

to the Decree of the President of the Republic of Uzbekistan No. UP-5847 dated October 8, 2019

CONCEPT of Development of the Higher Education System of the Republic of Uzbekistan until 2030

Chapter 1. General Provisions

The Concept of Development of the Higher Education System of the Republic of Uzbekistan until 2030 (hereinafter referred to as the Concept) is based on the needs of the social sphere and economic sectors, and aims at ensuring sound integration of science, education and industry in order to improve the quality of education, produce competitive personnel, organize scientific and innovative activities effectively and develop international cooperation, and it is pursuant to the Decree of the President of the Republic of Uzbekistan No. PP-4391 “On measures for introducing new management principles into the system of higher and secondary special education” dated July 11, 2019.

The concept defines strategic goals, priority areas, tasks and stages of development of higher education in the Republic of Uzbekistan for the medium and long term and serves as the basis for the development of industry specific programs and a set of measures in this area.

Chapter 2. Current Status of the Higher Education System and Existing Issues

As of today, there are 114 higher educational institutions (HEIs) in the Republic. Of them, 93 are national institutions, and 21 are foreign universities and their branches. In particular, over the past 3 years, 6 higher educational institutions and 17 branches have been established, as well as 14 branches of foreign universities.

Based on the proposals of the employers, the Classifier of Areas and Specialisations Taught by Higher Educational Institutions includes 329 areas of education and 582 specialties at the master degree level.

In the 2019-2020 academic year, remote education was introduced in 59 higher educational institutions, and evening education – in 10 higher educational institutions.

The number of students studying at the bachelor degree programs in the national higher educational is 410 thousand people, at the master degree programs - 13 thousand people. In the last 3 years these figures have grown by a factor of 1.7.

54.8 percent of undergraduate students study in the humanitarian and pedagogical areas, 25.2 percent - in the industrial and technical fields, 5.2 percent - in the social sciences, economics and law, 5.9 percent in agriculture and water management, 4.4 percent – in health and social security, and 4.5 percent – in the field of services.

40.8 percent of postgraduate students study in the humanitarian and pedagogical areas, 23.3 - in the industrial and technical fields, 13.3 percent in the social sciences, economics and law, 5.9 percent in agriculture and water management, 13.5 percent in health and social security, and 3.2 percent – in the field of services.

Admission numbers for the 2019-2020 academic year amounted to 121 thousand people and increased by 18 percent year on year, and by 92 percent from 2016.

Starting from the academic year 2018-2019, training activities on the basis of joint programs in cooperation with foreign universities have been held in 16 national higher educational institutions.

The Center for the Development of Nanotechnology, the Research Institute of Semiconductor Physics and Microelectronics, the Research Institute of Biophysics and Biochemistry, and the Scientific and Practical Center for Intellectual Software Systems have been created at the National University of Uzbekistan.

As of today, the number of degree-awarding academic councils in higher educational institutions is 84 (compared to 48 in 2017). Over the past 3 years, 1,693 faculty members successfully defended their doctoral dissertations, and the number of pedagogical staff of higher educational institutions with a scientific degree has reached 9,636 people (where 2,130 are doctors of science, and 7,506 hold PhD degrees). The scientific research capacity of the national higher educational institutions has grown by 5.1 percent.

Over the past 3 years, 1,611 professors and lecturers of higher educational institutions have completed internships and advanced training abroad. In the framework of international cooperation, 112 young people were accepted to the master degree courses and 51 to doctoral studies programs at foreign universities.

Through the El-Yurt Umidi Foundation, 46 professors were provided with internships in Canada, the UK and Italy.

In 2017-2019, 1,154 highly qualified lecturers and scientists were involved in the teaching process (94 from the USA, 445 from Europe, 299 from Asia, and 316 from the CIS countries).

The base salaries of university professors with a doctorate degree increased 3.2 times compared to 2016.

To date, the system of higher education still faces a number of urgent issues and shortfalls with regards to producing highly qualified personnel, in particular:

a) enrollment in higher education and assurance of education quality:

coverage by higher education is still low;

the content of existing qualification requirements, curricula and programs is not aimed at the development of practical skills of graduates, and the proportion of non-specific subjects in the curriculum is still high;

cooperation between higher educational institutions and customers in the field of personnel training is inefficient, and employers are not involved sufficiently in the development of the content of programs for higher education institutions;

students do not develop skills such as critical thinking, ability for independent search for information and analytical thinking;

hands-on training at enterprises is poorly organized, the qualifications of specialists trained does not meet modern labor market requirements;

due to the low level of teaching staff's proficiency in foreign languages and information and communication technologies, their professional skills do not comply with the modern requirements;

there is a shortage of teaching and learning materials, and a significant part of what is available does not meet modern requirements; activities on improving the quality of teaching and learning materials and using foreign literature as complementary or alternative resources are poorly organized;

the mechanisms for conducting student contests in higher educational institutions are not transparent, and there are no procedures for systemic work with contest winners;

