### TURAN-ASTANA UNIVERSITY



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DEVELOPMENT PROGRAMME (Strategy) of Turan-Astana University for 2025 – 2029

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### 1. PASSPORT OF THE PROGRAMME

Programme Title	Development Programme of Turan-Astana University for 2025–2029
Basis for the Programme Development	<ol> <li>Law of the Republic of Kazakhstan "On Education" dated July 27, 2007 no. 319-III;</li> <li>Law of the Republic of Kazakhstan "On Science and Technological Policy" dated July 1, 2024 no. 103-VIII;</li> <li>Development strategy of the Republic of Kazakhstan until 2050, Astana, December 14, 2012;</li> <li>Concept of science and higher education development of the Republic of Kazakhstan for 2023-2029 dated March 28, 2023 no. 248;</li> <li>Methodological recommendations of the Ministry of science and higher education on the development of university development programmes dated June 26, 2023;</li> <li>Concept of digital transformation, development of information and communication technologies, and cybersecurity for 2023-2029 dated March 28, 2023 no. 269.</li> </ol>
The Goal of the Programme	To create conditions for improving the quality of educational services, scientific potential, and innovative development, contributing to strengthening the university's reputation at the national and international levels.
Programme Objectives	<ol> <li>Moving towards a Smart University: implementing modern digital technologies and creating intelligent infrastructure.</li> <li>Development of science and innovation: enhancing scientific research and commercializing its results.</li> <li>Focus on quality: improving the quality of educational services to strengthen the university's reputation and image.</li> <li>International integration: strengthening ties with foreign universities and increasing the number of international students.</li> <li>Development of entrepreneurship and startup culture: fostering entrepreneurial thinking, creating conditions for the development of startups and innovative projects, and engaging with the business community and investors.</li> </ol>

Programme Implementation Period	The programme is implemented from January 1, 2025 to December 31, 2029.
Programme Implementers	University administration, faculty members, researchers, administrative units, and the university's strategic partners.
Expected Results	Implementation of advanced digital technologies in the educational process. Increase in publication activity and scientific achievements. Improvement in education quality, confirmed by international accreditations. Higher positions in national and international university rankings. Increase in the number of international students. Creation of at least 10 startups and small innovative enterprises based at the university. Establishment achievements a strong university brand at national and international levels.
Funding Sources	1. University's own funds: revenue from educational services, commercialization of scientific developments, and other university activities.  2. Government grants and subsidies: within national programmes supporting education and science, including research grants, infrastructure development, and digitalization of the educational process.  3. International grants and funds: funding from international organizations such as the World Bank, European Bank for Reconstruction and Development, and participation in Erasmus+ and Horizon Europe programmes.  4. Private investments: attracting funds from private investors and partners interested in developing educational and scientific projects.  5. Corporate partnerships: participation in joint projects with large corporations supporting educational and scientific initiatives.  6. Sponsorship support: securing funding from companies supporting socially significant educational and scientific projects.

### 2. ANALYSIS OF THE EXTERNAL ENVIRONMENT AND THE CURRENT SITUATION

#### 2.1 External Factors Affecting the University

In recent years, the legislative framework of the Republic of Kazakhstan has undergone significant changes in the fields of education, science, and digitalization, directly influencing the activities of higher education institutions. One of the key documents defining the directions for the development of higher education and science is the Concept for the Development of Science and Higher Education of the Republic of Kazakhstan for 2023-2029, aimed at improving the quality of education, strengthening the country's scientific potential, and integrating into the international educational space. This document outlines priorities in the digitalization of the educational process, the development of universities' academic autonomy, and the enhancement of international cooperation.

Additionally, the Law of the Republic of Kazakhstan "On Education" and the Law "On Science and Technological Policy" are crucial legislative acts that regulate key aspects of educational and scientific activities, including requirements for educational programmes, accreditation processes, and mechanisms for financing scientific research. In 2024, a new Law "On Science and Technological Policy" was adopted, focusing on supporting scientific research, implementing innovations, and commercializing scientific achievements.

Particular attention is given to digitalization. Within the Concept of Digital Transformation for 2023-2029, emphasis is placed on integrating information and communication technologies into educational processes, developing distance and hybrid learning, and creating digital platforms for managing educational activities. This opens new opportunities for universities to develop digital infrastructure and adapt to modern challenges.

At the same time, legislation actively encourages integration with international educational systems, requiring universities to meet international standards and accreditations, and to strengthen their positions in the global educational market.

The modern labor market is undergoing significant changes due to globalization, technological innovations, and digital transformation. Employers increasingly set new competency requirements for graduates, directly influencing the strategic planning of university educational programmes.

One of the key trends is the growing demand for digital skills. In the context of accelerated digitalization across nearly all economic sectors, employers expect graduates to have confident knowledge in information technology, programming, data analysis, and working with large data sets (Big Data). The ability to adapt to rapid technological changes has become an important competitive advantage.

There is also a significant increase in demand for interdisciplinary competencies. In the complex and constantly changing work environment, graduates capable of working effectively at the intersection of various fields - such as IT and biology (bioinformatics), or engineering and medicine (biotechnology) - are highly sought after. This trend necessitates a revision of educational programmes towards greater interdisciplinary and flexibility.

Globalization of the labor market also imposes language requirements on graduates, especially regarding proficiency in English. Many employers demand knowledge of international standards, the ability to communicate in multinational teams, and the capacity to work remotely. Therefore, training graduates with high-level language skills and intercultural communication abilities is becoming a priority.

Moreover, employers expect graduates to possess well-developed soft skills, including critical thinking, creativity, communication, and leadership. These qualities are particularly important in an era of automation, where human factors such as team management, decision-making, and solving non-standard tasks take center stage.

Entrepreneurial thinking is becoming increasingly essential. The startup sector and innovative projects are developing rapidly, making graduates prepared to start their own businesses or work in startups especially valuable in the job market. This trend urges universities to strengthen their entrepreneurship and innovation-related educational programmes.

To successfully prepare graduates for these realities, universities must adapt their programmes by focusing on both technical and interdisciplinary skills, enhancing language proficiency, and developing students' soft skills.

In recent decades, there has been a significant increase in competition among universities at both national and international levels. This process is driven by several factors, including the globalization of education, integration of educational systems, digital transformation, and universities' aspirations to improve their international status.

Globalization of the educational space.

With the globalization of economic and social processes, international cooperation in education has intensified. Modern universities actively promote academic mobility, join international associations, and establish partnerships with foreign universities. This creates new opportunities for student and faculty exchanges but also intensifies competition on the global stage.

Universities are striving to attract international students and faculty by signing dual-degree agreements, offering programmes in English, and improving their educational infrastructure. Consequently, international rankings such as QS World University Rankings and Times Higher Education have gained importance, as universities compete for higher positions to enhance their global reputation.

National competition and the growth of the private sector.

At the national level, competition among universities in Kazakhstan has also intensified. In recent years, there has been an increase in the number of private universities and educational programmes offering innovative teaching methods and more flexible learning conditions. Private institutions actively leverage the advantages of digital technologies, hybrid learning models, and close collaboration with employers, challenging traditional public universities to modernize their operations.

