher education with a Diploma Supplement (transcript) is issued. The university additionally provides the graduate with a European Diploma Supplement (Diploma Supplement) for free.

The issue of a Diploma supplement (transcript) is a mandatory procedure. The Diploma Supplement (transcript) reflects the student's academic achievements for the entire period of study. The Diploma Supplement (transcript) contains all the information that gives a general description of a person who has completed higher education: general information about the graduate (personal data, entrance tests, previous education, etc.), information about the curriculum, list of studied disciplines, completed types of professional practice, the form of final examination, the number of academic credits in ECTS.

As noted above, Kazakhstan credit is equated to ECTS. Indeed, one Kazakhstani academic credit corresponds to 30 hours of work by type of academic load at all levels of higher and postgraduate education. At the same time, one ECTS credit corresponds to 25-30 hours of work. However, to simplify calculations, make transfers and recognize learning outcomes, a coefficient of 1 was established in the ratio of Kazakhstan's academic credit and ECTS credits.

Thus, one Kazakhstan academic credit in terms of capacity (volume) is equal to one ECTS.

1.3.2 The second cycle programs (master's degree, residency)

Master's degree - the level of postgraduate education aimed at training persons with the award of a "Master" degree in the relevant educational program with the obligatory development no less than 120 (60/90) academic credits.

Bachelor's graduates may be enrolled in graduate programs immediately after completing the first level of higher education, or people working in companies, organizations, institutions, that is, having experience in practical work.

It should be noted that in accordance with paragraph 41 of SCES for Master's degree, the student, if necessary, masters additional types of training independently on a paid basis. In this regard, the academic credits may be more than what is determined by the educational program.

The criterion for the completeness of the educational process for the preparation of masters:

1) scientific and pedagogical program there shall be of no less than 120 academic credits for the entire period of study, including all types of educational and scientific activities of a graduate student;

Such scope of the educational program testifies to the achieved learning results, allowing the graduate engage in scientific and pedagogical activity.

2)Specialized programs are of 60 academic credits with a term of study of 1 year and 90 academic credits with a term of study of 1.5 years.

The scope of the educational program reflects the learning outcomes that allow the graduate to perform production functions and tasks in the relevant field of professional activity. Therefore, these programs are always specialized. However, a graduate of a specialized magistracy can be allowed to participate in scientific and pedagogical activity if he/she masters additional academic credits of a pedagogical profile (paragraph 36 of SCES). In other words, he/she must demonstrate the results of additional training, allowing him/her to engage in pedagogical work.

Persons who completed studying and final examination are awarded a Master's degree and a state diploma of postgraduate education with Diploma supplement (transcript) is issued.

Thus, persons who have completed studying, similarly to undergraduate studies, must also pass the final examination, which is carried out in the form of writing and defending a Master's thesis. A Master's degree is awarded only after successful defense of a Master's thesis.

A university or a scientific organization additionally issues a graduate with a European Diploma Supplement.

Residency - a form of postgraduate advanced medical education in clinical specialties.

In national medical education, residency is one of the stages in the development of an educational program, the results of which allow its graduate to engage in clinical practice, that is, to work in medical institutions of a stationary type.

In other words, the training of specialists in the residency is carried out in order to provide the healthcare industry with qualified doctors.

Undergraduate students who have completed a one-year internship, or graduate students with clinical training can have possibility to be enrolled in residency.

The criterion for completing the educational process in the residency is the development of a curriculum of 140 academic credits, demonstrating the achievement of learning outcomes, allowing performance of professional functions of a clinical doctor.

The mastering of a professional residency program is a prerequisite for admission to the clinical practice of a stationary type of persons who have received higher medical education in clinical specialties, the list of which is approved by order of the Minister of Health of the Republic of Kazakhstan dated January 30, 2008 No. 27 "On approval of the lists of clinical specialties in internship and residency". In the direction of "Healthcare", residency educational programs indicate a narrow specialization of the doctor.

Training in the residency is carried out in accordance with the state compulsory standard of residency on medical specialties, the standard professional curriculum for medical specialties of residency and the standard curriculum for medical specialties of residency, approved by the order of the acting Minister of Health and Social Development of the Republic of Kazakhstan dated July 31, 2015 No. 647 (registered in the Register of State Registration of Normative Legal Acts Republic of Kazakhstan on September 2, 2015 No. 12007).

The state educational order for training on master's degree and residency programs is approved by the Government of the Republic of Kazakhstan and is placed in organizations of education and science that implement educational programs of postgraduate education and have passed specialized (program) accreditation.

1.3.3 The third cycle programs (PhD)

Doctoral studies are aimed at training persons for scientific, pedagogical and (or) professional activities, with the award of a Doctor of Philosophy (PhD) or a Specialized Doctor with the obligatory development of no less than 180 academic credits[2].

Doctoral studies are carried out only on a full-time basis within the framework of the state educational order and on a paid basis.

A complete transition to PhD studying has been carried out since 2010 (in the experimental mode since 2005, in some universities).

PhD program replaced the pre-existing system of "candidate of science - doctor of science".

It should be noted that the degree of Doctor of Philosophy (PhD)/Specialized Doctor is awarded by a decision of the Committee for control in the field of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan on the basis of appeal by the Dissertation council at the university.

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[2]About the approval of the state compulsory educational standards of all cycles of education.//Order No. 604 of the Minister of education and science of the Republic of Kazakhstan dated October 31, 2018. Registered with the Ministry of justice of the Republic of Kazakhstan dated November 1, 2018, no. 17669.

Since 2019 within the framework of academic independence, the degree of Doctor of Philosophy (PhD)/Specialized doctor is independently awarded by Dissertation councils at national universities with a special status and a state diploma with a Diploma supplement (transcript) is issued. The universities with special status are described in detail in section 1.2.

The study period depending on the specialization and previous education, is to be no less than 3 years.

1.4 The Quality assurance system in Kazakhstan

The national model of the quality assurance system began to take shape in the early 2000s. Initially, the education quality control system and individual elements of the quality assurance system functioned in parallel — the introduction of accreditation, state accreditation, and the creation of a state accreditation agency.

Gradually, the process of transition from a quality control system to a quality assurance system and the formation of a new architecture of a quality assurance system with its institutional foundations and tools began.

It should be noted that the reforms to improve the quality of education are aimed at ensuring the quality of education and teaching in higher education, including the educational environment and related links with research and innovation. In this regard, the educational policy is aimed at ensuring the coherence of all components: structural, institutional and content education.

As you know, the Yerevan Conference of Ministers of Education of the countries participating in the Bologna process adopted Standards and Guidelines for Quality Assurance, divided into three parts:

1) standards and guidelines for internal quality assurance;

2) standards and guidelines for external quality assurance;

3) standards and guidelines for quality assurance agencies.

In order for the quality assurance system to work effectively at the country level, it is very important that all three of these parts be equally implemented in national education.

It is along this path that a national quality system is developing. So, in accordance with the Standard Rules for the Activities of Educational Organizations Implementing Educational Programs of Higher and (or) Postgraduate Education, approved by Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 30, 2018 No. 595, universities shall create a system of internal quality assurance based on international Standards and Guidelines for quality assurance in the European Higher Education Area - ESG. At the same time, paragraph 36 of ESG provides a complete list of internal standards:

1) Policy for quality assurance

2) Design and approval of programmes

3) Student-centered learning, teaching and assessment

4) Student admission, progression, recognition and certification

5) Teaching staff

6) Learning resources and student support

7) Information management

8) Public information

9) On-going monitoring and periodic review of programmes

10) Cyclical external quality assurance.

Regarding the second component of the quality assurance system, we note that in Kazakhstan higher education it is implemented through an accreditation tool.

Functioning national accreditation model includes institutional and specialized, international and national.

Accreditation is based on the principles of voluntariness, independence and payment.

Currently, independent accreditation in Kazakhstan has gained momentum, universities have adapted to external assessment procedures, accreditation bodies have gained some experience, prepared a pool of experts.

Accreditation is carried out according to the standards and procedures adopted by the accreditation organizations themselves, which independently develop accreditation criteria and standards taking into account international requirements, in particular, based on ESG-2015.

Accreditation is carried out by non-profit non-governmental accreditation agencies, which should be included in the Register of the authorized body.

According to the established model, three national registries are maintained in the country:

1) National Register 1, in which the registration of national and foreign accreditation bodies recognized by the authorized body in the field of education is carried out, their competence is to implement the procedure of institutional and specialized accreditation of educational organizations;

2) National Register 2, in which registration of accredited educational organizations is carried out on the basis of certificates of recognized accreditation bodies;

3) National Register 3, which is a list of educational programs of educational organizations, formed on the basis of information from recognized accreditation bodies.

All three registries are maintained by the Ministry of Education and Science of the Republic of Kazakhstan.

National Register 1 acts as a means of regulating the activities of accreditation agencies.

The Ministry of Education and Science of the Republic of Kazakhstan has developed requirements for the accreditation body, the main of which is the entry into the registers and (or) associations of accreditation bodies of OECD member states. In other words, this is the third level of the quality assurance system. This level is at the initial stage of its formation, requirements for accreditation bodies have been developed, the accreditation of which is officially recognized in the country.

Currently, Register 1 includes 11 accreditation agencies: 7 Kazakhstani (IAAR, IQAA, KAZSEE, ARQA, ECAQA, ACBSP, Independent Kazakhstani Center of Accreditation) and 4 foreign agencies from Europe (FIBAA, ASIIN, MusiQuE, ACQUIN).

Kazakhstan Agencies - Independent Agency for Accreditation and Rating (IAAR), Independent Agency for Quality Assurance in Education (IQAA) have full membership in the European Association for Quality Assurance in Higher Education (ENQA) and are included in the European Register of Accreditation Agencies (EQAR).

It is through this Register that an attempt is made to provide the third component of the quality assurance system - standards and guidelines for external quality assurance agencies:

1) quality assurance activities, policies and procedures;
2) official status;
3) independence;
4) thematic analysis;
5) resources;
6) internal quality assurance and professional ethics;
7) cyclic external evaluation of agencies.

However, the standards and guidelines for external quality assurance agencies are not yet available. This work is to be carried out in the future by the transformed Quality Assurance Committee in the field of education and science of the Ministry of Education and Science of the Republic of Kazakhstan.

2 The National Qualifications Frameworks development

A lot of work has been done in Kazakhstan to implement the National qualifications system, which includes NCP, NQF, SQF, and professional standards (Fig.1). The educational programs are developed jointly with employers. One of the key components of the NQS implementation is the implementation of NQF.