there are no mechanisms for selecting students for higher educational institutions from among the talented youth;

the system of teacher professional development is ineffectively organized, in particular, highly qualified professors and teachers are not involved in conducting training in professional development institutions, and when the trainees are selected for training, their existing potential is not taken into account;

it is necessary to further develop activities aimed at improving the content related to ethics and morale, patriotic education of youth based on respect for national values, humanism and high principles, and ensure resilience of young people to the alien ideas and ideologies in higher education;

b) research and innovation:

the research activities of higher educational institutions do not take into account the plans of social and economic development of the regions; there is no analysis-based forecasting of innovative development;

there is no efficient practice of introduction of the results of innovation and research, commercialization of scientific developments and involvement of talented youth in research and development; the integration of education, science and industry is weak;

the research capacity of higher educational institutions is only 36.4 percent;

the average age of faculty members with a degree is 49 years (Doctors of Science are 56 years old, and PhDs and associates are 43 years old on average) and it remains high, with the share of retired doctors of science amounting to 45 percent;

research studies are not focused on the actual issues in the social sphere and sectors of the economy;

in recent years, the citation rates of articles published in authoritative international scientific journals have been going down;

there are no effective mechanisms in place to incentivise professors, lecturers, researchers and young scientists involved in research activities;

c) strengthening the infrastructure of higher educational institutions:

the existing dormitories, libraries, workshops, laboratories, sports and recreational facilities and social facilities do not cover the demand, and many of them do not meet the current technical requirements;

the higher educational institutions do not have a sufficient number of modern educational and research laboratories; the proportion of educational laboratory equipment that meets international standards is only 10 percent; at the same time, the teaching process is not adequately supported with laboratory supplies (reagents, chemical glassware, components, biological materials and other supplies);

the bulk of financial resources of higher educational institutions is spent on wages; the funds allocated on updating educational and research laboratories and maintaining buildings and facilities are inadequate;

d) increasing the attractiveness and competitiveness of the national higher education internationally:

national higher educational institutions are not included in the first 1,000 positions of the ranking of internationally recognized higher educational institutions, and their official websites are not included in first 1,000 positions in the Webometrics international ranking;

educational programs and student knowledge assessment system are not in line with the international standards;

existing student residences and social infrastructure do not meet the needs of foreign students;

the marketing activities, including PR projects (such as Days of Uzbek higher educational institutions, presentations etc.) are not of the adequate quality, and there is no interactive virtual platform in this area;

Chapter 3. Strategic Goals and Priority Areas for the Development of Higher Education System

The development of the higher education system is dependent on the achievement of the targets specified in the [appendix](#) to this Concept.

The strategic objectives of the development of the higher education system are as follows:

improving the quality of training of highly qualified personnel; development of human capital based on labour market requirements aimed at modernization and stable social and economic development of the country;

creating the necessary preconditions to increase the level of enrolment in higher education; training of highly qualified personnel with the creative and analytical thinking skills, who can

independently make decisions in order to fully utilise their intellectual capacity and develop further as a personality, based on the international standards;

development of a healthy competitive environment; increasing attractiveness and ensuring the competitiveness of the sector internationally.

The development of the higher education system should be based on the following priority areas, taking into account the concrete long-term objectives:

expanding the higher education coverage and improving the quality of training of specialists with higher education;

introducing digital technologies and modern methods into the teaching process;

improving the effectiveness of research in higher educational institutions, ensuring broader involvement of young people in research and developing innovative research infrastructure;

increasing the effectiveness of activities aimed at developing ethics and morale;

Actively engaging employers into the process of training highly qualified specialists;

ensuring financial independence and sustainability of higher educational institutions and strengthening their infrastructure;

systemic development of higher educational institutions and improvement of their governance;

combating corruption and introducing efficient mechanisms to ensure transparency;

increasing investment attractiveness of the higher education system and ensuring its recognition and competitiveness at the international level.

§ 1. Enhancement of Higher Education Coverage and Improving the Quality of Teaching in Higher Education

The following measures shall be implemented to enhance the higher education coverage and improve the quality of teaching in higher education:

development of a competitive environment in higher education through the development of public-private partnerships in the sector, supporting establishment of public and private higher educational institutions and branches of reputable international higher educational institutions in the provinces, and attracting investments;

establishment of the Presidential University as the center of excellence for education and science, to produce highly professional and independently thinking patriots equipped with current knowledge and skills combined with international standards and national traditions;

development of training outcomes for the higher education system, taking into account the existing investment programs, as well as programs for development of provinces and industry sectors, the requirements of boards of trustees and technological changes at the international level, the optimization of areas and specialties of education, with particular attention to the development of STEAM (Science, Technology, Engineering, Arts and Mathematics) programs;

gradual implementation of the mechanism for the higher educational institutions to establish independently admission parameters for students who pay tuition fees, based on the HEI capacity, research potential and other key indicators;