Additionally, both public and private universities in Kazakhstan compete for government grants, funding for scientific projects, and accreditations. Success in

securing these resources largely depends on how effectively institutions adapt to new challenges and meet the evolving demands of the government and society.

Increasing Demands for Educational Quality.

The rise in competition is accompanied by heightened expectations regarding the quality of educational programmes and services. Modern students and their families are becoming increasingly informed about the educational opportunities available to them. They assess universities not only based on academic indicators but also on criteria such as the use of modern educational technologies, curriculum flexibility, internship availability, career prospects, and post-graduation support.

International accreditations, such as FIBAA, QAA, ABET, AACSB, and others, play a crucial role in enhancing a university's competitiveness. Institutions that fail to secure such accreditations face difficulties in attracting students and establishing partnerships both domestically and internationally.

Digital Transformation and New Learning Models

The digitalization of education has introduced new forms of competition among universities. The adoption of online and hybrid learning models has enabled institutions to expand their reach, providing educational services not only at the national level but also globally. Both private and public universities have started to actively develop distance (online) education programmes, allowing them to compete in new markets, including international ones.

Global platforms like Coursera and edX, along with initiatives from leading global universities such as Harvard and MIT, which offer online courses and programmes, have intensified competition in the educational services market. As a result, Kazakhstani universities must actively implement digital solutions and modernize their educational programmes to remain competitive in the global educational landscape.

Competition for Scientific Resources and Funding

One of the most critical aspects of competition among universities is the fight for grant funding and scientific resources. International programmes like Horizon Europe and Erasmus+ provide substantial financial support for research and academic mobility. Simultaneously, universities in Kazakhstan compete domestically for government grants and funding for scientific projects offered by the Ministry of Science and Higher Education.

This competitive environment compels institutions to focus on developing their scientific infrastructure, attracting talented researchers, commercializing scientific innovations, and increasing publication activity in high-impact journals. Universities that excel in these areas not only secure additional funding but also strengthen their positions in national and international rankings.

Competition for Students and Academic Talent.

In addition to competing for scientific resources, universities vie for the best students and faculty members. Students choose institutions based on their reputation, career opportunities, availability of international exchanges, and internship programmes. Faculty members, in turn, select universities that offer better conditions for scientific research, professional development, and academic freedom.

To compete successfully, universities must offer attractive working conditions for faculty and researchers, as well as programmes capable of drawing talent from abroad. International academic mobility, participation in joint projects with leading global universities, and the exchange of academic staff are becoming key factors in securing top talent.

Thus, the growing competition among universities at both the national and international levels requires strategic flexibility, continuous improvement in the quality of educational services, the adoption of innovative technologies, and active participation in international scientific and educational projects. Universities must adapt proactively to changing market conditions and develop new approaches to attracting students, academic talent, and scientific resources to remain competitive in a dynamic educational environment.

Technological Advancement and the Shift to Digital Educational Models.

Modern technologies play a crucial role in transforming higher education, enabling universities to meet new societal and labor market demands. Transitioning to digital educational models has become a strategic priority for universities worldwide, including those in Kazakhstan. Institutions that implement cutting-edge technologies in their educational processes gain significant competitive advantages, enhancing their appeal to both students and employers.

Digital Transformation of Educational Processes.

The adoption of digital technologies is fundamentally changing approaches to teaching and learning. Traditional classroom-based instruction is gradually being supplemented-and even replaced-by hybrid and distance learning formats, significantly expanding access to educational resources. The development of platforms such as Learning Management Systems (LMS), online courses, and digital libraries allows students to access materials anytime and from anywhere.

Moreover, universities are increasingly using data analytics to improve educational processes. The application of Big Data and Artificial Intelligence (AI) enables instructors and administrators to analyze student performance, identify knowledge gaps, and offer personalized learning paths. This approach not only improves the quality of education but also helps reduce student dropout rates by increasing engagement and satisfaction with the learning experience.

The Growing Popularity of Online Education.

With the advancement of technology, universities are increasingly incorporating online education as a primary or supplementary component of learning. Platforms such as Coursera, edX, Khan Academy provide students with the opportunity to take courses from top universities worldwide in an online format, encouraging institutions to develop their own digital courses and programmes.

The COVID-19 pandemic has made online education an essential part of the learning process, acting as a catalyst for accelerating digital transformation. Universities are adopting hybrid learning models that combine online and offline components, making education more flexible and accessible. This shift also enhances international collaboration, as students can participate in exchange programmes and receive education from leading global universities without leaving their home countries.

### Personalized Learning Through Technology

The digitalization of education is driving a transition toward personalized learning models, where each student follows an individualized path. Artificial intelligence (AI) technologies enable real-time analysis of student progress, providing tailored recommendations to improve knowledge and skills. Automated assessment systems facilitate faster and more objective evaluations, freeing up instructors to focus on more meaningful teaching activities.

AI-powered adaptive learning systems adjust to a student's proficiency level, offering more advanced or simplified tasks based on their current performance. This reduces the burden on educators and enhances the efficiency of the learning process, making it more impactful.

Virtual and Augmented Reality (VR/AR) in Education

Virtual and augmented reality technologies are becoming valuable tools in educational programmes, particularly in disciplines such as engineering and the arts. With VR and AR, students can simulate complex processes and tasks in a safe and controlled environment, improving their practical skills and preparing them for real-world professional challenges.

These technologies create new opportunities for interactive learning, offering students unique experiences that cannot be replicated in a traditional classroom setting. The use of virtual labs, simulators, and interactive educational materials significantly expands the possibilities for teaching and learning.

Digitalization of Administrative Processes

Technology is also transforming university administration. Institutions are implementing automated student data management systems, which streamline and accelerate processes such as admissions, course registration, grading, and certification. These systems enhance administrative efficiency by reducing errors and eliminating data duplication.

Automation also enables universities to manage their resources more effectively, track infrastructure conditions, and facilitate better communication between faculty, students, and administration.

Preparing for the Future Job Market

The integration of digital technologies into education is essential for preparing students for the demands of the modern job market. Employers increasingly expect graduates to have proficiency in digital tools, data management skills, and the ability to adapt to rapidly changing technologies. Universities that actively embrace digital education models create the foundation for the successful careers of their graduates.

Moreover, universities must adapt to the evolving demands of the job market, including the growing need for specialists in fields such as artificial intelligence, data analysis, cybersecurity, and software development. Higher education institutions should not only modernize their academic programmes but also provide students with access to the latest technologies to effectively learn these disciplines.

The shift toward digital education models present universities with new opportunities to enhance the quality of education, increase student engagement, and better prepare graduates for the modern job market. Institutions that actively integrate digital technologies and adapt their curricula to current industry demands

will not only remain competitive at national and international levels but also establish themselves as leaders in their respective fields.

#### 2.2 Current Situation Within the University

#### 2.2.1 Assessment of Educational Service Quality

Among the global trends in university operations, a special focus is placed on quality orientation. Turan-Astana University is currently implementing a new academic policy aimed at ensuring high-quality standards.