In general, the necessity to develop and implement national qualification systems is driven not only by the desire to streamline and structure the levels of qualifications, but more by the desire to reduce the qualitative gap between the demand of the labor market and the supply of education systems. In this regard, one of the main tools that ensure the practical orientation of the educational process and close interaction between the education sector and the labor market is "learning outcomes". Currently, learning outcomes are widely used by EHEA countries in the development of educational programs and for quality assurance.

In Kazakhstan, the learning outcomes are formulated by developers on the basis of the Bloom taxonomy methodology in accordance with the HE-NQF descriptors and the requirements of professional standards, as well as comprehensively discussed at the academic committees of universities with the participation of representatives of student self-government (organization) and the community of employers. At the same time, the university implements a set of measures to monitor and assess the degree of attainability of the indicated learning outcomes by students, equips the material and technical base and attracts the best specialists from the professional fields for teaching and research.

The qualifications framework is understood in the international community as a systematic and level-structured description of qualifications.

Specialized associations and the state body are carrying out a procedure for assessing the levels of graduates in a number of regulated professions (teacher - education, manager - tourism, engineer - ICT, etc.), achieving the stated learning outcomes for educational programs in accordance with professional standards (with HE-NQF descriptors and industry qualifications frameworks) through professional certification and continuing education mechanisms. A number of universities have already integrated well-known professional certification programs (ACCA, CFA, Microsoft Academy, etc.) in their educational programs to increase the competitiveness of their graduates, since their graduates, in addition to their diplomas, receive certificates after successfully passing the examinations of professional associations. Thus, at the national level, the HE-NQF descriptors allow you to structure the mechanism for determining the level of qualification of labor resources through the introduction of transparent mechanisms for measuring and confirming qualifications (skills, competencies and learning outcomes).

List of professions	Levels of qualifications	Levels of qualifications+ professions	Knowledge and skills of a group of professions
NCP	NQF	SQF	PS
List of professions for forecasting and managing the labor market and education system	Students - what and duration of learning. Employers - what to expect	For practical implementation of NQF for specific industries	The main tool of the employer - includes the requirements for education and skills

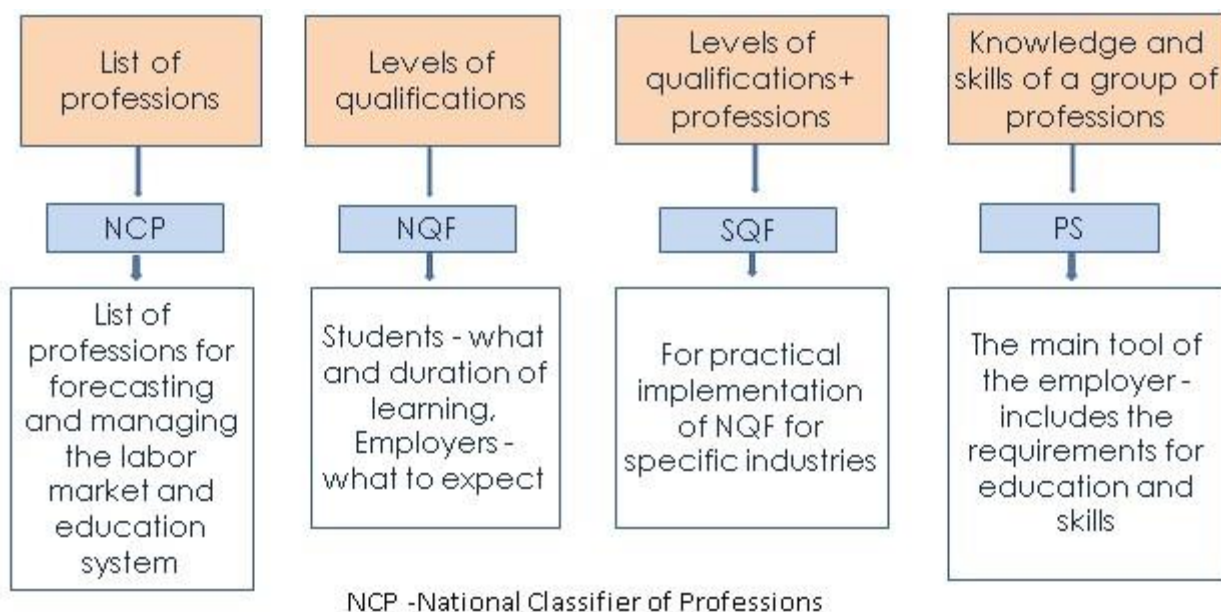NCP -National Classifier of Professions

Figure 1. The Structure of the National qualifications system
of the Republic of Kazakhstan

The mechanism of interaction between bodies and organizations is shown in Figure 2.

The qualifications framework allows you to compare qualifications and diplomas issued in different countries, which is relevant for labour and educational migration.

Kazakhstan was among the first post-Soviet countries to adopt the National Qualifications Framework for Lifelong Learning in 2012 with some specifics regarding the possibility of future determination and implementation of a short cycle in the country. Known that EQF level 5 is linked with Dublin Descriptor Short Cycle Qualification (within or linked to the first cycle). This is not formally part of the Bologna Framework (QF-EHEA). In adopting the Bologna Framework, Ministers agreed that the Framework would include, within national contexts, the possibility of intermediate qualifications. Given that the issue of the full introduction of level 5 was delayed in the country due to the assignment of the applied undergraduate level to the qualification awarded to persons who have mastered post-secondary educational programs, it was decided to go through the self-certification procedure firstly for levels 6-8, i.e. HE-NQF.

In 2019 NQF has been redesigned in a new variant and all descriptors of 5 – 8 levels are redefined in HE-NQF form with accordance of the European Qualifications framework for Lifelong Learning. For example, at level 8 there are descriptors for the postdoctoral programs, when postdoc contain only research component with measurable research outputs (some HEIs today have

postdoc – Al-Farabi KazNU), as self-defined by academic freedom of the universities.

A key aspect of developing and improving the national qualifications framework and the qualifications system as a whole is the involvement of all stakeholders

The work on the development of the National qualification system of Kazakhstan is also underway in the framework of the partnership agreement between the Government of the Republic of Kazakhstan and the International Bank for Reconstruction and Development project "Development of labor skills and promoting job places", which oriented for some chosen professions. In general, our country take a guide to the formation of a highly educated nation with an increase in the general population with a higher education with a wide profile, which will generate ideas and initiatives to create new jobs (including high-tech companies), if necessary, they can retrain in a short time. For example, in OECD countries, ensuring equal access to education is the prerogative of the state. Studies show that the accessibility of higher education to the masses gives economic and social benefits to both society as a whole and its individual citizens. At the individual level, people with higher education are better at monitoring their health and are able to significantly increase their income, they have a higher level of satisfaction with life and average life expectancy.

To overcome the existing fragmentation in the certification system, the Labor code of the Republic of Kazakhstan provides for a new mechanism from January 1, 2021 by introducing the concept of a regulated profession as a professional activity that requires confirmation of compatibility and qualification. According to which the compatibility confirmation and qualifications awarding for regulated professions are carried out by organizations accredited in accordance with the legislation of the Republic of Kazakhstan. In this case, the procedure for confirming and awarding for regulated professions is determined by the authorized state bodies of the relevant fields of activity. The development and revision of the list (register) of regulated professions is carried out by the authorized state body for labor together with the authorized state bodies of the relevant fields of activity and is approved by the Republican Tripartite Commission on social partnership and regulation of social and labor relations. One of the pilot projects in the field of education was National qualification test (NQT) for secondary school teachers on the basis of the professional standard "Teacher". As a result of passing the NQT, teachers receive salary allowances.

A further significant shift in the implementation of the principles of lifelong learning through the NQS is the introduction of a new mechanism for taking into account the results of non-formal education in the Law "About education" in 2018, through the approval of the Rules for recognizing learning results obtained by adults through non-formal education provided by

organizations included in the list of recognized organizations providing non-formal education, as well as determining the procedure for recognizing organizations providing non-formal education and forming a list of recognized organizations, providing non-formal education, where the following concepts are disclosed and further defined:

- formal education - a type of education carried out by educational organizations that have a license (by decision of MES)to conduct educational activities on educational programs of technical and professional education, as well as higher and postgraduate education, and is accompanied by the issuance of a document confirming the learning outcomes;
- non-formal adult education - a type of education provided by organizations that provide educational services that do not take into account the place, time and form of learning, and is accompanied by the issuance of a document confirming the learning outcomes;
- recognition of organizations that provide non-formal education - procedure for confirming the authority of organizations that provide educational services for non-formal education;
- list of recognized organizations providing non-formal education - a list of national and foreign organizations providing non-formal education formed by the authorized body in the field of education;

It is expected that the full implementation of these two mechanisms will allow creating a system of qualifications that is focused on the needs of employers, ensuring appropriate monitoring of certification processes, development of professional standards and qualification categories, according to international experience (Germany, Japan, USA, etc.).

In Kazakhstan as a form of informal learning approach our students (learners) have opportunity to self learning by MOOC platforms (exist two national project - The National Open Education Platform, http://moocs.kzand The Open University of Kazakhstan, http://openu.kz) in worldwide levels (as Coursera, Edx, Future learn) and after getting certificate they can recognise in own university and credit awarded.

Main documents regulating the National Qualifications System:
- The Labor code of the Republic of Kazakhstan No. 414-V dated November 23, 2015
- The Law of the Republic of Kazakhstan No. 319-III of July 27, 2007 "About education"
- The Law of the Republic of Kazakhstan on the National chamber of entrepreneurs No. 129 - V dated July 4, 2013
- The Regulations on the Ministry of labor and social protection of the population of the Republic of Kazakhstan

- The Regulations on the Ministry of education and science of the Republic of Kazakhstan
- The Rules for the development, implementation, replacement and revision of professional standards (order No. 1035 of the Ministry of healthcare and social protection of the Republic of Kazakhstan dated December 28, 2018)
- The National qualifications framework of the Republic of Kazakhstan (NQF) (Protocol of the Republican Trilateral Commission No. 1 dated March 16, 2016)
- The Guidelines for the development and design of Sectoral qualifications frameworks (order No. 25 of the MLSPP of the Republic of Kazakhstan dated January 18, 2019)
- The Guidelines for the development and design of professional standards (order of the MLSPP of the Republic of Kazakhstan dated March 26, 2018) ☐The National classification of LA (order No. 130-od of the Committee of technical regulation and metrology of the Ministry of industry and infrastructural development of the Republic of Kazakhstan dated May 11, 2017), entered into force on January 1, 2018
- The General Classification of economic activities (order of the Committee of technical regulation and metrology of the Ministry of industry and infrastructural development of the Republic of Kazakhstan No. 683-od dated December 14, 2007).