introduction of mechanisms for the phased distribution of training parameters based on public grants allocated through competitive selection process among higher educational institutions;

further strengthening of the guarantees of the women rights to higher education, ensuring the priority of the principles of gender equality in obtaining education, conducting extensive regular outreach work in local communities (mahallas), public schools, academic lyceums and professional colleges, aimed at the widespread engagement of women in higher education;

ensuring harmonization and continuity of the programs of general secondary, specialized secondary and higher education systems in order to achieve continued education;

development of mechanisms for gradual transformation of HEI curricula system based on credits and modules;

developing of teaching programs based on the interests of students, in accordance with the needs of employers, by developing curricula aimed at developing creative thinking and practical

skills in students, based on individual learning paths, and gradually granting academic autonomy to higher educational institutions for approving the above;

increasing the proportion of hours devoted to self-learning, introducing methods and technologies aimed at developing students' self-learning skills, their critical and creative thinking, system analysis and entrepreneurial skills, introducing methods and technologies aimed at emphasizing competencies in the educational process, making sure that its focus is on development of practical skills; ensuring widespread introduction of advanced pedagogical technologies, curricula and teaching materials based on the international educational standards into the educational process;

improving student assessment methods, including development of methods for contactless assessment of learning achievements, and ensuring their unbiasedness;

developing mechanisms for promoting healthy competition among students in the process of learning;

gradually reducing the number of subjects in curricula due to removing non-specific disciplines, as well as the including related subjects in the list of optional subjects;

increasing focus on the quality of training in humanitarian and pedagogical areas, reviewing and improving curricula and programs in teacher training areas and specialisations based on the international best practices, developing skills of applying modern teaching technologies in the students undergoing pre-service teacher training, improving teacher training infrastructure, providing all public schools in the provinces with highly qualified professional teaching staff with sound knowledge of foreign languages;

improving the system of pre-service and in-service training and advanced professional development of HEIs' highly qualified teaching staff based on the international best practices;

ensuring systematic professional development of specialists responsible for teaching and methodological support in higher educational institutions;

increasing the share of specialty subjects taught in foreign languages in various areas and specialisations;

continuously improving the master degree curricula and programs to teach the graduates to conduct high quality research, instruct, manage, think critically and conduct system analysis;

improving the quality of teaching and learning materials, simplifying the procedures for developing locally or purchasing and translating latest international teaching and learning materials, expanding the use of international resources as complementary or alternative means, and regularly updating library collections;

improving the mechanisms for redistributing the yearly academic workload of professors and teachers who are selected on a competitive basis and possess copyrights to the teaching and learning materials, and providing them with more time for development of these materials literature by reducing their teaching hours;

increasing the range of educational services provided to students with disabilities and the improvement of service quality, developing inclusive education processes and introducing adaptive technologies;

improving the quality of student experience based on their feedback about teaching and developing a system of mutual visits (peer review);

developing students' self-learning activities by creating platforms for professional communication between professors and teachers on various fields of science, widely involving students in the process of quality assurance and introducing a tutorial system for organizational and methodological assistance;

conducting annual nation-wide student surveys to study their views on their experience, issues, lifestyle, teaching process and environment, based on the international experience;

attracting highly qualified foreign faculty to engage in teaching and research, as well as active Uzbek diaspora members successful in the field of education and science, who have expressed a desire to contribute to the development of the country, and creating various academic and infrastructural incentives for them;

developing effective mechanisms for engaging highly qualified academics into the teaching process and creating a system for evaluating their performance based on specific indicators;

ensuring a systematic increase of the share of higher educational institutions' professors, teachers and students who hold certificates issued by the national and international assessment systems and have perfect knowledge of foreign languages;

improving the professional skills of faculty members through their training at master and doctoral degree courses, internships, and advanced professional development abroad with the assistance of the El-Yurt Umidi Foundation;

wide involvement of practitioners with many years of experience in the teaching process, systematic organization of internships for professors and teachers at enterprises in the relevant industries;

improving the legal and methodological framework for the continuous professional development of specialists in the social sphere and all sectors of the economy, and wide use of distance learning methods;

developing remote training and evening classes for higher educational institutions, in order to allow people to study as they work, and introducing modern teaching approaches based on digital technologies;

improving public educational standards to ensure that the economy meets modern requirements;

developing and improving a methodological framework for the meaningful placement of students, qualification-based practical training and other types of students' practical training;

introducing domestic academic mobility programs and mechanisms for exchange of experience between national higher educational institutions;

developing academic mobility programs for professors, teachers and doctoral students in cooperation with foreign higher educational institutions;

improving mechanisms of internal control and accountability to improve education quality in higher educational institutions;

ensuring gradual implementation of the mechanism of admission of applicants with certificates issued by the national and international assessment systems in subjects relevant to the desired area of education, taking into account the average grade in the certificate of graduates in the process of admission to higher educational institutions;

expanding the list of subjects for which certificates of the national assessment system are provided, supporting the activities of state and non-state institutions providing these services;

improving the procedures for conducting subject specific student contests (Olympiads) in higher educational institutions, ensuring transparency and introducing assessment methods meeting the criteria of the International Olympiads and contests.