The university is actively preparing to join the League of Academic Integrity of Kazakhstan, accompanied by comprehensive efforts to enhance and ensure quality standards. As part of this initiative, several measures are being implemented, including aligning academic performance assessment with recognized Bell Curve distribution standards, extensive use of written exams with a blind grading system, limiting the issuance of honors diplomas (no more than 5% of graduates), strict adherence to the Academic Integrity Code, mandatory plagiarism checks for all written works, and the integration of artificial intelligence. The university ensures transparency in all procedures, actively incorporates ROS scientific components into the educational process, and implements a system for tracking students' social and sports achievements (SSCI). An important aspect of this initiative is improving faculty satisfaction with teaching workloads and other efforts aimed at enhancing the educational environment and academic standards.

This is evidenced by the successful completion of accreditations and improved rankings. In the 2022-2023 academic year, the university successfully passed post-accreditation monitoring for 25 educational programmes, including 8 programmes accredited by the IAAR agency and 17 programmes by the IQAA, as well as institutional monitoring by IQAA, in the 2023-2024 academic year, the university achieved significant progress by securing the accreditation of its educational programmes and institutional accreditation. At the international level, the university obtained accreditation from ACQUIN (Germany) for 22 educational programmes, 17 of which were accredited for a period of 8 years. Additionally, the university successfully completed institutional accreditation with ACQUIN for 6 years and with IQAA for 5 years, confirming the compliance of its academic programmes with international standards. Based on the results of all accreditations, action plans have been developed and implemented to further enhance the quality of education.

Additionally, the university actively participates in national rankings, such as the educational programme ranking conducted by NCE "Atameken," which assesses the competitiveness of academic programmes across the country. For example, the competitiveness of the "Jurisprudence" programme improved by 8%, reaching 42% compared to the previous year. The "Translation Studies" programme grew by 33%, reaching 76%, while the "Tourism" programme advanced by 35%, achieving 45%.

These results demonstrate a positive trend in improving the quality of educational programmes and increasing the demand for graduates in the job market.

Thus, accreditations and active participation in rankings confirm the high level of educational services at Turan-Astana University. The university plans to further expand its participation in international accreditations and improve its positions in global rankings, which will strengthen its standing among the leading universities in Kazakhstan and beyond.

A significant effort has been made to transform the teaching staff's approach, fostering a conscious commitment to adhering to grade median standards. This has led to a comprehensive revision of methodological materials, assignments, and assessment criteria for student performance. These changes have sparked considerable discussion among students, who have experienced an increase in the complexity of the learning process. This initiative will continue to be developed further. The university has also implemented its own analytical system, "Grade Median", which enables tracking and analyzing student performance. This tool helps maintain academic standards, ensure objectivity in assessments, and enhance the methodological work of faculty members. The system received high praise during the institutional accreditation by IQAA's External Expert Group and has already been utilized to analyze winter session performance. Moving forward, it will incorporate data on all aspects of student and faculty activities.

Significant results have been achieved following the introduction of grade median compliance requirements, as evidenced by the outcomes of the spring examination sessions over the past two academic years. In the bachelor's programme, the proportion of "excellent" grades decreased from 13% to 9.9%, while "good" grades declined from 46% to 44.7%. At the same time, the share of "satisfactory" grades increased from 19% to 25.4%. The average session score remained unchanged at 60 points, indicating a positive trend that reflects the effectiveness of comprehensive measures aimed at balancing grades and adhering to the median. In the master's programme, a slightly different trend is observed. While the proportion of "excellent" grades increased by 1 percentage point, reaching 17%, the share of "good" grades declined from 54% to 46.3%, and "satisfactory" grades rose from 4% to 10.2%. The average score dropped from 67 to 59 points. These results can also be seen as positive, as they demonstrate the faculty's commitment to ensuring more accurate adherence to the grade median standards in graduate programmes.

Regarding academic integrity during examination sessions, 37 violations were recorded this year, compared to 103 cases last year- a 2.8-fold decrease. This indicates a significant improvement in the situation.

In 2023, the university introduced a module for detecting AI-generated text for the first time. The module, developed by the American company Originality, was integrated into the Platon Information System based on the plagiarism detection platform. All students' written assignments, including exam papers, underwent a dual-check process - for plagiarism and the probability of AI-generated content. We became one of the first universities in Kazakhstan to implement this module into the educational process.

A new system for verifying all written works of undergraduate and graduate students (from essays to final theses) for plagiarism was also implemented and integrated into the Platon Information System. This system enhances academic integrity and ensures objective assessment of student work.

Additionally, the university has launched a written exam submission system that supports blind grading by instructors. This system ensures separate evaluation of each question and includes plagiarism detection as well as an assessment of the probability of generative AI usage. These measures enhance the objectivity and transparency of examination procedures.

To ensure academic integrity, a special mode was developed and implemented in DigitalLab, which blocks access to all third-party programmes, the internet, and external storage devices on computers during examination sessions. This innovation has significantly enhanced the security of the examination process.

For the first time, the university has introduced the iROS system (Student Research Orientation Index) based on students' independent work (SIW and SIWP). A dedicated regulation has been developed and approved to clearly standardize this process.

Additionally, the university has implemented a regulation for the SSCI (Student Social and Sports Achievement Index). Both indicators are now integrated into the Platon Information System, which provides a free module for tracking students' social activities. Currently, staff training on using this module is underway, which will enable a future transition to an integrated GPA system that considers both academic performance and social engagement.

The university has signed an agreement with Coursera Kazakhstan to purchase 100 annual licenses worth 12 million tenge. These licenses will provide access to online courses for 300 students. As of now, 150 students have completed training and earned 330 certificates, demonstrating a high interest in informal education. Additionally, starting May 1, 2024, the Ministry of Science and Higher Education of the Republic of Kazakhstan has granted the university access to 200 more licenses until December 31, 2024, allowing an additional 400 students to benefit from the programme.

This year, an experimental model for managing educational programmes was introduced: 17 programme heads oversaw all 46 programmes at the university. The experiment was deemed successful, resulting in the revision of 30 programmes, which received expert approval.

Based on the LMS Platonus system, the business processes of the admissions office were revised and transitioned to a digital format. Additionally, the Help Desk portal was launched as the primary tool for resolving technical issues for both staff and students. Over the past year, the portal has processed 276 requests.

According to the survey results, faculty satisfaction with teaching workload increased from 73.6% to 91.2%, while satisfaction with salary levels rose by 17%. Additionally, satisfaction with the moral and psychological climate within departments reached 92.2%. Similar improvements were observed among students: 96% expressed satisfaction with faculty professionalism, and 98.5% responded negatively when asked about corruption.

The employment rate of university graduates from both bachelor's and master's programmes continues to show a positive trend, consistently exceeding 80% and

currently standing at 82% for both levels. These results highlight the high demand for our graduates in the job market and confirm the competitiveness of the university's educational programmes.

## 2.2.2 Scientific Potential: Publication Activity, Grants, and Research Projects

Scientific activity is one of the priority areas of development at Turan-Astana University. In recent years, the university has significantly strengthened its scientific potential, actively participating in research projects and international grant programmes, while also demonstrating high publication activity.