2.1. The progress on the High Education National Qualification Framework

In general the HE-NQFis an integral part of the National qualification system. The Plan for the staged development of the National Qualifications System was approved by the Government of the Republic of Kazakhstan resolution No. 616 dated June 18, 2013[3]. The Plan was for 2013-2015 and included a set of measures to develop the system of qualifications, develop professional standards and assess professional readiness and confirm compatibility with the qualifications of specialists.

The aim of the Plan was to create conditions for the development of the National qualifications system.

The objectives of the Plan included:

1.   Ordering and bringing into a single system the existing professions, positions, and qualifications in accordance with the requirements for the labor functions of modern production.

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[3]The Plan for the staged development of the National Qualifications System
https://online.zakon.kz/Document/?doc_id=31408518&#pos=108;-57

2. Increasing motivation and building optimal trajectories of learning and career growth of citizens.

3. Defining the main mechanisms for introducing a lifelong learning system to our country for promoting a knowledge-based society.

4. Development of approaches for determining the level of qualification of labor resources by the introduction of transparent mechanisms for measuring and confirming qualifications (skills, competencies and learning outcomes).

2.2 The stages of the NQF development

The First stage

The National Qualifications framework for Lifelong Learning was developed by an interdepartmental group and approved by Joint order No. 373 of the Minister of labor and social protection of population of the Republic of Kazakhstan dated September 24, 2012 and No. 444 of the Minister of education and science of the Republic of Kazakhstan dated September 28, 2012.

The recommendations of the Working group on the Bologna process and the advice of foreign experts were used in the development of the National qualifications framework.

The first version of the NQF was sent to Stephen Adam, an expert on the Bologna process from the UK. His report contained the first comments that influenced the modernization of NQF in the following years.

By the order of the Minister of education and science of the Republic of Kazakhstan dated March 28, 2013, the composition of the interdepartmental working group on self-certification was approved. The group was instructed to develop an Action plan for self-certification by may 25, 2013.

The working group on self-certification included representatives of the Ministry and other state bodies, subordinate organizations and universities.

The preparing work on the Report on the self-certification of the National Qualifications Framework began in 2013. In total, more than 70 events were held to discuss the NQF.

On September 19, 2013, the Department of higher and postgraduate education together with the Bologna process and academic mobility Center held an international conference "Self-certification of the National Qualifications Framework of Kazakhstan in the context of social modernization" with the participation of international experts in the field of education.

The purpose of the conference was to exchange experience with the EHEA countries on the process of self-certification and strategic development of the qualifications framework, as well as to develop recommendations for the further development of the national qualifications framework in Kazakhstan.

The conference included:

- discussion of the main directions of implementation of the National qualifications framework in Kazakhstan
- defining priorities for the development of the national qualification system of Kazakhstan in the framework of the Bologna process
- coverage of the main provisions of verification and self-certification of the qualification framework in Kazakhstan
- development of recommendations for the implementation of a mechanism for assessing the quality of professional learning and confirming compatibility with the qualifications of specialists
- development of recommendations for the development of a lifelong learning system as the main mechanism for the formation of a knowledge-based society
- development of recommendations for the development of a system of independent assessment of professional readiness and confirmation of compatibility with the qualifications of specialists
- informing universities about the formation of the national qualification system and the implementation of the qualification framework.

Also, in order to bring the labor market and education closer together, the national seminar was held on June 8-9, 2015 on the theme "National qualifications framework: from architecture methodology to application practice" for higher education institutions. The organizers were the Ministry of education and science of the Republic of Kazakhstan together with the National office of the Erasmus+ program in Kazakhstan. Foreign expert Brian Maguire, Director of QA, QQI, Ireland, took part in the national seminar and acted as a key speaker.

As part of this event, master classes were held by members of National Team of Higher education reform experts (HEREs) in Kazakhstan.

During the national seminar, priority areas of higher education modernization, exchange of innovative approaches to providing educational activities, development of qualification frameworks and professional standards in accordance with modern European approaches were discussed.

The Ministry of education and science of the Republic of Kazakhstan with the support of the Bologna process and academic mobility Center conducted:

- Summer schools "Structural reforms in higher education and tools of the Bologna process" (2013), "Education Management: university management" (2015);
- Annual national training seminar "Academic mobility: application and development of tools" (2013-2015);
- Conference on quality assurance in higher education (2013);
- Conference on self-certification of NQF (2013);

- Conference on internationalization of higher education in Kazakhstan (2013);
- Conference within the framework of the co-chairmanship of the Republic of Kazakhstan in the Bologna process (2014);
- Seminars on learning outcomes and modular educational programs; on the social significance and accessibility of education in Kazakhstan; on the methodology for developing joint educational programs (2013-2014); "Mechanisms for the internationalization of higher education: academic mobility, joint educational programs and international cooperation" (2016), "Problems of implementing ECTS in the educational process" (2016).

In addition, Kazakhstan participated in the implementation of the EU project "Central Asian education platform". The aim of the project is to expand cooperation between the European Union and Central Asia, improve regional cooperation between Central Asian countries, and promote reforms in both higher education and technical and vocational education.

Within the framework of this project, a number of activities were also carried out to support the development of the National qualifications framework in the Republic of Kazakhstan. Experts from technical and professional education, higher and postgraduate education, representatives of employers and other stakeholders were invited to participate in seminars and conferences.

Workshop on the National qualifications framework was held on 5 December 2016.

It was attended by foreign experts: Baiba Ramina, Director of the Academic Information Center of Latvia; Claudio Dondi, CAEP expert on education and training; Eva Khmelecka, Institute of Educational research, Poland; Christian Wagner, head of the Central Asian education platform.

It was discussed:
- Improvement of the National qualification system of Kazakhstan;
- International experience in developing national, sector qualifications frameworks and professional standards;
- Process of self-certification of the National Qualifications Framework of Kazakhstan with the European Qualifications Framework and the overarching EHEA Qualifications Framework.

Kazakhstan also took part in the following events within the framework of the project: Regional conference "Strengthening cooperation in higher education between Central Asian countries and the European Union", Krakow, 16-18 November 2016;
- first meeting of the Peer learning group on NQF in Istanbul, February 2017;
- second meeting of the group, Bishkek, April 2017;
- seminar on quality assurance and accreditation, Dushanbe, May 2017.

Kazakhstan, as a participant in the Bologna process, participates in meetings of BFUG, BFUG working groups, and Ministers' conferences of EHEA countries that are dedicated to NQF.

NQF issues were also discussed at various meetings of educational and methodological associations at universities.

For a number of objective reasons, the Self-certification Report was not prepared at this stage.

The Second stage

In 2017, the Department of higher and postgraduate education of MES commissioned BPAMC to study the materials of the carried-out work and prepare a draft report on the self-certification. As a result, a draft report using the descriptors of the 6, 7, 8 NQF levels was prepared and sent for examination to foreign experts: Eva Khmelecka from Poland and Volker Gemlich from Germany. Foreign experts made a number of fundamental comments and drew attention to the discrepancy between the descriptors of the 6-8 levels and the Dublin descriptors. Main remarks:

1. Level descriptors are not formulated in the form of learning outcomes that the graduate has.

2. The progress of descriptors from level to level is not tracked, and is not designed accordingly.

3. The emphasis in the descriptors of professional activities.
It became obvious that a radical revision of the NQF descriptors was required.

The Third stage

An analysis conducted in 2018 by EY also showed that the National qualifications framework needs to be revised. They developed a new concept and roadmap for the modernization of NQF until 2025 and recommended the creation of a special state body for qualifications under the Government.

In July 2019, for the first time, the Government created the National Council for qualifications and, most importantly, a permanent working body - the Project office for the development of the social and labor sphere. A Roadmap for the implementation of the National qualifications system in Kazakhstan until 2025 has been developed. The main task of the Council is to develop proposals for the development of the main directions for the development of the National qualifications system to strengthen the link between the labor market and the training system, as well as the creation and development of a system of certification and recognition of qualifications.

The Ministry of education and science of Kazakhstan, taking into account the recommendations of the Paris conference for acceleration of implementation of self-certification of national qualifications frameworks and the disparity between the descriptors of levels 6-8 with descriptors of the

Bologna framework, took the decision to develop a separate National qualifications framework for higher education –HE NQF.

By the order No. 152 dated 17.04.2019, a new interdepartmental working group was created. The group includes representatives of the Ministry of education and science, the Ministry of labor and social protection of the population, the National chamber of entrepreneurs "Atameken", industry associations and higher education institutions (Annex 3).

This working group has developed a separate National qualifications framework for higher education (hereinafter referred to as HE-NQF), which allows classify qualifications obtained in higher and postgraduate education, and is compataible to the Overarching Qualifications framework for the European Higher Education Area.

HE-NQF project was presented at the meeting of Working group A on self-certification in Prague (June 3, 2019). On 21 October 2019, HE-NQF was presented to an expert from Germany, Volker Gehmlich.

On November 27, 2019, the NQF was reviewed and approved at the meeting of the industry commission of the MES RK on social partnership and regulation of social and labor relations in the field of education and science.

2.3 The self-certification of the HE-NQF with QF-EHEA

The accessibility of information
The implementation of the HE-NQF oriented to develop a system of levels of learning outcomes and then determine how to link existing degrees, and then implement changes in the existing system, taking into account the identification of possible discrepancies (gaps or significant deviations) from practices in other countries. Next, government is planning to create a Register of qualifications and a portal to provide the most complete and accessible information about the qualifications system in the Republic of Kazakhstan.

At the moment, the tab with updates on the National qualifications system is available on the website of the National Chamber of entrepreneurs "Atameken": https://atameken.kz/ru/services/16

"Atameken" provides information support for other components of the NQS - sector qualifications framework and professional standards. The site contains guidelines for the development of SQF and professional standards, analytical materials, registers of approved SQF and professional standards.

3. The compatibility of descriptors of HE-NQF and QF-EHEA

The following documents were used in the development of HE NQF descriptors:
-       Dublin descriptors developed as part of the Bologna process;
-       Bloom's taxonomy - a hierarchical system of six levels of knowledge based on the ideas of the American psychologist Benjamin Bloom and his colleagues;
-       Recommendations of the Council of the European Union dated 22 may 2017 on the European qualifications framework for lifelong learning.