§ 2. Introducing Digital Technologies and Modern Methods in the Teaching Process

The following measures shall be implemented to introduce digital technologies and modern methods into the teaching process:

development of a system for training highly qualified engineering and technical personnel for the digital economy;

creation of additional favourable conditions to ensure a solid integration of modern ICT and educational technologies and to support continuous professional development of teaching staff;

customisation of teaching process based on digital technologies, development of distance education, widespread adoption of webinar technologies, online learning, "blended learning" and "flipped classroom" approaches in practice;

introduction of distance education programs based on modern information and communication technologies;

implementation of the "E-MINBAR" platform with the possibility to see and hear lectures, practical activities and seminars online and download them to digital devices and the use of "cloud technologies" in teaching;

widespread introduction of electronic libraries that can be used remotely, expanding the possibilities of continuous professional development of students by allowing them to use the libraries and databases after graduation from higher educational institutions;

expedited development of national electronic educational resources, arranging translation of international electronic resources, a gradual increase of the share of electronic resources in the educational process, development of electronic teaching and learning materials, as well as a system for posting information on electronic resources in libraries using a QR code to download electronic resources on mobile devices;

creation of an electronic database of scientific and technical information, comprising conference materials, graduate qualification works, masters' and doctoral dissertations at higher educational institutions, and a widespread introduction of the anti-plagiarism system to ensure the originality of scientific and technical information in the future;

introduction of modern educational software, widely used internationally, based on the specifics and specialties of education;

a drastic decrease of the types of different reports and information to be provided by higher educational institutions, abandonment of paper-based reports, a gradual transition to the Digital University platform, which provides the transformation of the governance, the teaching processes, libraries and document exchange into the digital form, and introduction of an electronic system for monitoring performance of the educational process participants;

establishment of a regularly updated electronic database (Student Record System), which documents information about teachers, bachelor and master degree students and doctoral students of higher educational institutions, and creating a national system based on this database;

introduction of the "Higher Education Management Information System", a single higher education platform with regular updates, with the assistance from the international financial organizations; the platform will contain educational, methodological, legal and statistical data in the area of higher education, as well as information on public interactive services, with the function of accepting online announcements and applications for the competitive selection processes to fill vacant posts.

§ 3. Improving Research Efficiency, Involving Young People in Research Activities and Developing Innovative Research Infrastructure in Higher Educational Institutions

The following measures shall be implemented to increase research effectiveness, ensure wider involvement of young people in science and develop innovative research infrastructure in higher educational institutions:

gradual implementation of the "University 3.0" concept, which provides for close linkages between education, science, innovation and commercialization of research outcomes of higher educational institutions;

development of technology parks, foresight centers, technology transfer centers, start-ups and accelerators as part of higher educational institutions through the wide-scale mobilisation of foreign investments, expanding the scale of paid services and other extrabudgetary sources of funds, and supporting HEI activities in researching and forecasting the social and economic development of the relevant industries, areas and provinces;

making sure that the professors, scientists, doctorate students, graduate and undergraduate students use the newly established technology parks for their research and innovative activities;

creation of spin-off and spin-out enterprises on the basis of higher educational institutions to put into practice the outcomes of scientific research by creating new products, equipment and technologies with high commercialization potential based on start-up projects, using extrabudgetary funds, and development of academic entrepreneurship;

support to the development of science in combination with advanced achievements based on the analysis of the international research achievements using SciVal – international information and analytical system;

introduction of mechanisms to support publishing articles in authoritative international academic journals;

ensuring gradual inclusion of HEIs' academic journals in Scopus, ScienceDirect and other international academic databases;

development of fundamental, applied and innovative science, maintenance of existing research schools and creation of new ones, development of their human resources, at the same time supporting the wide-scale involvement of talented youth in research;

introduction of a system of incentives that would use extrabudgetary funds to stimulate researchers, professors and young research fellows with a high Hirsch index (h-index) - an indicator that confirms international recognition of research findings by publishing articles in recognized academic journals included in the international databases;

improvement of quality of HEIs' research, development of mechanisms for providing them with statistical, technical and other types of information, and adoption of relevant legal acts in this area;

ensuring the optimal ratio of the HEIs' faculty in terms of their age, degrees and positions;

engaging scientists working in research institutions to teach and manage research activities, ensuring development and defense of research theses at master and doctor degree levels in these research institutions;

specialization of research in each higher educational institution looking into narrow and related subjects (in the context of faculties, departments and laboratories), adapting the research to the needs of the industry and development of the provinces, identifying promising research areas that offer a comparative advantage, increasing the proportion of highly qualified faculty and students in these areas;