The university's faculty and researchers actively publish the results of their studies in reputable international and national scientific journals. Over the past two years, the number of publications in Scopus and Web of Science databases has exceeded 60 articles, indicating the growing international recognition of the university's research. In addition, the university publishes its own scientific journal (\*Turan-Astana University Bulletin\*), which serves as a platform for research article publication by both internal and external scholars. The university has also launched the Research and Development Incentive Map, which 20 authors have benefited from, with over 1.5 million KZT awarded in the last academic year.

Additionally, within the framework of the Internal Scientific and Methodological Committee, the university regularly holds scientific conferences, seminars, and round tables, fostering an increase in publications and the active exchange of scientific ideas. Over the past two years: more than 134 articles have been published in CQASHE journals, 141 articles in RSCI journals, 380 papers have been presented at international conferences. These achievements further strengthen the university's position in the international scientific community. In total, over the last two years, faculty members have published 715 scientific articles.

The university actively participates in international and national grant programmes aimed at supporting scientific research. In the 2023-2024 academic year, the university secured a grant-funded research project totaling 65 million tenge, significantly expanding its research infrastructure. This year, the university has also decided to allocate internal grants for faculty research projects, funded by non-budgetary resources, amounting to over 10 million tenge. More than 20 applications have already been submitted by researchers. Furthermore, faculty members and researchers are involved in projects under programmes such as Horizon Europe, Erasmus+, and Jean Monnet, contributing to the development of international collaboration and enhancement of scientific infrastructure.

Furthermore, the university continues to actively collaborate with national and international research institutes and scientific centers, ensuring stable funding and support for research projects. One of the key focus areas is the commercialization of scientific developments, allowing for the attraction of additional funding to implement projects in the real sector of the economy. The university also has an actively functioning Scientific and Methodological Committee and a Professors'

Office, which serve as advisory bodies within research and educational activities. As part of their initiatives, masterclasses and round tables have been organized.

The university annually hosts two international scientific and practical conferences, which in the 2023-2024 academic year gathered a total of 1,057 participants from 10 countries. As a result, two collections comprising nine volumes were published, including 815 research papers. It has also become a tradition for the university to organize winter scientific and methodological schools, inviting experienced speakers in the field of scientific research and methodological development. This year, 67 participants received certificates upon completion.

As part of its priority research areas, the university is implementing several major research projects aimed at addressing current challenges in information technology, law, economics, urban studies, environmental sciences, and the humanities. These projects include those supported by grants from the Ministry of Science and Higher Education as well as international organizations. In previous years, the university successfully completed two research projects, with their results integrated into the educational process and commercialized through joint programmes with partners. Over the past academic year, 223 authors received certificates of authorship, and 46 protection documents were issued. The university funded the registration of all these protection documents, amounting to over 500,000 tenge. Over the last two years, faculty members have published 73 works through the university's printing house, 13 including textbooks, 44 teaching manuals, 9 monographs, and 7 methodological guidelines for academic disciplines.

### 2.2.3 Infrastructure: Condition of Campuses, Availability of Modern Educational and Research Laboratories

The infrastructure of Turan-Astana University plays a key role in ensuring a high-quality educational process and scientific activity. The university is committed to the continuous renewal and modernization of its material and technical base, creating comfortable conditions for students and faculty while maintaining a high level of educational and research opportunities.

The university has several academic blocks equipped with everything necessary for a full-fledged learning process. In the 2023-2024 academic year, a new eight-storied educational building was put into operation, and significant renovation and refurbishment work was carried out on existing facilities, improving conditions for both students and teachers. University buildings are equipped with modern ventilation, security, and digitalized learning systems. Additionally, regular improvements are made to dormitory living conditions, contributing to an increase in the number of non-resident and foreign students.

Thus, the new eight-storied academic campus, covering a total area of 8,000 square meters, features 47 well-equipped classrooms with specialized laboratories and offices, 19 modern administrative offices for management, a spacious reading hall with book storage, a modern conference hall, a media and co-working center, a business incubator, archive rooms, and a university printing house. All this allows more than 1,500 students to study simultaneously in the new campus. Additionally,

the campus has a "server room" equipped according to all standards and the latest technology, which provides all campuses of the university with high-speed Internet, internal and external IP telephony, video surveillance and fire safety systems, as well as an intelligent access control system with Face ID facial recognition.

The campuses are equipped with modern classroom complexes featuring multimedia technologies, enabling lectures and seminars to be conducted in a hybrid format. This allows students to participate in educational activities both in person and online, significantly expanding learning opportunities. The campuses also provide areas for group work, individual study, and recreational spaces, creating a more comfortable and productive educational environment. Favorable conditions have been established for lectures, seminars, and practical training sessions. The continuous development of material and technical base enhances the overall reputation of the university, which has already allowed us to attract not only students but also partners from the academic and business community.

Particular attention is given to the development of research infrastructure at the university. In recent years, the university has actively invested in the creation and modernization of educational and research laboratories. Currently, the university has more than 20 modern educational laboratories equipped with the latest technologies and specialized equipment for practical training and scientific research.

The university's DigitalLab, as mentioned above, includes the transnational corporations' laboratories "Huawei ICT Academy" and "CISCO Networking Academy", with which memorandums have been signed, and training sessions are already being conducted. Additionally, the scientific and academic process incorporates laboratories such as "Robotics and 3D Printing", "Artificial Intelligence and Cybersecurity", "Information Systems Design", and "Programming". Together, these facilities support the operation of approximately 200 computer units and 8 large interactive panels with built-in processors.

One of the key achievements has been the opening of laboratories in the fields of artificial intelligence, robotics, media technologies, design, simultaneous translation, correctional psychology, and others. These facilities enable advanced research and the integration of innovative technologies into the educational process. The laboratories are equipped with high-tech computers, specialized software, and experimental equipment, fostering active student engagement in scientific research.

The university is also developing joint laboratories with industrial partners, ensuring a strong connection between theoretical knowledge and practical skills. This allows students not only to master the latest technologies but also to apply them in real projects in collaboration with companies and research institutions. Special attention is given to interdisciplinary research, which is actively supported by the university. In the 2023-2024 academic year, the university successfully launched new digital laboratories of transnational corporations, including the "Huawei ICT Academy" and "CISCO Networking Academy". A digital agreement was signed with CISCO to open a networking academy at the university, providing students with online courses in cybersecurity and Python programming. Another step toward innovation was the signing of a memorandum of cooperation with Huawei to open an ICT academy at the university. Two of our leading teachers completed a two-

week training programme at the company, receiving certificates that authorize them to provide online training to students. As a result, students have already begun receiving their own certification upon completing these courses. All these initiatives enable the university to conduct research in priority areas for Kazakhstan.

The university's infrastructure development expenditures reached a record level in the 2023-2024 academic year, totaling 334.4 million tenge. These funds were allocated to significant improvements across various areas. A substantial portion of the funding was directed toward the development of digital infrastructure and the purchase of new computer equipment for intelligent systems laboratories, as well as the upgrading and implementation of software, including the Platonus 6.0 system and new modules for optimizing academic processes. The university continued its investment in online education by purchasing Coursera licenses, allowing students to access unlimited courses. Additionally, significant attention was given to the development of the library and information center, upgrading the university's furniture inventory, constructing a sports facility, and purchasing laboratory equipment for specialized departments. It is important to note that these investments were made without taking into account the cost of constructing a new academic building, which emphasizes the university's large-scale efforts to modernize its infrastructure to improve the educational process and create comfortable conditions for students and teachers.