Higher and postgraduate education in Kazakhstan belongs to 6-8 levels of the National Qualifications framework for Lifelong Learning (Fig.2).
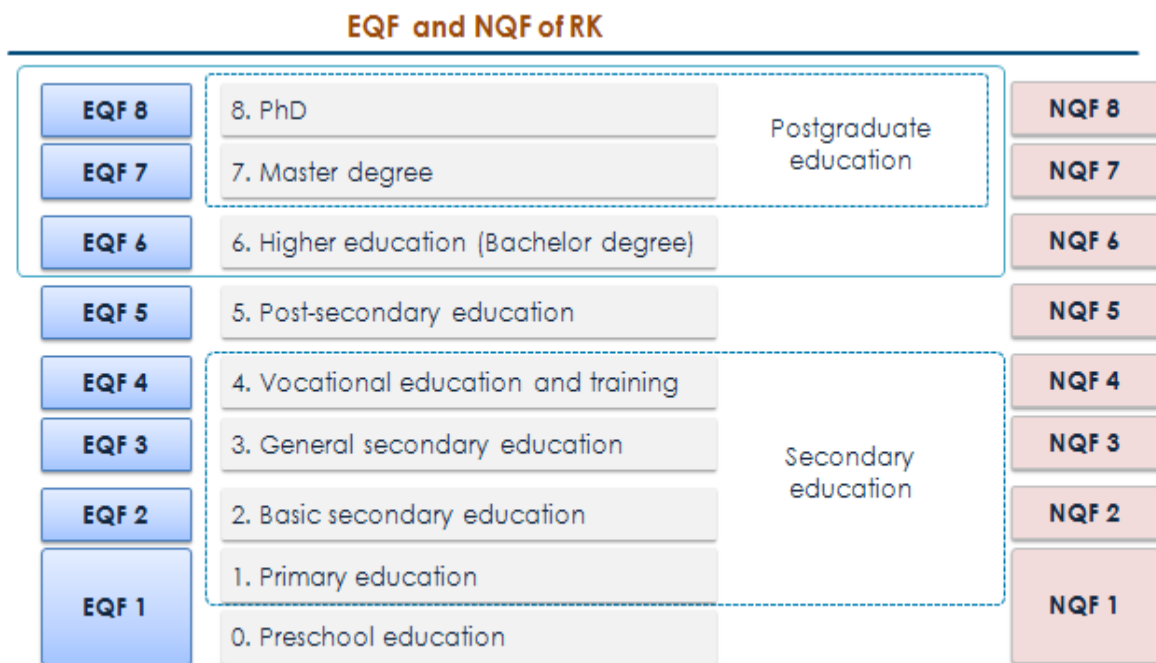

.Figure 2. Compatibility of EQF levels with NQF of Kazakhstan

The fifth level is not included in the higher education system, so this report does not considere it (Fig.3). The educational programs of post-secondary education at the fifth level are aimed at preparing applied bachelors from citizens with secondary education (general secondary or technical and vocational). Post-secondary education programs provide for the study of technical and vocational education programs integrated into the educational modules with the inclusion of individual modules or disciplines of bachelor's educational programs.

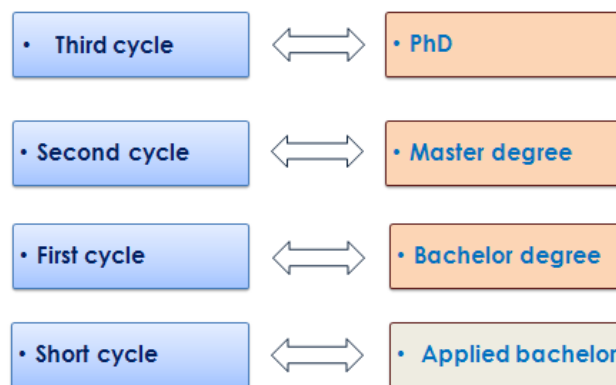| Third cycle	⟺	PhD
Second cycle	⟺	Master degree
First cycle	⟺	Bachelor degree
Short cycle	⟺	Applied bachelor

Figure 3. Compatibility of HE-NQF levels with QF-EHEA

HE-NQF descriptors are divided into categories (knowledge, skills, responsibility, and autonomy) and levels.

Tables 2,3,4 demonstrate how HE-NQF descriptors are compatible to those of QF-EHEA.

Table 2. Compatibility of descriptors HE-NQF with the QF-EHEA descriptors (the first cycle)

	HE-NQF descriptors Graduates completed the cycle	QF-EHEA descriptors Qualifications that signify completion of the first cycle are awarded to students who:	Credits
Knowledge	demonstrated - knowledge and understanding of facts, phenomena, theories and complex dependences between them in the field of study; - knowledge and understanding of research methods in the field of study; - knowledge of legal, social and cultural norms at the interpersonal interaction and professional activity.		
Skills	are able to - apply theoretical and practical knowledge to address learning, practical and professional issues in the field of study; - carry out selection and interpretation of significant data to pass judgment on social, scientific and ethical issues; - create a product in the professional field on the basis of modern knowledge and best practices.		
Responsibility and autonomy	are ready to - enter into interaction in social, academic and professional field to discuss current issues; - independently develop, agree, make decisions of professional and social issues and be responsible for them; - critically evaluate one's own knowledge and behavior for further personal and professional development; - form one's own social self-identification to value perception of society, country and international community; - be able to continue education with a significant level of autonomy.		

Table 3. Compatibility of descriptors HE-NQF with the QF-EHEA descriptors (the second cycle)

	HE-NQF descriptors Graduates completed the cycle	QF-EHEA descriptors Qualifications that signify completion of the second cycle are awarded to students who:	Credits
Knowledge	demonstrated - knowledge of new and latest scientific concepts and theories to solve issues occurred in the field of study and interdisciplinary context; - knowledge of research methodology in the field of study; - design-thinking		
Skills	are able to - apply theoretical and practical knowledge to address complex non-standard scientific, social and ethical issues in the interdisciplinary context; - critically evaluate the latest developments in the scientific and professional field of study, consider an opportunity of their application in the context of the conducted researches; - make decisions in new and unfamiliar contexts on the basis of synthesis and integration of scientific knowledge and methodology; - carry out own scientific researches in the context of the latest theories, methodology and technology for creation innovative product.		
Responsibility and autonomy	are ready to - generate concepts and independently make effective decisions and optimal solutions in non-standard situation; - assume civil liability for the received scientific results and their social/economic effect; - inform on results to experts and non-experts, argue it at the scientific debates; - be able to work in team and perform corporate management; - critically evaluate own knowledge and actions, be able to continue education with high level of autonomy.		

Table 4. Compatibility of descriptors HE-NQF with the QF-EHEA descriptors (the third cycle)

	HE-NQF descriptors Graduates completed the cycle	QF-EHEA descriptors Qualifications that signify completion of the third cycle are awarded to students who:	Credits
Knowledge	demonstrated - profound systemic knowledge, vision of current problems in the field of study and interdisciplinary context; - orientation in a variety of methodological and technological ways to address the essential tasks in the field of research and (or) innovations.		
Skills	are able to - carry out ingenious researches contributing to the scientific field and extending its boundaries; - substantiate the urgency of the problem, structure its research with a scientific integrity; - generate new knowledge in the form justified and reliable results of doctoral research; - develop innovative programs of sector and interdisciplinary researches on the basis of synthesis of new and the latest concepts, research approaches, challenges.		
Responsibility and autonomy	are ready to - critically analyze, evaluate and synthesize new and complex scientific concepts and provide management of their realization; - represent own position with arguments in the scientific publications and discussions to the representatives of the scientific community; - facilitate within academic and professional contexts to the technological, social, cultural development of region and country; - find optimal solutions in complex, nonstandard situations; - demonstrate autonomy, scientific and professional perfection and commitment to creation of new concepts.		

4. The Analysis of the National Qualifications Framework for higher education: compliance with criteria and self-certification procedures with QFEHEA

4.1 The compatibility criteria of HE-NQF with QF-EHEA

Criterion 1. *The National qualifications framework for higher education and the body / bodies responsible for its development are determined by the national Ministry responsible for higher education.*

The National qualifications framework for the higher education was developed by an interdepartmental group (Annex 3) and approved at the meeting of the industry Commission of the MES of Kazakhstan on social partnership and regulation of social and labor relations in the field of education and science on November 27, 2019 No. 27[4].

The recommendations of the working group on the Bologna process and the advice of foreign experts were used in the development of the National qualifications framework.

For example, Volker Gehmlich drew attention to the fact that descriptors of levels 6–8 of NQF emphasize professional activity and do not allow the inclusion of non-formal and informal learning.

Eva Khmeletska noted that not all descriptors are described in the language of learning outcomes; progress from level to level is not traced. There are questions about the glossary.

The NQF for lifelong learning levels 6 - to 8's descriptors were used in the version of the report sent to above mentioned experts.

Given the seriousness of the experts' comments, it was decided to radically revise these descriptors and separate the qualifications framework for higher education.

Significant revision was made on the basis of the comments received from the experts.

In July 2019, the Government created the National Council for qualifications and, a permanent working body - the Project office for the development of the social and labor sphere. A Roadmap for the implementation of the National qualifications system in Kazakhstan until 2025 has been developed. The main task of the Council is to propose main directions for the development of the National qualifications system to strengthen the link between the labor market and the training system, as

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[4]The industry commission is a body to ensure the coordination of interests of social partners through consultations and negotiations, which are drawn up by relevant decisions. The participants of the industry commissions are authorized representatives of the relevant executive bodies, representatives of employers and workers. The personal composition of the participants in the commissions is formed independently by each side of the social partnership. The composition of the commission is approved for a period of 3 years. The coordinator of the industry commission shall be appointed by a joint decision of the parties.

well as the creation and development of a system of certification and recognition of qualifications.

In accordance with the roadmap for updating NQF the national qualifications framework for lifelong learning will also be updated by 2025. And HE-NQF descriptors will be used for the top three levels.

Since this report has compatibility issues with the QF-EHEA, we consider it as sufficient analysis on the compatibility of HE-NQF descriptors.

Criterion 2. *There is a clear and obvious link between qualifications in the HE-NQF and qualification descriptors in the QF EHEA.*

The levels of the National qualifications framework for higher education and their descriptors correspond to 1-3 cycles of the EHEA qualifications framework. The analysis of level compatibility is presented in Chapter 3[5].Learning outcomes are based on Bloom's main taxonomy. Given their development from the first to the third cycle. (Annex 1 and 2).

Criterion 3.*The national framework and qualifications are based on learning outcomes, qualifications are linked to ECTS credits or an ECTS-compatible system.*

The Rules for the organization of the educational process on credit technology (October 12, 2018) provide that universities develop educational programs based on learning outcomes in all cycles. It is determined that the workload of 1 Kazakhstan academic credit (30 academic hours) corresponds to 1 ECTS credit[6].

As of 2019, all universities use the credit system of education for all 3 cycles - Bachelor's, Master's and PhD.