increasing the efficiency of the Uzbek-Japanese Youth Innovation Center at the Tashkent State Technical University, the Training and Practice Textile Technology Park at the Tashkent Institute of Textile and Light Industry, as well as the innovative Khorazm Technology Park at the Urgench State University;

creation of 7 inter-university research laboratories on cellular and molecular biotechnology, medical genetics, ecophysiology, materials technology, energy-saving technologies, instrumentation and automated systems, construction materials and food products and technologies, in order to improve the innovation infrastructure through wide-scale mobilization of preferential funding (or soft loans) from international financial institutions;

support to the modern scientific research conducted at the Center for the Development of Nanotechnology under the National University of Uzbekistan, the Research Institute of Semiconductor Physics and Microelectronics, the Institute of Biophysics and Biochemistry, and the Scientific and Practical Center for Intellectual Software Systems;

development of international cooperation in the field of science, establishment of active cooperation between the relevant institutes of the Academy of Sciences of the Republic of Uzbekistan and reputable foreign higher education and research institutions, as well as domestic higher educational institutions, with wide application of the mentoring approach;

making the academic staff more efficient in their research activities by reducing the number of various journals to be maintained, and reports and methodological documents to be prepared by them;

focusing the research on finding innovative solutions to existing problems in the social sphere and various sectors of the economy, including at the level of provinces, and conducting an extensive research into the problems of related disciplines;

identification of talented youth, their enrolment into academic lyceums, their admission to higher educational institutions, training on the basis of in-depth programs, as well as enhancing their participation in subject-specific Olympiads, supporting their interest in science; seconding them as trainees to qualified specialists with significant achievement in relevant fields who will serve as mentors based on the "mentor and student" system, and establishment of an electronic database in this area;

establishment and strengthening of cooperation of higher educational institutions with the Academy of Youth and the Republican Council for Science and Technology;

enhancement of the scientific capacity of higher educational institutions, development of a system for training scientists and teachers through specialised doctoral studies;

development of joint degree programs in cooperation with foreign higher educational institutions;

improving the quality of provision of postgraduate education facilities based on the international experience, and bringing scientific councils and thesis defense systems in line with international practice;

transfer of the authority for conferring academic degrees and titles to higher educational institutions in a phased way;

provision of autonomy to higher educational institutions to determine the terms and conditions for admission to doctoral studies, with a particular focus on scientific achievements in the process of selection of applicants;

creation of a platform for online remote observation of meetings of academic councils for awarding a degree, so that higher educational institutions in the provinces could observe the process.

§ 4. Improving the Effectiveness of Building Ethics and Morality in Students

The following measures shall be implemented in order to increase the effectiveness of work aimed at building ethics and morality in students:

putting into practice the five initiatives, including a set of measures aimed at creating additional favourable conditions for training and education of students, including engaging students in culture and art, physical education and sports, improving their skills of using computer and Internet technologies, stimulating them to read, and developing professional skills of female students;

systematic organization of the ethics and morality education in higher educational institutions, improving the effectiveness of measures taken in this area, developing and implementing the “Concept for the development of ethics and morality of students” aimed at supporting intellectual capacity, thinking and worldview, strengthening the resilience of youth to hostile ideologies and making it a harmoniously developed generation living with a sense of patriotism and serving the interests of the nation;

upbringing of patriotic and motivated youth who are professionals in their field, having acquired current knowledge and skills, possessing great human qualities, being able to take responsibility for addressing important tasks faced by the state and society; applying teaching and training methods in this area that require new approaches;

development of sports in higher educational institutions as an additional value; development and implementation of measures to promote healthy lifestyle among students;

development of legal consciousness and culture, raising youth awareness of the essence and content of legislative acts, development of national moral values along with the universal human values such as living a healthy lifestyle, adhering to the principles of human rights, gender equality, peacekeeping, interethnic harmony, freedom of conscience, respect for language, national customs and traditions of all nations and ethnicities, establishment of social, political and economic activity and a strong citizenship stance;

the creation of wide conditions for the social adaptation of students with disabilities, and promotion of inclusiveness;

organization of systemic interaction between parents, local communities (mahallas) and higher educational institutions in field of the education of youth;

improving the activities of groups of sociological, pedagogical and psychological specialists in higher educational institutions, preparing students for family life, and improving propaganda aimed at strengthening the family;

creating conditions in educational institutions to support useful leisure of students by motivating them to master professions, acquire new knowledge, work on improving themselves, effectively use modern technologies, and develop entrepreneurial skills;

preventing students from falling under the negative influence of various information and strange ideas, as well from committing socially dangerous acts; widespread use of effective methods of training and education and modern information and communication technologies in order to unite young people in the name of the future of our country; conducting activities aimed at building ethics and morality, taking into account the interests of students, and supporting the youth initiatives;

development of cooperation of higher educational institutions with secondary schools under the concept “School is a Center of High-Mindedness and Edification” on such issues as the development of a high-minded and educational worldview, improving legal literacy, providing vocational guidance and preparing students for independent life on the basis of the mentoring model.