In the coming years, the university plans to further expand its infrastructure, including the construction of a new nine-storied residential complex for teachers and students, as well as an increase in the number of research laboratories. A key priority is the creation of new educational spaces that meet international standards, along with the development of innovation centers to support student startups and entrepreneurial initiatives. One of the major projects includes the construction of a modern student dormitory and a new paid parking facility for students and teachers, which will significantly improve the conditions for learning and working on campus.

Thus, Turan-Astana University is actively developing its infrastructure, providing students and teachers with all the necessary resources for high-quality education and scientific research. Modernization of campuses and laboratories remains a key priority in the strategic development of the university.

### 2.2.4 Internationalization and Global Cooperation

Turan-Astana University, which trains personnel in educational programmes in the humanitarian and economic profile, design, service and tourism, is one of the largest universities in its region, and holds high positions in national rankings. Over more than 25 years of operation, the university has produced approximately 18,000 specialists, including public and state figures of the Republic of Kazakhstan, well-known media personalities, and successful entrepreneurs. The university is continuously evolving, expanding its academic base, and launching new, modern educational programmes. One of the key components of its success is its strong international partnerships.

Today, universities in Kazakhstan must align with international standards in educational services. Turan-Astana University collaborates with 54 universities from 12 countries. The university maintains long-term partnerships with LUM University (Italy), San Pablo University (Spain), the University of Surrey (England), Erzincan Binali Yıldırım University (Turkey), Varna Free University named after Chernorizets Hrabar (Bulgaria), Burgas Free University (Bulgaria), Pomeranian Academy in Słupsk (Poland), MATE University (Hungary), and others.

In the 2023-2024 academic year, the university actively collaborated with universities in China, as student interest in the country, its language, and culture continues to grow. This is hardly surprising, given the global focus on China's rapidly developing economy and technological advancements. The university signed three agreements with universities in China: Northwest University of Agriculture and Forestry, Northwest University of Political Science and Law, and Chang'an University. Cooperation takes various forms, including student and teacher exchange, inviting foreign professors to give lectures and consult, scientific internships for teachers, joint research work on projects, organizing conferences, seminars, co-supervision of doctoral students (PhD), foreign student practice and continuation of their education in a master's programme, joint summer and winter schools and much more. For example, in May 2024, teachers from the Department of National and International Law completed an internship at the Northwest University of Political Science and Law and were hired by the university's research center to conduct joint research. Students studying in the "International Law" and "Jurisprudence" programmes received invitations to study at this university under the mobility programme in the fall and spring semesters of the 2024-2025 academic year. Prior to this, in November 2023, these students participated in an international forum hosted by Chang'an University to mark the launch of the China-Central Asia Alliance for training professionals in transport infrastructure development. They have now been invited to the upcoming forum, "Education within the Belt and Road Initiative: International and Regional Cooperation", scheduled for May 2025.

The University also actively interacts with representative offices of international organizations and foreign foundations, the diplomatic corps accredited in the Republic of Kazakhstan, participates in projects of the European Union programmes, in particular in the projects of the Erasmus+ programme.

In the 2023-2024 academic year, more than 20 students of the University studied at universities in Europe, such as the University of December 1, 1918 Alba Iulia (Romania), the Pomeranian Academy in Slupsk (Poland), Janos Kadolini University (Hungary), the Technical University in Rzeszow (Poland) and others.

Under the programme of the Ministry of Science and Higher Education of the Republic of Kazakhstan "Attracting Foreign Specialists to Universities of the Republic of Kazakhstan", the university annually invites scientists from universities in Europe, Great Britain, and China. We also attract foreign scientists at our own expense - today, our staff includes more than ten professors from abroad who give lectures to students, master's students, and doctoral students. For example, participation in the SES project (Germany) allows us, based on submitted applications, to invite foreign experts to exchange experiences, conduct master

classes in the field of IT and tourism, and train faculty members in modern teaching methods. Under this project, in the 2023-2024 academic year, SES expert Professor Klaus Subtil gave lectures to our students. After evaluating their knowledge and skills through exams, he gave them a highly positive assessment. For several years, Professor Sufiyan Bin Uzair (India) has also been delivering lectures to undergraduate and master's students.

The university is a member of the International Association for the Exchange of Students for Technical Experience (IAESTE), which provides our students with opportunities to undergo internships in Hungary, Germany, Turkey, and the Czech Republic. The association organizes foreign internships in such fields as computer technology, fundamental and applied science, design, and others. More than 30 students of the educational programmes "Tourism" and "Restaurant and Hotel Business" completed internships in large hotels in Turkey in the summer of 2024. Doctoral students of the university completed an internship at Omsk State Agrarian University (Russia) and Northwest University of Agriculture and Forestry (China), an internship is planned at Altınbash University (Türkiye).

## 2.2.5 Student profile: Academic Performance, Involvement in Scientific and Entrepreneurial Projects

The student community of Turan-Astana University is one of the key factors contributing to the development of scientific, educational, and entrepreneurial initiatives. In recent years, there has been a positive trend in the increasing number of international students, academic performance growth, and active student participation in scientific research and entrepreneurial projects.

The university actively fosters international cooperation and academic mobility programmes, which contribute to the growing share of international students. Currently, more than 150 international students from various countries - including Azerbaijan, Belarus, Kyrgyzstan, Germany, China, Mongolia, Russia, Turkmenistan, Turkey, Uzbekistan, and Tajikistan - are enrolled at the university. This reflects the university's strong appeal to international students, as well as the competitiveness of its educational programmes in the international market.

To support foreign students, the university has developed specialized adaptation programmes, Kazakh and Russian language courses, and provides all necessary conditions for comfortable study and living. In the coming years, the university plans to further increase the number of foreign students, expand exchange programmes, and introduce new joint educational programmes with foreign partners.

Turan-Astana University places great emphasis on the academic performance of its students, as evidenced by a steady increase in academic achievement indicators. In the 2023-2024 academic year, the average student GPA reached 70%, reflecting improvements in the quality of the educational process and higher learning outcomes.

To support academic performance, the university has implemented a student performance monitoring system that allows for the timely identification of academic challenges and the provision of necessary support. Within this system, the university conducts regular advisory consultations with advisors and offers academic support programmes, including additional classes, preparatory courses, and soft skills training. During the 2023-2024 academic year, the university provided social assistance to 286 students, amounting to a total of 97.4 million tenge. This assistance included rector's grants, various tuition fee discounts, and a scholarship named after Toktar Aubakirov.

In the 2023-2024 academic year, Turan-Astana University hosted the Republican Student Subject Olympiad in the field of "Law" under the "Jurisprudence" educational programme. The event was held in an offline format and brought together approximately 90 participants from 27 universities across the country. The event was organized at a high level, with our specialists from the Department of Digital Technologies successfully deploying an Olympiad and testing system based on the Moodle platform.