Criterion 4. *The procedures for including qualifications in the National framework are transparent.*

The qualifications of technical and professional, postsecondary education are included in the Classifier of specialties and qualifications for technical and vocational, post-secondary education, approved by order of the Minister of education and science of the Republic of Kazakhstan dated September 27, 2018 no. 500.

As for higher and postgraduate education, on March 20, 2009, **the Classifier of specialties of higher and postgraduate education of the Republic of Kazakhstan** was enforced by the Order No. 131-od of the Committee for technical regulation of the Ministry of industry and trade of the Republic of Kazakhstan.

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[5]The compatibility was carried out by a working group, the composition of which is presented in Appendix 3. It was taken into account that HE-NQF descriptors should be based on five main learning outcomes: knowledge and understanding, practical use of knowledge and understanding ability, ability to make judgments, evaluate ideas and draw conclusions , communication skills, training skills.

[6]The educational process in all universities of Kazakhstan is regulated by the Rules for the organization of the educational process on credit technology of education. In non-civilian universities, the workload of each academic discipline is also measured in credits.http://adilet.zan.kz/rus/docs/V1100006976

However, the inclusion of new qualifications in this classifier was complicated by a number of administrative procedures. This classifier is currently canceled.

In this regard, in order to remove administrative barriers and increase the transparency of the process of introducing new qualifications, the Classifier of or higher and postgraduate education was introduced in October 2018 (order No. 569 of the Minister of education and science of the Republic of Kazakhstan dated October 13, 2018). Now the qualifications of higher and postgraduate education are determined by the educational programs included in the Register of Educational Programs.

According to the amendments to the Law of the Republic of Kazakhstan "About education" dated July 4, 2018, the development and approval of educational programs of higher and postgraduate education is carried out by universities independently in accordance with SCES. All educational programs are included into the Register of educational programs. And the program inclusion procedure of the Register is transparent and is carried out through the educational portal of the Unified system of management of higher education (USMHE)[7].

The Classifier was developed in order to:
- create a system of higher and postgraduate education that is open to society and every citizen, that reflects all types and spheres of activity;
- create a regulatory framework for the development of state compulsory standards for higher and postgraduate education;
- promote the improvement of the quality and development of education in accordance with the achievements of science, technology and culture with the needs of the labour market and the population;
- create conditions for the formation of an interstate educational space;
- promote the development and implementation of unified educational technologies in a variety of professions, occupations and activities;
- create conditions for calculating the needs of all sectors of the economy of the Republic for specialists with higher and postgraduate education;
- analysis in the field of higher and postgraduate education in connection with demand and supply in the labor market in accordance with the Classifier of professions.

The objective is classification of academic degrees by the levels of education regardless of ownership and departmental subordination.

The Classifier of studies directions for higher and postgraduate education allows for professional development, as well as transfer between different qualifications.

The obtained qualifications are included in the sector qualifications framework (SQF), which based on the NQF descriptors. The development and

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[7] USMHE system is organized by the Ministry of Education and Science of the Republic of Kazakhstan and contains data on state and private civilian universities on the contingent of students, graduates, teaching staff, student movement, orders, curricula, etc.

revision of SQF is carried out by the authorized state bodies and associations of employers of the relevant fields and approved by the industry commissions for social partnership and regulation of social and labor relations.

The process for adopting SQF involves a multi-stage process of agreement with all interested parties. Typically, SQF project is posted on "Atameken" website for discussion. SQF project developed by state bodies and employers' associations is discussed in the professional community (associations of employers and employees, Industry councils) and is being finalized taking into account the results of the discussion.

The SQF is coordinated with employers 'and employees' associations, Industry councils (with interested state bodies, if necessary) and submitted for approval to the authorized state body.

Criterion 5. *The National quality assurance system of higher education linked to the National qualifications framework and in line with the Berlin communiqué and any subsequent communiqué adopted by the Ministers within the Bologna process.*

Kazakhstan has developed a comprehensive, multi-level national system for assessing the quality of education, which includes external and internal control of the quality of education. Since 2011, the functions of assessing the quality of education in Kazakhstan have been transferred to an independent environment. In this regard, the independent accreditation procedure is carried out in accordance with the standards of institutional and specialized accreditation agreed with the European Standards and Guidelines for Quality Assurance (ESG). Currently, Kazakhstan accreditation bodies have made changes to their existing accreditation standards in accordance with the new version of ESG.

There are the Rules of recognition of accreditation bodies, including foreign ones, and formation of the register of recognized accreditation bodies, accredited educational organizations and educational programs dated November 1, 2016 No. 629.

Kazakhstan Agencies - Independent Agency for Accreditation and Rating (IAAR), Independent Agency for Quality Assurance in Education (IQAA) have full membership in the European Association for Quality Assurance in Higher Education (ENQA) and are included in the European Register of Accreditation Agencies (EQAR). Their feedback on this report is in appendices 8 and 9.

Criterion 6. *The National Qualifications Framework and its reference with the European framework are noted in all Diploma Supplements.*

Since 2019, in accordance with paragraphs 37 and 64 of the State compulsory standards of higher and postgraduate education, approved by the order of the Minister of education and science of the Republic of Kazakhstan dated October 31, 2018, No. 604, all universities are required to issue the Diploma Supplement for free. The Diploma Supplement forms an important part of the development of the

European Higher Education Area (EHEA). This document promotes the discharge of obligations assumed by Kazakhstan within the limits of the Law of the Republic of Kazakhstan 'On ratification of the Convention on the Recognition of Qualifications concerning Higher Education in the European Region' (Lisbon, 1997) and the Bologna process implementation. Diploma Supplement is an additional document standardised at European level and issued in English, which describes in simple terms the course and qualification, their content and their level.

Criterion 7.*The responsibilities of the involved parties with respect to the national framework are clearly defined and made public.*

According to the 2016 Labor code "the development of NQF is carried out by the ministries of labor and education, and is approved by the Republican Commission on social partnership and regulation of social and labor relations". The members of the Republican Commission are representatives of the Government of the Republic of Kazakhstan (7 people), the Republican associations of employees (7 people) and the Republican associations of employers (7 people)[8]".

Ministries responsible for the development and implementation of NQF are the MES and MLSPP.

The National chamber of entrepreneurs of Kazakhstan "Atameken", according to the Labor code, from 1 January 2016, approves the professional standards developed by industry associations of employers.

NQF as well as regulatory documents and guidelines for the development and approval of professional standards, a list of approved sector qualification frameworks, projects and initiative projects of professional standards, the approved professional standards, the Register of professional standards, and the Register of certification centers are available on the website of "Atameken" https://atameken.kz/ru/services/16

The Register of educational programs is available on the website of the Bologna process and academic mobility Center :https://enic-kazakhstan.kz/en

4.2 The Procedures for verifying the compatibility of the National Qualifications Framework with the EHEA Qualifications Framework

The Procedures for verifying the compatibility of the National Qualifications Framework with the EHEA Qualifications Framework were discussed at the

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[8]The Republican Commission is a body to ensure the coordination of interests of social partners through consultations and negotiations, which are drawn up by relevant decisions. The participants of the republican commission are authorized representatives of the Government of the Republic of Kazakhstan, republican associations of workers and republican associations of employers. The personal composition of the participants in the commissions is formed independently by each side of the social partnership for a period of three years. All participants in the social partnership parties have equal powers.

meeting of the working group on qualification structures in Bergen in 2005 and adopted at the meeting of Ministers of higher education in London in 2007.

Procedure 1.*The competent national body/bodies shall self-certify the compatibility of the national framework with the European framework.*
Accepting the recommendation of the Working group on the NQF self-certification the MES RK has recognized the compatibility of HE-NQF with QFEHEA. Minister of Education and Science of the Republic of Kazakhstan officially confirms compatibility of HE-NQF with QF-EHEA (Annex 7).

Procedure 2. *The self-certification process shall include the stated agreement of the quality assurance bodies of the country in question recognised through the Bologna Process.*
Kazakhstan agencies - the Independent Agency for Accreditation and Rating (IAAR) and The Independent Agency for Quality Assurance in Education (IQAA) have full membership in ENQA.
The Agencies use the 2015 European Standards and Guidelines for Quality Assurance (ESG).
In general, Kazakhstan's education system meets ESG requirements. All Kazakhstan universities undergo self-assessment in preparation for accreditation of universities and educational programs. In most Kazakhstan universities, development strategies include measures to improve quality.
Accreditation agencies IAAR and IQAA participated in the self-certification process (in the discussion and development of the report) and officially confirm compliance with all established requirements (Annex 8,9).

Procedure 3. *The self-certification process shall involve international experts.*
During the preparation of the report and the self-certification procedure, the following international experts assisted at several stages: At the first stage in 2017, comments were received with the first version of the report based on descriptors of levels 6-8 of the NQF from Baiba Ramina, Director of the Academic Information center, Latvia; Volker Gehmlich, Osnabruck University of Applied Sciences, Germany; Eva Khmeletska, Institute for Educational Research, Poland. They noted that it is necessary to describe level descriptors in the language of learning outcomes; academic and professional communities insufficiently involved in the process of developing and implementing NQF; an excessive emphasis has been placed in the NQF descriptors on professional activities, while QF-EHEA involves learning.
A substantially revised version of the report of HE-NQF was presented in 2020 at 2 meetings of working group A on self-certification and ECTS of the Bologna process (co-chairs: Carita Blomqvist - Finland; Lucie Troyanova - Czech Republic). The report is also sent to experts: Baiba Ramina, Director of the

Academic Information center, Latvia; Volker Gemhlich, Osnabruck University of Applied Sciences, Germany. Their review reports are attached (Annexes 10, 11).

Procedure 4.*The self-certification and the evidence supporting it shall address separately each of the criteria established and shall be published*

Data for each of the established criteria and a self-certification report are presented and published on the BPAMC website https://enic-kazakhstan.kz/en/analytical_materials/nacionalnaya-ramka-kvalifikacii-vysshego-obrazovaniya-1

Procedure 5. *The ENIC/NARIC network shall maintain a public listing of States that have completed the self-certification process*

ENIC/NARIC networks maintain a public list of States that have confirmed the completion of the self-certification process (www.enic-naric.net).

The report is available on the BPAMC website (https://enic-kazakhstan.kz/en/analytical_materials/nacionalnaya-ramka-kvalifikacii-vysshego-obrazovaniya-1).

The report submitted by BFUG will be published in the public domain and will be made available to the ENIC/NARIC network.

The report adopted by the Working group of the Bologna process will be published in the public domain, and data will be provided to the ENIC/NARIC network.

Procedure 6. *The completion of the self-certification process shall be noted on Diploma Supplements issued subsequently by showing the link between the national framework and the European framework.*

As soon as the self-certification process is completed, this information will be officially included in the Diploma Supplement.