§ 5. Active Involvement of Employers in the Process of Training Highly Qualified Specialists

The following measures shall be implemented in order to actively engage employers in training highly qualified specialists:

development of the content of curricula and programs, as well as allocation of teaching hours for specialty disciplines in cooperation with the employers, based on the specifics of areas and specialties in line with the latest achievements of science and technology;

identification of topic of graduation theses, master's and doctoral dissertations based on the problems of the real sector of the economy and provinces (provinces, districts, cities, mahallas, various sites in the provinces), as well as the transition to in-depth study of topics in a specialised way;

strengthening the links between higher educational institutions and enterprises, as well as organizing their activities in the form of a cluster;

establishment of activities of higher educational institutions in regions with well-developed industry and in the special economic zones;

creating enabling conditions for students to work at enterprises and in relevant industry organizations in their free time;

ensuring mutually beneficial cooperation of higher educational institutions with enterprises, organizations and research institutions in the area of research and technological commissions and grant funded projects, research for new solutions to existing problems of businesses, active engagement of experienced practitioners to the educational process and widespread use of industrial infrastructure and practical cases in education;

establishing branches of the departments of specialty subjects at industrial enterprises, organising structural divisions of industrial enterprises, technology parks, business incubators and coworking centres at higher educational institutions, promoting effective cooperation between education and industry through technology transfer;

introducing a system of advanced training for teachers in the production process, as well as implementing effective mechanisms for attracting specialists with extensive experience but without a degree to the training process; in particular, they can act as invited honorary teachers, and recruiting these specialists to the relevant positions should be done in accordance with their experience in the certain field;

improving the procedure for the effective organization of student training and placements at manufacturing enterprises with the introduction of a system for issuing certificates confirming practical skills;

development of mechanisms for targeted educational programs, professional advanced training and retraining courses, trainings on the basis of higher educational institutions by attracting experienced practitioners from the industry based on requests from employers;

creation of “career centers” providing comprehensive assistance in student placements and employment, development of a list of potential employers and building cooperation, as well as ensuring productive use of the potential of alumni on the basis of restructuring higher educational institutions;

supporting the activities of centers for assessment of knowledge and skills of higher educational institutions graduates;

establishing mutually beneficial cooperation between employers, research centers and higher educational institutions on issues such as conducting research and commercializing its results, developing business incubators and venture financing, and improving relevant legal acts;

introduction of a system of binary (double) dissertation defense for awarding a basic doctorate degree to ensure rapid practical implementation of the scientific findings of doctoral dissertations, grow and stimulate youth interest in scientific activity, and support the prestige of science;

determination of the size and duration of grant projects based on commercialization and the timing of the practical implementation of research results through the competitions of fundamental, applied and innovative research;

development of the composition of the trustee board comprising employers, large employers, public figures and entrepreneurs who have achieved significant success in the industry;

introduction of the tradition of conducting a national employer survey annually in order to determine whether graduates' qualifications comply with employer requirements and identify and eliminate shortcomings in personnel training.

§ 6. Ensuring Financial Autonomy and Stability, Strengthening Logistical Support to Higher Education Institutions

The following measures shall be implemented with a view to ensure financial autonomy and stability, strengthening logistical support to higher education institutions:

gradual transition of higher education institutions to self-financing system, ensuring financial stability, improvement of remuneration systems, introduction of efficient and transparent financing mechanisms;

gradual transition to independent setting of tuition fees for undergraduate (and graduate) degree courses based on the demand for specialists in the economic sectors, as well as the HEIs' ranking and their cost structure in the future;

development of HEIs' operations aimed at exporting education services and provision of additional services;

activities involving construction, reconstruction and overhaul in line with modern requirements, application of latest technologies and engineering solutions using resource efficient and quick erecting structures and materials based on innovative technologies;

provision of modern software products to higher education institutions, creation of efficient mechanisms for continuous provision of training and laboratory equipment needed to support education and research activities as well as laboratory materials (reagents, chemical utensils, components, biological materials and other objects) in required quantities;

timely satisfaction of growing demand for student accommodation, libraries, training workshops, laboratories, sports and recreation facilities, social infrastructure, strengthening their material and technical resources in line with modern requirements;

creating additional conditions for students with special needs in student dormitory and university buildings, implementing measures aimed to providing educational institutions with required literature and learning resources for these categories of students;

creation of favourable conditions for accommodation and education of foreign students in higher educational institutions;

creation of innovative libraries, regular supply of new generation of training literature to top up their book stock;

uninterrupted provision of higher educational institutions with high speed internet access, expansion of infrastructure capabilities to support students' independent learning;
expanding opportunities for students, teachers and young researchers' use of electronic educational resources, e-catalogs and modern scientific databases free of charge;
creating financial incentives and supporting students from population groups in need of social protection;
creation of endowment funds in higher educational institutions financed from the proceeds of commercialisation of sponsored activities and research, special purpose capitals and other sources.