Additionally, our students demonstrated outstanding achievements in the Republican Student Subject Olympiad (RSSO) organized by the Ministry of Science and Higher Education of the Republic of Kazakhstan. Our students took 1st place in the "International Law" educational programme under the guidance of M. Mukatayev. Students from the "Tourism" programme took 3rd place in Almaty (supervised by S.N. Atikeeva, M.Kh. Karazhanova, E.E. Galiakbarov, and T.Yu. Yeremenko), while students from the "Restaurant and Hospitality Business" programme took 2nd place in Karaganda (supervised by S.N. Atikeeva, M.Kh. Karazhanova, and A.S. Baizakova).

Additionally, at the Republican Competition for Master's Research in Almaty, master's students from the "Tourism" educational programme took 3rd place under the supervision of M.Zh. Kamenova and S.N. Atikeeva.

Active student engagement in scientific and entrepreneurial projects is one of the university's key priorities. In recent years, the number of students participating in research and startup projects has significantly increased. Currently, more than 30% of students are involved in scientific projects and research programmes, demonstrating a high level of engagement in academic activities.

The university actively supports student startups and entrepreneurial initiatives through the Entrepreneurship Center, as well as by encouraging student participation in grant competitions for startup funding. In previous years, several student projects have received national and international awards, with the total amount of attracted grants exceeding 10 million tenge. This demonstrates the university's success in preparing students for launching and developing their own businesses.

In the future, the university plans to expand opportunities for students in scientific research and entrepreneurship, increase the number of startups created by students, and more actively attract industrial partners to implement joint projects.

### 2.3 SWOT-analysis of the University's Activities

Thus, the analysis of the condition of activity of Turan-Astana University determines the following.

#### **Strengths:**

Digitalization of the Educational Process: The university actively integrates modern digital technologies to enhance the learning experience. The updated Platonus 6.0 system and new modules improve the management of educational activities, ensuring transparency and efficiency across all processes. Platforms like Coursera have been introduced, providing students with access to global online courses and expanding their educational opportunities. In addition, a Help Desk has been created and is actively functioning for technical support, which improves the quality of interaction between students and teachers. The university also cooperates with global corporations such as Huawei and Cisco, opening Huawei ICT Academy and Cisco Networking Academy on the basis of the university, which allows students to study programmes in the field of information technology and security.

Well-Developed Research Infrastructure: The university has completed the construction of a new eight-storied academic building equipped with modern classrooms, laboratories, and learning spaces. This new building significantly enhances the conditions for both students and teachers. The university actively invests in equipping laboratories focused on artificial intelligence, robotics, as well as humanities and social sciences. These laboratories provide students and teachers with opportunities to engage in modern research and innovative projects, strengthening the university's scientific potential. Additionally, student and family dormitories for the university's teaching staff are being further developed.

International-Level Accreditations: The university is actively developing an accreditation system for its educational programmes at the international level. To date, 22 educational programmes of the university have been accredited by ACQUIN, with 17 of them receiving the maximum accreditation period of eight years. Additionally, the university has successfully undergone two institutional accreditations: one with ACQUIN and another with the national agency IQAA, reaffirming the high standards of its educational process and management. Several educational programmes have also been accredited by IAAR and IKCA agencies.

Academic Integrity System: The university pays special attention to issues of academic integrity and transparency in the educational process. A comprehensive plagiarism detection system has been implemented, including checks for AI-generated content in all written assignments. Examinations follow a blind grading format to eliminate subjectivity in assessment. Additionally, the university actively promotes the principles of academic integrity through special codes and educational programmes aimed at raising the awareness of students and teachers. This helps maintain a high level of trust in the quality of the educational process.

Graduate Employment Rate: The university demonstrates stable graduate employment rates of over 80% for both bachelor's and master's degree holders. This achievement highlights the high demand for graduates in the job market and the quality of student preparation. Strong partnerships with employers and relevant academic programmes contribute to the successful integration of graduates into the professional environment.

Managerial Flexibility and Level of Financial Independence: As a private university, the university has a high degree of flexibility in making management

decisions and promptly responding to changes in the external environment. The absence of the need to participate in public procurement and lengthy approval processes allows for faster implementation of projects and adaptation to challenges, which provides a significant advantage in a competitive educational environment.

#### Weaknesses:

Scientific potential: the university's scientific activity in internationally ranked journals remains at an insufficient level, which reduces its presence and reputation in the global scientific community. In addition, the number of scientific projects supported by grant funding and project-targeted programmes is also limited. Strengthening work in this area and actively attracting grant resources can become a catalyst for the growth of the university's scientific potential. The university journal "Izvestiya Universiteta Turan-Astana" is not included in the official List of scientific publications recommended by the Committee on Scientific and Technical Education of the Ministry of Education and Science of the Republic of Kazakhstan. This limits its recognition and popularity among the scientific community and reduces the possibility of publications that can be counted for domestic researchers. The inclusion of the journal in this list will be an important step to raise scientific level and to attract more authors.

Dissertation Council and range of doctoral programmes: the university faces limitations in the area of training PhDs due to the lack of its own dissertation council that forces doctoral students to seek opportunities to defend their dissertations at other universities. In addition, there is currently only one doctoral programme in economics that limits opportunities for doctoral students who want to develop in other scientific fields. Opening new doctoral programmes and creation of its own dissertation council would help to strengthen the university's research potential and attract more students to PhD programmes.

*Internationalization:* the level of internationalization remains low that limits the ability to attract international students and faculty. The lack of a sufficient number of programmes in foreign languages and weak participation in international exchanges and partnerships reduces the university's attractiveness on the global stage. In order to increase competitiveness, it is necessary to strengthen international cooperation and expand the number of educational programmes in English.

Limited number of startups and entrepreneurial initiatives: Although the university strives to develop entrepreneurial initiatives, the current level of student and faculty participation in startups remains low. Insufficient support and the absence of a full-fledged ecosystem for startups limit the university's potential in this area. It is necessary to intensify startup support programmes and create platforms for the commercialization of scientific developments to improve the situation.

Military Department: there is no military department at the university, so it reduces the attractiveness of the educational institution for applicants who wish to combine their studies with preparation for a military service. The introduction of a military department could increase students' interest to get additional skills and opportunities in military training.

#### **Opportunities:**

International cooperation expansion: the university has significant potential for international cooperation expansion with leading universities and research centers around the world. Participation in the Erasmus+, Horizon Europe and other international initiatives opens up new opportunities for academic mobility of students and teachers. This will strengthen university ties, increase internationalization and attract foreign students and partners for joint research projects.

Development of new educational programmes and directions: the creation of new educational programmes, especially in the field of IT, engineering and social areas will help the university to increase its competitiveness in the market of educational services. The emphasis on interdisciplinary areas and programmes related to digital technologies and sustainable development will attract more students focused on the future and modern technologies.

Development of research and innovation: the university has good prospects for the development of a startup ecosystem and a support of student entrepreneurial initiatives. The creation of programmes for training young entrepreneurs and the development of innovation centers can stimulate the launch of successful startups based on the university, which will strengthen its position as a platform for developing entrepreneurial skills and commercializing scientific developments. The university also has significant opportunities to attract additional funds through participation in national and international grant programmes. Active participation in such projects will not only expand the university's research base, but also enhance its prestige at the national and international levels, strengthening its scientific reputation.