The National Qualification Framework for Higher Education (HE-NQF)

Cycles	Knowledge	Skills	Responsibility and autonomy	Credits
	The Graduates, completed the cycle			
The first (Bachelor's)	*demonstrated* - knowledge and understanding of facts, phenomena, theories and complex dependences between them in the field of study; - knowledge and understanding of research methods in the field of study; - knowledge of legal, social and cultural norms at the interpersonal interaction and professional activity.	*are able to* - apply theoretical and practical knowledge to address learning, practical and professional issues in the field of study; - carry out selection and interpretation of significant data to pass judgment on social, scientific and ethical issues; - create a product in the professional field on the basis of modern knowledge and best practices.	*are ready to* - enter into interaction in social, academic and professional field to discuss current issues; - independently develop, agree, make decisions of professional and social issues and be responsible for them; - critically evaluate one's own knowledge and behavior for further personal and professional development; - form one's own social self-identification to value perception of society, country and international community; - be able to continue education with a significant level of autonomy.	**240**

	demonstrated	are able to	are ready to	**120 (60/90)**
Second (Master's)	- knowledge of new and latest scientific concepts and theories to solve issues occurred in the field of study and interdisciplinary context; - knowledge of research methodology in the field of study; - design-thinking	- apply theoretical and practical knowledge to address complex nonstandard scientific, social and ethical issues in the interdisciplinary context; - critically evaluate the latest developments in the scientific and professional field of study, consider an opportunity of their application in the context of the conducted researches; - make decisions in new and unfamiliar contexts on the basis of synthesis and integration of scientific knowledge and methodology; - carry out own scientific researches in the context of the latest theories, methodology and technology for creation innovative product.	- generate concepts and independently make effective decisions and optimal solutions in non-standard situation; - assume civil liability for the received scientific results and their social/economic effect; - inform on results to experts and non-experts, argue it at the scientific debates; - be able to work in team and perform corporate management; - critically evaluate own knowledge and actions, be able to continue education with high level of autonomy.	

Second (Residency)	*demonstrated* - systemic knowledge, vision of actual problems in the field of professional activity in a multidisciplinary context; - knowledge of fundamental scientific principles of disease development and principles of scientifically-based medical practice	*are able to* - apply theoretical and practical knowledge to solve complex problems in their medical practice in an interdisciplinary context; - critically evaluate the latest achievements of medical science and practice, consider the possibility of their application in the context of their own medical activities; - to make decisions in new and unfamiliar contexts on the basis of synthesis and integration of own practical experience and available scientific evidence; - to carry out professional activities in the context of the latest theories, methodologies and technologies to effectively solve the problems of medical practice.	*are ready to* - independently make an effective and optimal decision in medical practice; - be responsible for the results of professional activities and their medical and social effects; - to report the results of professional activity to specialists and non-specialists, to defend them in scientific and professional discussions; - to be able to work in a team, to carry out intra-and interprofessional interaction; - critically evaluate one's knowledge and actions, be able to continue learning with a high degree of autonomy.	**140**

Third (PhD)	*demonstrated* - profound systemic knowledge, vision of current problems in the field of study and interdisciplinary context; - orientation in a variety of methodological and technological ways to address the essential tasks in the field of research and (or) innovations.	*are able to* - carry out ingenious researches contributing to the scientific field and extending its boundaries; - substantiate the urgency of the problem, structure its research with a scientific integrity; - generate new knowledge in the form justified and reliable results of doctoral research; - develop innovative programs of sector and interdisciplinary researches on the basis of synthesis of new and the latest concepts, research approaches, challenges.	*are ready to* - critically analyze, evaluate and synthesize new and complex scientific concepts and provide management of their realization; - represent own position with arguments in the scientific publications and discussions to the representatives of the scientific community; - facilitate within academic and professional contexts to the technological, social, cultural development of region and country; - find optimal solutions in complex, non-standard situations; - demonstrate autonomy, scientific and professional perfection and commitment to creation of new concepts.	**180**

The Compatibility of descriptors by cycles

	The first cycle	The Second cycle	The Third cycle
	Graduates demonstrated:		
Knowledge	- knowledge and understanding of facts, phenomena, theories and complex dependences between them in the field of study; - knowledge and understanding of research methods in the field of study; - knowledge of legal, social and cultural norms at the interpersonal interaction and professional activity.	- knowledge of new and latest scientific concepts and theories to solve issues occurred in the field of study and interdisciplinary context; - knowledge of research methodology in the field of study; - design-thinking	- profound systemic knowledge, vision of current problems in the field of study and interdisciplinary context; - orientation in a variety of methodological and technological ways to address the essential tasks in the field of research and (or) innovations.

	Graduates are able to		
Skills	- apply theoretical and practical knowledge to address learning, practical and professional issues in the field of study; - carry out selection and interpretation of significant data to pass judgment on social, scientific and ethical issues; - create a product in the professional field on the basis of modern knowledge and best practices.	- apply theoretical and practical knowledge to address complex non-standard scientific, social and ethical issues in the interdisciplinary context; - critically evaluate the latest developments in the scientific and professional field of study, consider an opportunity of their application in the context of the conducted researches; make decisions in new and unfamiliar contexts on the basis of synthesis and integration of scientific knowledge and methodology; - - carry out own scientific researches in the context of the latest theories, methodology and technology for creation innovative product.	- carry out ingenious researches contributing to the scientific field and extending its boundaries; - substantiate the urgency of the problem, structure its research with a scientific integrity; - generate new knowledge in the form justified and reliable results of doctoral research; - develop innovative programs of sector and interdisciplinary researches on the basis of synthesis of new and the latest concepts, research approaches, challenges

	Graduates are ready to:		
Responsibility and autonomy	- enter into interaction in social, academic and professional field to discuss current issues; - independently develop, agree, make decisions of professional and social issues and be responsible for them; - critically evaluate one's own knowledge and behavior for further personal and professional development; - form one's own social self-identification to value perception of society, country and international community; - be able to continue education with a significant level of autonomy.	- generate concepts and independently make effective decisions and optimal solutions in non-standard situation; - assume civil liability for the received scientific results and their social/economic effect; - inform on results to experts and non-experts, argue it at the scientific debates; - be able to work in team and perform corporate management; - critically evaluate own knowledge and actions, be able to continue education with high level of autonomy.	- critically analyze, evaluate and synthesize new and complex scientific concepts and provide management of their realization; - represent own position with arguments in the scientific publications and discussions to the representatives of the scientific community; - facilitate within academic and professional contexts to the technological, social, cultural development of region and country; - find optimal solutions in complex, nonstandard situations; - demonstrate autonomy, scientific and professional perfection and commitment to creation of new concepts.
Credit	**240**	**120 (60/90)**	**180**

The Working group on development of the National Qualifications Framework for Higher education

№	Full name	Position
1.	Zhakypova Fatima	Vice-Minister of education and science of the Republic of Kazakhstan, Chairman
2.	Toibaev Adlet	Director of the Department of higher and postgraduate education of MES RK
3.	Narbekova Banu	Deputy Director of the Department of higher and postgraduate education of MES RK
4.	Shyrgatova Rauza	Head of Partnerships and international projects office of the Department of technical and professional education of MES RK
5.	Zhubanova Dinara	Director of the Department for development of the national system of qualifications and forecasting of MLSPP (by agreement)
6.	Zhazetova Galima	Head of the Department of labor regulation and implementation of the national qualification system (by agreement)
7.	Kultumanova Almagul	Director of the Bologna process and academic mobility Center of MES RK
8.	Nurmagambetov Amantay	Adviser to the Director of the Bologna process and academic mobility Center of MES RK
9.	Akisheva Aysulu	Chief expert of the Bologna process and academic mobility Center of MES RK
10.	Kuzenbayev Ermek	Acting Chairman of Board of NJSC "Holding "Kasipkor"
11.	Alshanov Rakhman	"Turan" university rector, President of the Association of universities of the Republic of Kazakhstan
12.	Omirbayev Serik	Rector of the North Kazakhstan state university
13.	Akhmed-Zaki Darkhan	Rector of the University of International business
14.	Dzharasova Gulzhan	Vice-rector for academic affairs of Kh. Dosmukhamedov Atyrau state university
15.	Zhetesova Gulnar	Vice-rector for academic affairs of Karagandy state technical university
16.	Kargin Sergali	Vice-rector for academic affairs of E. Buketov Karagandy state university
17.	Syrymbetova Layla	Professor of E. Buketov Karagandy state university
18.	Ekshembeeva Lyudmila	Professor of Al-Farabi Kazakh national university
19.	Shonaeva Lazzat	Deputy Director of the Department of human capital development of NCE "Atameken" (by agreement)
20.	Zhumatayev Daniar	Expert of the Department of human capital development of NCE "Atameken" (by agreement)

21.	Isabekov Marat	Director of the Corporate Fund «Kazlogistics» (by agreement)
22.	Bayzhumova Alvina	Chairman of the General meeting of participants of the Association of HR managers, Umbrella company (by agreement)
23.	Uvaleev Zholaman	Executive Director of the Kazakhstan Association of IT companies (by agreement)
24.	Akhmurzina Lazzat	Executive Director for human capital development of the "KAZENERGY" Association (by agreement)
25.	Kazembekova Laura	Leading expert of the Department for human capital development of the "KAZENERGY" Association (by agreement)
26.	Zaitova Svetlana	President of "Kazakhstan Register" (by agreement)

The Examples of the learning outcomes of the first cycle on the educational program "Informatics"

NQF descriptors (6 level)	General descriptors of the first cycle of HE-NQF	SQF descriptors for Bachelor's qualification	Examples of Learning outcomes
Knowledge *Graduates demonstrated*			
A wide range of theoretical and practical knowledge in the professional field	- *knowledge and understanding of facts, phenomena, theories and complex dependences between them in the field of study;* - *knowledge and understanding of research methods in the field of study;* - *knowledge of legal, social and cultural norms at the interpersonal interaction and professional activity.*	Knowledge and understanding that go beyond and / or deepening knowledge and understanding, usually associated with the bachelor's level, which form the basis or opportunity for displaying originality in the development and / or application of ideas, often in a research context. Knowledge of the methodology of joint analysis, design and decision-making in complex professional situations, methods of communication and coordination of points of view, design and presentation of analytical and project documentation.	Upon completion of this educational program, students are expected to be able to: -Justify the choice of mathematical methods for describing, analyzing, and solving problems. -Explain the choice of basic standards, methodology and design patterns, methods, tools and programming languages, and information security tools for software design. -Explain the fundamental principles of software development, including describing programming paradigms, data structures, algorithms, and evaluating their complexity.