§ 7. Systematic Development and Improvement of Management of Higher Educational Institutions

The following measures shall be implemented with a view to to systematically develop and improve the management of higher educational institutions:

a) division of higher educational institutions into the following categories, with a strategy for their development in place, taking into account the quality and scale of training:

first category are the flagship universities (National University of Uzbekistan and Samarkand State University);

second category are the regional higher educational institutions that serve as centers of science and innovation;

third category are the sectoral higher education institutions that play the role of supporting institutions for education and research within their industry;

b) introduction of measures to transform higher educational institutions with the status of an institute into universities by expanding the scope of activities and strengthening their institutional potential;

c) gradual enlargement of higher educational institutions based on their capacity, scientific potential and other key indicators;

d) denationalization, privatization, implementation of governance principles in individual HEIs (with the exception of military higher educational institutions) as a pilot, retaining at least 51 percent of the public share;

e) increasing prestige and level of activity, and strengthening the role of the Republican Council for Higher Education with regards to drafting documents on development of higher education and holding consultations on them, and introduction of modern mechanisms of public control in HEIs:

f) optimization of management processes in the higher education system based on information and communication technologies, and expansion of scale of interactive public services;

g) introduction of the principles of strategic planning in the development of higher educational institutions, while increasing the responsibility and role of board of trustees;

h) enhancing the functions of the State Inspection for Supervision of Quality in Education under the Cabinet of Ministers of the Republic of Uzbekistan based on the international experience, including introduction of new mechanisms for assessing education quality, addressing problems through in-depth study of the outcomes of the national survey covering employers and students, education quality management in public and private educational institutions through effective tools, and making emphasis on quality of graduates and their employment according to the education they received;

i) identification of measures necessary to create a non-government system for monitoring education quality and ranking higher educational institutions;

g) hiring and appointing HEI managerial staff from among the personnel who make a significant contribution to the development of the higher education system, applying the principles of meritocracy, ensuring fair and objective assessment of their performance, professional qualities

and inputs, and adhering to the principles of gender equality when appointing personnel to senior positions;

j) increasing effectiveness of development, purposeful education and training of the reserve cadre for senior positions in higher educational institutions;

k) introduction of a mechanism for rotation of senior managers of higher educational institutions.

§ 8. Introducing Effective Anti-Corruption and Transparency Mechanisms

The following measures shall be implemented with a view to introduce effective anti-corruption mechanisms and ensure transparency:

continued implementation of the “Corruption Free Area” project in the field of higher education, with eradication of all manifestations of corruption;

development of HEI teams from among experienced, honest, conscientious and responsible professors, teachers and employees, with a clear definition of their tasks;

increasing the responsibility of higher educational institutions for ensuring education quality and accountability to society, regularly informing the general public about the provision quality based on the principles of transparency and objectivity;

eradication of bureaucratic factors hindering interaction between professors, teachers and students; strengthening transparency of assessment mechanisms, ensuring fairness in assessing students' learning achievements;

prevention of abuse in the process of accepting documents from applicants for bachelor and master degree programs, conducting all professional (creativity-based) exams, assessing knowledge, transferring to other programs or being reinstated at classes, and increasing the importance of public councils and ensuring transparency in this area;

strengthening the authority of professors and teachers in the society, taking measures to increase the attractiveness of this profession;

ensuring transparency of the activities of the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan and higher educational institutions, strengthening links with civil society institutions, introducing effective and up-to-date ways of providing information to the public;

ensuring transparency of continuing education, preparation and implementation of research projects, their monitoring and control, hiring and appointment of employees, monitoring the activities of higher educational institutions and other processes within the system;

improving performance of personnel of the higher education system based on the optimization of the teaching loads of professors and teachers, and ensuring wide introduction of modern information and communication technologies into teaching;

ensuring fairness and openness when hiring teaching staff, holding competitions for positions in the higher education system, assessing the performance of teaching staff at the end of the school year, introducing new and effective mechanisms of public control in this direction;

improvement of activities to comply with applicable laws and regulations in the field of financing higher education institutions, the procedure for forming cost estimates, conducting internal financial audits, ensuring the timely detection and elimination of corruption in this process;

development and implementation of legal acts streamlining issues of development of backup cadres and ensuring compliance with ethical standards in the system of higher education.