Implementation of hybrid and distance learning forms: continuing to work on the implementation of hybrid (blended learning) and distance learning forms allow expanding access to education for students from different regions, including foreign ones. It could be an important step in the development of the university, increasing its accessibility and popularity among applicants, especially in the context of global digitalization.

#### **Threats:**

Competition with other universities: Competition for students, faculty and research grants is intensifying at both the national and international levels.

Changes in legislation and educational standards: possible changes in education and funding policies may influence private sector universities.

Risks associated with global economic changes: factors such as crises or pandemics may influence the labour market that will be reflected on graduate employment and research funding.

*Problems with adaptation to new technologies:* despite the active implementation of digitalization, the rapid growth of technologies may require significant resources to adapt and update infrastructure.

### 3. MISSION, VISION, VALUES AND PROSPECTS FOR THE DEVELOPMENT OF THE UNIVERSITY

#### **Mission of University:**

To prepare specialists and leaders who are able to implement innovations and develop science, business and society, creating effective solutions to current challenges through the integration of technology, research and practical experience.

#### **Vision of University:**

By 2029 Turan-Astana University will have been an intellectual hub for creative minds, bringing together science, technology, and entrepreneurship to address global challenges. We will be a place where students and faculty work together to develop breakthrough ideas that change reality. The university will be a platform for launching careers that transform industries and society, creating leaders who can influence the future.

#### **Values of Turan-Astana University:**

#### 1. Innovation and creativity

We value and encourage the pursuit of new ideas and solutions that contribute to progress. The University becomes a platform for bold experiments and breakthrough technologies, allowing students and teachers to find unconventional ways to solve current problems.

#### 2. Academic integrity

High standards of academic integrity are the foundation of our educational process. We strive to ensure that every student and teacher adheres to the principles of honesty, respect and transparency in their work.

### 3. Entrepreneurial spirit

We encourage initiative, leadership and a willingness to take responsibility. The University supports entrepreneurial initiatives of students and staff, helping to develop ideas into real projects and start-ups that can change industries and society.

### 4. Engagement and partnership

The University actively participates in the development of society and the region, supporting local communities through education, research and social projects. We value the power of partnership and collaboration between science, business and government institutions, creating joint projects aimed at solving urgent problems and transforming the economy and society.

### 5. Flexibility and adaptability

As a private university, we strive to respond quickly and flexibly to changes in the world and economy. The university adapts its educational programmes and projects to modern challenges, offering students relevant knowledge and skills that are in demand in the labor market.

#### 6. Focus on the future

We focus on long-term development and prepare students for the challenges of tomorrow. Progress and sustainability are important principles that guide us in achieving the goals of the university and society.

#### **Prospects for the Development of the University**

#### 1. Integration of science and entrepreneurship

The university will actively develop science and entrepreneurship through the creation of scientific startups, business incubators and accelerators that will allow students and teachers to implement innovative projects and bring them to the market. Such integration will strengthen the connection between science and business, creating a platform for the commercialization of scientific discoveries.

### 2. Hybrid and online learning with artificial intelligence

Digitalization of the educational process will become an important area. The university will introduce hybrid forms of education and use artificial intelligence technologies to adapt programmes to the needs of each student that will expand access to education and improve its quality.

### 3. International cooperation and internationalization

The university should become a platform for international exchanges, creating academic mobility programmes and attracting foreign students and teachers. It will increase the competitiveness of the university and strengthen its position in the international arena.

### 4. The development of competencies for the digital economy

The university will implement programmes aimed at training specialists for the digital economy in such areas as artificial intelligence, data analytics, cybersecurity and fintech. It will allow graduates to successfully integrate into developing sectors of the economy.

### 5. Sustainable development and green technologies

The introduction of sustainable development principles into the curriculum and research will be a priority. The university should become a center for research and implementation of "green" technologies, which will allow to prepare specialists for the economy of the future, focused on environmental sustainability.

### 6. Improving the quality of education through international accreditation

To improve the quality of educational programmes, the university should strive for international accreditation that will increase its status and trust from students and employers. The introduction of advanced educational standards will ensure the competitiveness of graduates in the global labor market.

The university should also strive for international certifications such as ACCA, CFA and others, which will allow graduates to obtain internationally recognized qualifications. These programmes will be integrated into the curriculum that will enhance the competitiveness of students in the global labor market and increase the trust of employers. Accreditation of this level will strengthen the university's position as a leader in training specialists for the international economy.

#### 7. The development of regional and social influence

The university should become a key driver of regional development, implementing programmes aimed at supporting local initiatives, the development of social infrastructure and economic revitalization of regions. It will strengthen the role of the university as an active participant in the life of society.

#### 8. Emphasis on transdisciplinary research

The University will foster transdisciplinary research, bringing together knowledge from different fields: science, technology, arts and business to tackle complex global challenges. It will broaden research horizons and enhance scientific potential.

### 9. Digitalization of management and analytics

The development of digital tools for university management and educational processes will be an important step. The university will continue to develop digital management tools and educational processes, introducing elements of smart university. It involves the use of artificial intelligence technologies, big data and automation to improve the university's work. The introduction of analytical systems for tracking student performance, resource planning and improving management efficiency will make the university more flexible and responsive, meeting the requirements of the time.

### 10. Leadership in training personnel for state and public institutions

A private university can play a leading role in staff training for state and public institutions. The creation of specialized educational programmes in management, politics and public communications will allow graduates to take key positions in these sectors and influence social and political processes.

### 4. STRATEGIC DIRECTIONS, GOALS, TARGET INDICATORS AND TASKS FOR THEIR ACHIEVEMENT

### 4.1 Strategic Direction 1. Moving towards the Smart University model

## Goal 1: Complete digitalization of the educational process Target indicators:

- 1. 100% of educational programmes have been transferred to digital platforms.
- 2. Implementation of hybrid learning (blended learning) in 50% of courses by 2029.
- 3. Reduce the time required to complete administrative training tasks by 30% through automation.
- 4. Increase the number of students using the mobile application for learning to 90%.
- 5. 100% of written examinations and academic integrity checks through online proctoring systems.

### **Assignments:**

# 1. Implementation of Learning Management System (LMS) supporting hybrid and online learning, including interactive lectures and practical classes.

The LMS will be the main platform for managing the learning process, where students will be able to interact with teachers and participate in classes both online and in traditional formats. The platform will provide access to educational materials, course plans, assignments, as well as forums for discussions and interaction between students. The system will support webinars, interactive lectures and seminars with the ability to respond to questions and tests in real time. The LMS will also provide tools for creating practical classes that students can complete using simulators or virtual labs.

# 2. Development and integration of a mobile application for access to educational materials, monitoring academic performance and receiving feedback.

The mobile app will be the main tool for students, allowing them to have access to all the necessary educational resources at any time and from anywhere. In the app, students will be able to look through their curriculum, receive updates on the examinations and test results, and track their academic performance. It will also support to receive prompt feedback from teachers and tutors on completed assignments, projects, or examinations. In addition, the app will support the ability to exchange messages with teachers and classmates to ensure constant communication in the educational process.