Skills			
Graduates are able to			
Independent development and promotion of various options for solving professional problems using theoretical and practical knowledge	- *apply theoretical and practical knowledge to address learning, practical and professional issues in the field of study;* - *carry out selection and interpretation of significant data to pass judgment on social, scientific and ethical issues; - create a product in the professional field on the basis of modern knowledge and best practices.*	Demonstrate knowledge and understanding in the field of study, including elements of the most advanced knowledge in the field. Demonstrate a set of skills for managing the process of work, the ability to choose methods, methodologies and evaluation criteria for obtaining results, distribute and delegate authority, form teams, and make decisions during the production process.	- Perform a comprehensive analysis of the main requirements for the user interface, configuration of hardware and software applications. - Perform software design, development, testing, debugging, and implementation. - Develop web and mobile applications with an ergonomic user interface based on a flexible methodology and network security principles, create new solutions. - Use parallel and distributed computing technologies to solve resource-intensive tasks. - Use artificial intelligence approaches and big data analysis and processing methods to solve real-world problems. - Create reliable software that meets user requirements. - Manage data, perform testing, health checks, and refactoring of program code. - Develop innovative solutions for integrating new technologies with existing applications.

Responsibility and autonomy *Graduates are ready to*			
Independent management and control of the processes of labor and educational activities within the framework of the organization's strategy, policy and goals, discussion of the problem, reasoning of conclusions and competent handling of information	- *enter into interaction in social, academic and professional field to discuss current issues; - independently develop, agree, make decisions of professional and social issues and be responsible for them;* - *critically evaluate one's own knowledge and behavior for further personal and professional development;* - *form one's own social self-identification to value perception of society, country and international community;* - *be able to continue education with a significant level of autonomy.*	management (installation and adjustment, production and technological, operational, service) within the company's strategy, which involves working on complex tasks, where the analysis of the situation or information requires an assessment of various factors, as well as team management; take responsibility: for the result at a specific site of the technological process; solve problems involving the choice and variety of solutions.	- Work in a team with a tolerant perception of social, ethnic and cultural differences, critically evaluate their activities, the team's activities. - To defend the working discussion, a choice of technology, methods of analysis of large databases, etc. - Communicate this information to both specialists and nonspecialists. - Critically evaluate one's professional level, determine the trajectory of further self-improvement.

The Examples of the learning outcomes of the second cycle on the educational program "Informatics"

NQF descriptors (7 level)	General descriptors of the first cycle of HE-NQF	SQF descriptors for Bachelor's qualification	Examples of Learning outcomes
Knowledge *Graduates demonstrated*			
Conceptual knowledge in the field of science and professional activity, Creation of new applied knowledge in the professional field	- *knowledge of new and latest scientific concepts and theories to solve issues occurred in the field of study and interdisciplinary context;* - *knowledge of research methodology in the field of study; - design-thinking*	Knowledge of the methodology of system analysis and design of professional situations, methods of making management decisions. Knowledge of the life cycle of project activities, rules for developing software products, the main business processes of the company, the basics of personnel management, production, management, management psychology, information security issues.	Upon completion of this educational program, students are expected to be able to: -Know the principles of organizing and planning research in this scientific field; --Describe ways to evaluate the computational complexity of algorithms. - Choose software design and development methods, programming languages, and architectures, taking into account their inherent limitations.

Skills			
Graduates are able to			
Self-determination of the purpose of professional activity and choose appropriate methods and means to achieve them. Implementation of scientific and innovative activities to obtain new knowledge	*- apply theoretical and practical knowledge to address complex nonstandard scientific, social and ethical issues in the interdisciplinary context;* *- critically evaluate the latest developments in the scientific and professional field of study, consider an opportunity of their application in the context of the conducted researches; -* *make decisions in new and unfamiliar contexts on the basis of synthesis and integration of scientific knowledge and methodology;* *- carry out own scientific researches in the context of the latest theories, methodology and technology for creation innovative product.*	Demonstrate knowledge and understanding that go beyond and / or developing knowledge and understanding gained at the bachelor's level that is the basis or opportunity for original development or application of ideas. Apply knowledge, understanding, and the ability to solve problems in new or unfamiliar situations and contexts within broader (or interdisciplinary) areas related to the field of study.	- Model tasks and develop new tools and applications for data collection, storage, analysis, and management. - Develop advanced network computer systems with an emphasis on reliability and security. - Perform high-performance scientific calculations, evaluate the performance of parallel computing systems. - Apply image recognition theory and machine learning methods to solve problems from various subject areas. - Restructure existing software by identifying problematic components and choosing solution strategies. - Carry out research and development in an environment focused on the final product, scientifically justify the made strategic decisions. - Analyze and critically relate to various sources of information, use them to structure and formulate reasoning. - Conduct research independently: understand current research issues, independently apply the published results or methods in a new context.

	Responsibility and autonomy		
	Graduates are ready to		
Defining the strategy, activity of a division or organization. Decision-making and responsibility at the division level	- *generate concepts and independently make effective decisions and optimal solutions in non-standard situation;* - *assume civil liability for the received scientific results and their social/economic effect;* - *inform on results to experts and non-experts, argue it at the scientific debates; - be able to work in team and perform corporate management;* - *critically evaluate own knowledge and actions, be able to continue education with high level of autonomy.*	Independently carry out: management (installation and commissioning, production and technological, operational, service) that involves working on complex tasks, where the analysis of the situation or information requires an assessment of various factors, as well as team management. Take responsibility: for the result on a specific site in a structured environment. Solve complex development problems, develop new approaches, using a variety of methods.	- Lead the research team: evaluate the necessary funds, separate tasks, plan the time of task completion, and provide reports. - Defend the results of the research in a reasoned manner during the discussion and defense of the dissertation. -Make realized decisions in matters of evaluation of social, professional and scientific problems.

The Examples of the learning outcomes of the third cycle on the educational program "Informatics"

NQF descriptors (8 level)	General descriptors of the first cycle of HE-NQF	SQF descriptors for Bachelor's qualification	Examples of Learning outcomes
Knowledge *Graduates demonstrated*			
Methodological knowledge in the field of innovative professional activity	- *profound systemic knowledge, vision of current problems in the field of study and interdisciplinary context;* - *orientation in a variety of methodological and technological ways to address the essential tasks in the field of research and (or) innovations.*	Knowledge of professional activities, as well as finance, marketing, and international markets. Knowledge at the most advanced level in the field of science.	Upon completion of this educational program, students are expected to be able to: -Know the principles of organizing and planning research in this scientific field; - Interpret fundamental concepts in computer science and new programming paradigms, and apply them in software design and development. - Formulate scientific goals, plan research, and conduct large-scale computational experiments in specific applications. -Critically analyze, evaluate and synthesize new and complex ideas in the field of computer science.

Skills			
Graduates are able to			
Generating ideas, predicting the results of innovation activities implementing large-scale changes in the professional and social sphere, management of complex production and scientific processes	- *carry out ingenious researches contributing to the scientific field and extending its boundaries; - substantiate the urgency of the problem, structure its research with a scientific integrity;* - *generate new knowledge in the form justified and reliable results of doctoral research;* - *develop innovative programs of sector–and interdisciplinary researches on the basis of synthesis of new and the latest concepts, research approaches, challenges.*	Demonstrate skills in developing the company's strategy, change, ability to cope with long-term and time consuming tasks, analyze diverse information, weigh risks, without loss of motivation and without compromising quality. Ability to research, develop, implement and adapt projects that lead to new knowledge and solutions. Apply special knowledge for critical analysis, evaluation and synthesis of new complex ideas that are at the cutting edge of science in professional activities.	Use big data processing and data mining methods to solve resource-intensive tasks. Develop computational algorithms for engineering tasks and implement them in high-performance systems. Investigate issues of computational complexity and stability of algorithms. Analyze and evaluate the reliability and fault tolerance of computer systems. Compare, analyze, and interpret complex experimental data and draw conclusions.

Responsibility and autonomy			
Graduates are ready to			
Defining a strategy, process management and activity, acceptance decisions and responsibilities at the level institutional structures. The ability to lead, autonomy, analysis, evaluation and implementation complex and innovative ideas in the scientific and practical field. Competent communication in a particular industry scientific and professional activities.	- *critically analyze, evaluate and synthesize new and complex scientific concepts and provide management of their realization; - represent own position with arguments in the scientific publications and discussions to the representatives of the scientific community;* - *facilitate within academic and professional contexts to the technological, social, cultural development of region and country;* - *find optimal solutions in complex, non-standard situations;* *- demonstrate autonomy, scientific and professional perfection and commitment to creation of new concepts.*	Independently carry out: management and analytical activities that involve working on complex tasks, where the analysis of the situation or information requires an assessment of various factors, as well as team management. Take responsibility: for the result on a specific site in a structured environment. Solve complex development problems, develop new approaches, using a variety of methods.	Present brand-new topics and research results at international and national conferences, seminars and workshops, both in front of specialists and in an audience that does not have the appropriate professional education. Contribute to original research that expands the boundaries of knowledge by developing a significant amount of work, publish research results in the form of scientific articles in Kazakh and foreign journals. Prepare explanatory notes and applications for research projects, perform planning, and guide and manage research in the field of computer science and related interdisciplinary fields. Organize research, design, and training activities, participate in scientific, government, and industrial research as part of a team, and be prepared for correct and tolerant interaction in society, social interaction, and cooperation to solve scientific and technical problems.

Confirmation of the Minister of Education and Science

КАЗАҚСТАН
РЕСПУБЛИКАСЫ
БІЛІМ ЖӘНЕ ҒЫЛЫМ
МИНИСТРЛІГІ

МИНИСТЕРСТВО
ОБРАЗОВАНИЯ И НАУКИ
РЕСПУБЛИКИ
КАЗАХСТАН

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2020 жылгы 19 наурыз № *1-14-4/1127-И*

Nur-Sultan, the Republic of Kazakstan
10 February 2020

Subject: Approval of the Self-certification Report of the HE-NQF

I hereby confirm that **the Self-certification report on compatibility of the Kazakhstan National Qualifications Framework for Higher education with the Framework for qualifications of the European Higher Education Area** has been made in accordance with the criteria and procedures agreed by the EQF Advisory Group and the Bologna Follow-Up Group and is therefore certified by the Ministry of Education and Science of the Republic of Kazakhstan.

Sincerely,

MINISTER   A. AIMAGAMBETOV

000702

Endorsement of the Independent Agency for Quality Assurance in Education.