§ 9. Increasing Investment Attractiveness, Ensuring International Recognition and Competitiveness of the Higher Education System

The following measures shall be implemented with a view to increase investment attractiveness, ensure international recognition and competitiveness of the higher education system:

conducting systematic work to ensure that at least 10 national higher educational institutions are included into the top 1,000 university rankings issued by the internationally recognized organizations (Quacquarelli Symonds World University Rankings, Times Higher Education or Academic Ranking of World Universities), with the National University of Uzbekistan and Samarkand State University being ranked among the first 500, and introduce modern mechanisms of targeted public financial support for these higher educational institutions;

increasing the participation of higher educational institutions in growing the gross domestic product of Uzbekistan and their role in shaping a positive international image of the country;

development of substantiated proposals for harmonizing the national higher education system with the international educational standards, adapting training programs to the requirements of internationally recognized international standards based on in-depth study and analysis of international best practices;

increase of the share of areas and specialties of education and departments using foreign languages as medium of instruction for all disciplines;

adoption of the relevant legal acts on enrolment of foreign citizens to the master degree and doctoral courses based on interviews conducted in the way established by the higher educational institutions;

enhancing cooperation with other countries in the field of export of educational services and improvement of their regulatory framework;

implementation of the “Study in Uzbekistan” project aimed at development of a special web portal promoting education services provided in the country, with regular updates providing detailed and reliable information on all higher educational institutions;

adoption of a program on the strategy of building the image of the national higher education system and higher educational institutions based on development of a system of brands and scientific traditions in education;

organization of specialized international Olympiads between higher educational institutions;

expanding training activities on the basis of joint training programs in cooperation with foreign higher educational institutions, increasing the number of joint scientific conferences and seminars, implementing international scientific and educational projects;

together with higher educational institutions and research centers of economically developed foreign countries, publishing joint international scientific journals, holding educational forums, conferences of vice-chancellors and other events;

improvement of the positions occupied by the official websites of higher educational institutions in the Webometrics University Ranking, with regular publication of information on graduate employment at the leading enterprises and organizations, basic data on areas of training and master degree programs, scientific and technical potential, faculty, infrastructure and performance of higher educational institutions;

establishment of branches of national higher educational institutions abroad and implementation of joint training programs;

improving the regulatory framework for provision of consulting services by domestic and foreign agencies to attract foreign citizens to study in the Republic of Uzbekistan;

strengthening cooperation with the Agency of Information and Mass Communications under the Presidential Administration of the Republic of Uzbekistan, embassies abroad and international organizations, implementing modern PR projects to build the image of the national higher education system globally;

strengthening ties with international financial institutions and leading international organizations in order to develop international cooperation in the field of higher education, supporting innovative initiatives in line with the interests of the education system of our country.

Chapter 4. Expected Outcomes of the Concept Implementation

It is planned to achieve the following results for the development of the higher education system of the Republic of Uzbekistan by 2030 through implementing the tasks outlined by the Concept:

- ensuring higher education coverage of more than 50 percent due to the development of public-private partnerships in higher education and branches of public and private higher educational institutions, in particular prestigious foreign ones, in the provinces of the country, creating a competitive environment;

- transformation of the National University of Uzbekistan and Samarkand State University into the flagships universities for the country;

- ensuring that at least 10 national higher educational institutions of the country are included into the top 1,000 university rankings issued by the internationally recognized organizations (Quacquarelli Symonds World University Rankings, Times Higher Education or Academic Ranking of World Universities), with the National University of Uzbekistan and Samarkand State University being ranked among the first 500;

- gradual transformation of the teaching processes in higher educational institutions to the system based on credits and modules;

- introduction of advanced higher education standards, in particular a phased transition from the system with curriculum aimed at providing theoretical knowledge to the system aimed at developing practical skills based on the international experience;

- radical improvement of the content of higher education, establishing a system of training highly qualified personnel who can be competitive in the labor market, making a worthy contribution to the sustainable development of the society and national economy;

- ensuring academic autonomy of higher educational institutions;

- gradual implementation of the "University 3.0" concept, which provides for close linkages between education, science, innovation and commercialization of research outcomes of higher educational institutions;

- development of technology parks, foresight centers, technology transfer centers, start-ups and accelerators as part of higher educational institutions through the wide-scale mobilisation of foreign investments, expanding the scale of paid services and other extrabudgetary sources of funds, and supporting HEI activities in researching and forecasting the social and economic development of the relevant industries, areas and provinces;

- supporting publication of articles by professors, research fellows, PhDs, doctoral students, undergraduate and graduate students of higher educational institutions in reputable international scientific journals with a high impact factor, increasing citation rates of the articles, and ensuring gradual inclusion of national scientific journals in the international scientific and technical databases;

- turning the higher education system of Uzbekistan into a hub for implementation of international educational programs in Central Asia;

- increasing investment attractiveness of higher education and introducing international educational and research technologies;

- development based on the five initiatives, including a set of measures aimed at creating additional favourable conditions for training and education of students;

- improving the infrastructure and facilities of higher educational institutions, including through the wide-scale mobilisation of preferential funds from international financial institutions, gradual transition of higher educational institutions to a self-financing system and ensuring their financial sustainability;

- establishing mutually beneficial cooperation between education system and manufacturing enterprises and research institutes;

- increasing higher education coverage for people in need of social protection, including those with disabilities, and putting relevant infrastructure in place.