Білім сапасын қамтамасыздандыру
бойынша тәуелсіз агенттігі

Независимое агентство по обеспечению
качества в образовании

Independent Agency for Quality Assurance in Education

Қазақстан Республикасы, Z05H9M7	Republic of Kazakhstan, Z05H9M7	Республика Казахстан, Z05H9M7
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№_____

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Register number: 01-0213
Nur-Sultan, the Republic of Kazakstan
10 February 2020

Subject: Approval of the Self-certification Report of the HE-NQF

    The Independent Agency for Quality Assurance in Education (IQAA) - is a leading international accreditation agency for the quality assurance of education founded in 2008 – is registered in the European Quality Assurance Register for Higher Education EQAR and is a full member of the European Association for Quality Assurance in Higher Education ENQA (since 2017) confirm that our Agency has been involved in the self-certification process and that **the Self-certification report on compatibility of the Kazakhstan National Qualifications Framework for Higher education with the Framework for qualifications of the European Higher Education Area** has been made with the criteria and procedures agreed by the EQF Advisory Group and the Bologna Follow-Up Group.

Sincerely,

    President   Sh. Kalanova

Endorsement of the Independent Agency for Accreditation and Ratings

АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ
ТӘУЕЛСІЗ АГЕНТТІГІ

IAAR

INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING

НЕЗАВИСИМОЕ АГЕНТСТВО
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«10» 02 2020г.
№ 7724-2

Register number:
Nur-Sultan, the Republic of Kazakstan
10 February 2020

Subject: Approval of the Self-Certification Report of the HE-NQF

The Independent Agency for Accreditation and Rating - is a leading international accreditation agency for the quality assurance of education founded in 2011 – is registered in the European Quality Assurance Register for Higher Education EQAR and is a full member of the European Association for Quality Assurance in Higher Education ENQA (since 2016) confirm that our Agency has been involved in the self-certification process and that **the Self-Certification Report on Compatibility of the Kazakhstan National Qualifications Framework for Higher Education with the Framework for Qualifications of the European Higher Education Area** has been made with the criteria and procedures agreed by the EQF Advisory Group and the Bologna Follow-Up Group.

Sincerely,

General Director   A. Zhumagulova

Peer review of international expert Baiba Ramina, Director of the Academic Information center, Latvia

Self-certification report on compatibility of the Kazakhstan National Qualifications Framework for the higher education with the Framework for Qualifications of the European Higher Education Area.

Self-certification report on compatibility of the Kazakhstan National Qualifications Framework for the higher education with the Framework for Qualifications of the European Higher Education Area is the result of a long process and describes in a clear way the development of the qualification framework and reforms undertaken and their results in the context of QF EHEA.

This peer review focuses on reviewing the Self-certification report on compatibility of the Kazakhstan National Qualifications Framework for the higher education with the Framework for Qualifications of the European Higher Education Area on clarity and credibility of processes undertaken by Kazakhstan National authorities with regard to creation and implementation of Qualification Framework for higher education. Report therefore explicitly addresses respective internationally agreed criteria and procedures.

Self-certification report is well structured. Part 1 offers to the foreign reader the insight into education system of Kazakhstan and the progress related to the creation and the implementation of Bologna qualifications. Part 2 and 3 reflects stages of the development of the national qualifications framework and compatibility of HE descriptors, that is in the centre of recent higher education transformation processes worldwide and in fact necessary for compatibility in European higher education area. Part 4 highlights compliance with criteria and procedures for the alignment to QF EHEA.

Inclusion of Glossary and definitions of crucial terms helps better understand the terminology used in the national education system.

Part 1.4 addresses quality assurance developments that are crucial for building trust in provision of higher education qualifications. The report clearly shows developments in the quality assurance and accreditation processes in higher education and their compliance with ESG and involvement in ENQA and EQAR.

Good approach is inclusion of level descriptors and learning outcomes in Annexes 4-6. Annex 2 compares level descriptions by dimensions and levels.

Self certification report reflects compliance with QF EHEA criteria (see detailed assessment in tables below) and offers a clear picture on self certification process.

Assessing compatibility QF EHEA.[1] criteria

Criteria	Assessment	Comments
1.The national framework for higher education qualifications and the body or bodies responsible for its development are designated by the national ministry responsible for higher education.	Being met	
2.There is a clear and demonstrable link between the qualifications in the national framework and the cycle qualification descriptors of the European framework.	Being met	
3.The national framework and its qualifications are demonstrably based on learning outcomes and the qualifications are linked to ECTS or ECTS compatible	Being met	ECTS compatible approach is in place (ECTS = 1 Kazakh credit point).

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[1] http://www.ehea.info/media.ehea.info/file/WG_Frameworks_qualification/71/0/050218_QF_EHEA_580710.pdf

credits.		
4. The procedures for inclusion of qualifications in the national framework are transparent.	Being met	
5. The national quality assurance system for higher education refer to the national framework of qualifications and are consistent with the Berlin Communiqué and any subsequent communiqués agreed by ministers in the Bologna Process.	Being met	Substantial progress documented by membership of the Kazakh Quality Agencies for HE in the ENQA and EQAR (1.4).
6. The national framework, and any alignment with the European framework, is referenced in all Diploma Supplements,	Being met	
7. The responsibilities of the domestic parties to the national framework are clearly determined and published.	Being met	Documented.

Assessing compatibility QF EHEA procedures proposed for self-certification

Procedures	Assessment	Comments
1. The competent national body/bodies shall self-certify thecompatibility of the national framework with the European framework	Being met	Documented.
2. The self-certification process shall include the stated agreement of the quality assurance bodies in the country in question recognised through the Bologna Process	Being met	Substantial improvement in quality assurance is documented. Quality Asssurance Agencies for HE statements are annexed.
3. The self-certification process shall involve international experts.	Being met	Peer reviews of international experts should is included in the report.
4. The self-certification and the evidence supporting it shall be published and shall address separately each of the criteria set out.	Being met	
5. The ENIC and NARIC networks shall maintain a publiclisting of States that have confirmed that they have completed the self-certification process.	It is planned to met	Will be updated
6. The completion of the self-certification process shall benoted on Diploma Supplements issued subsequently byshowing the link between the national framework and the European framework.	It is planned to met	Will be updated

All quality criteria are answered sufficiently in the report and from an external view all criteria are fulfilled. With a view to self-certification process – the work was done on a high level of national consultations and with high political support.

Congratulations to colleagues in Kazakhstan   for the efforts and work done – the results are very good.

Baiba Ramina

Peer review of international expert Varazdat Hovhannisyan, PhD Head of Quality Assurance Center, Armenia

Peer Review

of the self-certification report on compatibility of the Kazakhstan National Qualifications Framework for the higher education with the Framework for Qualifications of the European Higher Education Area

The report on compatibility of the Kazakhstan National Qualifications Framework for the Higher Education (NQF-HE) with the Framework for Qualifications of the European Higher Education Area (QF-EHEA) contains the conclusions of the self-certification group regarding the Kazakh NQF-HE. The self-certification on compatibility of the Kazakhstan NQF-HE with the QF-EHEA has been conducted as part of the Bologna process to ascertain the alignment of the NQF-HE with the overarching QF-EHEA.

The Self-certification of the National Qualifications Framework for Higher education contains the results of two interdepartmental Working groups on self-certification established by the Ministry of education *(Order No. 111 dated 28.03.2013, Order No. 152 dated 17.04.2019).* The last working group included the representatives of the Ministry of education and science, the Ministry of labour and social protection of the population, the National chamber of entrepreneurs "Atameken", industry associations and higher education institutions.

The report consists of a Glossary, Synopsis, Introduction, four chapters and Annexes. Chapter 1 describes Kazakh system of higher education. Chapter 2 and 3 provides information on development stages of the NQF and compatibility of HE descriptors. Chapter 4 provides an analysis of the NQF for higher education and highlights a compliance with criteria and self-certification procedures with QF-EHEA.

This peer review of Self-certification report is about compatibility of the Kazakhstan NQF-HE with the QF-EHEA on clarity and credibility of processes undertaken by Kazakhstan National authorities with regard to principles and criteria developed by the Bologna Working Group on Qualifications Frameworks, which were presented at the Bologna meeting in Bergen in 2005 and adopted by the ministers of higher education at the subsequent Bologna meeting in London in 2007. The criteria include *seven verification criteria* for establishing compatibility between the National Qualifications Framework and the Bologna Framework, and *six process criteria* to guide the self-certification process.

Verification criteria:

Criteria	Assessment	Comments
1. The national framework for higher education qualifications and the body or bodies responsible for its development are designated by the national ministry with responsibility for higher education.	Criteria is met	
2. There is a clear and demonstrable link between the qualifications in the national framework and the cycle qualification descriptors of the European framework.	Criteria is met	

3. The national framework and its qualifications are demonstrably based on learning outcomes, and the qualifications are linked to ECTS or ECTS compatible credits.	Criteria is met	ECTS = 1 Kazakh Credit Point
4. The procedures for inclusion of qualifications in the national framework are transparent.	Criteria is met	
5. The national quality assurance system for higher education refers to the national framework of qualifications and is consistent with the Berlin Communiqué and any subsequent communiqués agreed by ministers in the Bologna Process.	Criteria is met	Membership of the Kazakh Quality Agencies for HE in the ENQA and EQAR
6. The national framework, and any alignment with the European framework, is referenced in all Diploma Supplements.	Criteria is met	
7. The responsibilities of the domestic parties to the national framework are clearly determined and published.	Criteria is met	

The purpose of the verification criteria is not to ensure a complete conformity, but rather to place the compatibility and consistency between the cycle descriptors of the NQF and the Bologna Framework.

Process criteria:

Procedures	Assessment	Comments
1. The competent national body/bodies shall self-certify the compatibility of the national framework with the European framework.	Criteria is met	
2. The self-certification process shall include the stated agreement of the quality assurance bodies in the country in question recognised through the Bologna Process.	Criteria is met	Quality Asssurance Agencies for HE statements are annexed.
3. The self-certification process shall involve international experts.	Criteria is met	Peer reviews of international experts should be included in the report
4. The self-certification and the evidence supporting it shall be published and shall address separately each of the criteria set out.	Criteria is met	
5. The ENIC and NARIC networks shall maintain a public listing of States that have confirmed that they have completed the self-certification process.	It is planned to met	Should be updated

6. The completion of the self-certification process shall be noted on Diploma Supplements issued subsequently by showing the link between the national framework and the European framework.	It is planned to met	Should be updated

The purpose of the process criteria is to ensure the implementation of self-certification process by the competent national authorities in cooperation with impartial international experts, and to ensure the public availability of the results of the self-certification process to relevant stakeholders, such us students, employers, trade unions, higher education institutions, the ENIC-NARIC network and the Bologna partners.

So, the self-certification report reflects compliance with the QF-EHEA criteria and offers an actual and clear picture on Kazakh self-certification process.

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