## 3. Implementation of an online testing system and automatic checking of assignments.

This system will fully automate the student testing process, from test creation to automatic task verification. The platform will support various types of tests, including multiple-choice questions, open-ended responses, and matching exercises. Automated task verification will allow teachers to significantly reduce the time for verification and evaluation, ensuring objectivity and eliminating human factor.

Additionally, the system will generate detailed reports on test results, providing teachers with data on which topics students are experiencing the difficulties.

## 4. Integration of AI solutions for individual student performance monitoring and analysis of educational data

An AI-powered system will analyze students' academic achievements throughout their education, identifying weaknesses and offering solutions for improvement. AI will adapt learning paths for each student based on their performance, suggest additional study materials, or direct students to extra tutoring sessions. The system will also predict which students are at risk of failing exams or dropping out and will promptly notify teachers or advisors for timely intervention. This analytics-driven approach will help to create personalized learning recommendations and plans for each student.

# 5. Implementation of virtual and augmented reality technologies for practical training in technical and artistic disciplines

The use of virtual reality (VR) and augmented reality (AR) technologies will enable highly detailed and safe practical training sessions. VR simulators will replicate real-world situations in fields such as medicine, engineering, chemistry, and physics, allowing students to immerse in real practice without physically being in a laboratory. AR technology will integrate educational materials into real-world objects, helping students to understand processes and technologies in the context. These technologies will not only improve the quality of practical training but also reduce costs associated with equipment and materials.

## 6. Automation of student registration for courses and academic programmes through electronic platforms

An automated registration system will allow students to independently select courses, programmes, and learning paths via an electronic platform. Students will be able to view available study plans, enroll in courses, and check seat availability. This will simplify the process, eliminating the need for in-person interactions between students and administrative staff. Additionally, the system will support the automatic allocation of students into groups, reducing time spent on organizational tasks and enhancing efficiency.

## 7. Training for faculty and students on using digital tools through courses and workshops

Regular training for faculty and students on using new digital platforms and tools will be an essential part of digital transformation. Workshops will focus on improving digital literacy and awareness of effective technology use in educational process. Faculty will learn advanced online teaching methods, work with Learning Management Systems (LMS), and utilize VR/AR tools. Students will also have access to courses to help them master new technologies and tools for more effective learning.

### 8. Introduction of an electronic portfolio system for students to demonstrate academic achievements in real-time

Electronic portfolios will allow students to collect and present their academic achievements in one place. They will be able to upload projects, research papers, theses, and exam results. This will be useful both for instructors, who can track

student progress, and students, who can use their portfolios for internships or job applications. The electronic portfolio will be updated in real-time, enabling students to continuously add new skills and accomplishments.

# 9. Development of a system for monitoring academic performance with predictive risk analysis and improvement recommendations

This system will analyze student performance data to identify those at risk of academic failure. It will track grades, attendance, participation in lectures and seminars, and assignment completion. Based on this data, the system will generate predictive reports highlighting potential academic issues. For at-risk students, the system will provide personalized recommendations, including additional courses, faculty consultations, or group study sessions.

## Goal 2: Full digitalization of administrative processes Target indicators:

- 1. 80% of administrative tasks will be automated by 2029.
- 2. Processing time for administrative requests has been reduced by 40%.
- 3. The level of satisfaction of student and staff from the use of digital administrative services is at 90%.
- 4. All internal processes have been fully transferred to electronic document management.

#### Tasks:

# 1. Implementation of an ERP System for managing all university administrative processes, including finance, personnel, and Inventory

An Enterprise Resource Planning (ERP) system will integrate all key university administrative processes into a single platform. The system will automate financial flow management, including budgeting, expenditures, procurement, and payroll. It will also manage human resources, including recruitment, salary calculations, and benefits management. The ERP system will provide accurate inventory and equipment records, simplifying resource management and optimizing costs. This system will enhance transparency and enable real-time access to administrative data.

## 2. Automation of application processes for scholarships, allowances, certificates, and other documents via a unified electronic system

Creating an electronic platform for applications will streamline administrative processes related to scholarships, financial aid, certificates, and other documents. Students will be able to fill out and submit applications online, eliminating the need for in-person visits. The system will automatically verify application accuracy and forward them for processing. This will reduce processing time for applications and minimize errors. The university administration will be able to monitor the status of submission and processing of all applications in real time.

# 3. Complete transition to electronic document management for all university departments, including contract signing, orders and instructions.

The transition to electronic document management will ensure full digitalization of all internal university documents. The system will support the creation, editing, approval, and signing of contracts, orders, instructions and other official documents in electronic format. This will significantly reduce the time for processing and approving documents, as well as increase their security. The use of

electronic signatures and encryption will ensure the legal force of the documents and eliminate the risks of loss or forgery.

# 4. Development of an online platform for solving administrative issues related to the acceptance of applications, complaints, and suggestions from the students and staff

An online platform will serve as the primary tool for student and staff interaction with university's administrative services. The students and staff will be able to submit applications, complaints and suggestions through an electronic system that will ensure a transparency of the process and automatic routing of requests to the appropriate departments. The platform will allow to track the status of each request and receive notifications about its decision. This will reduce the processing time of requests and increase the satisfaction of students and staff with administrative services.

## 5. Automation of the registration process for student events, job fairs, and advanced training courses.

The creation of an automated registration system for all student events will allow students to easily sign up for events of interest to them, such as job fairs, professional development courses and other events. The system will manage the schedule, availability of seats, and automatic notification of upcoming events. Students will be able to register online, which will facilitate the process of planning and organizing events for the university administration. Subsequently, it will enable to analyze the statistics of student attendance and engagement.

## 6. Implementation of an electronic monitoring system for the financial and material resources of the university to increase transparency and efficiency.

This system will allow real-time monitoring of the movement of financial resources and the use of material resources of the university. The introduction of a digital monitoring system will help to manage the budget, monitor purchases and allocation of funds, as well as to analyze the effectiveness of the use of tangible assets. The system will also include tools for data analysis, which will allow to make decisions based on accurate and up-to-date information. The transparency of these processes will help improve the financial management of the university and increase the trust of all stakeholders.

## 7. Development and implementation of a system for accounting and managing employees' working hours and tasks through digital tools.

The employee time and task accounting system will automate the process of planning and tracking the work activity of teachers and administrative staff. The system will record working hours, project employment, task completion, and provide reports to management. This will improve human resource management, increase discipline, and allow for more efficient workload planning for employees. The system will also allow each employee to track their performance and receive prompt feedback on completing tasks.

## 8. Introduction of digital reports on the results of administrative processes for the university management.

The automated reporting system will allow to create detailed and visual reports on all administrative processes of the university. The management of the university will be able to receive regular reports on the performance of various departments, financial indicators, inventory status and other aspects. Reports will be generated automatically based on data collected by ERP and other systems, which will reduce reporting time and increase its accuracy. This will provide management of the university with the necessary information to make informed decisions.

# 9. Automation of the work of the admissions committee, from the submission of documents to the admission of students, including the application evaluation system.

Automation of the work of the admissions committee will simplify the process of submitting documents for applicants and reduce the processing time. A system will be developed for online application submission, document verification and automatic calculation of competition points. Automated evaluation of applications will increase the objectivity of the process and eliminate the human factor. The system will also include tools for tracking the application status and for applicants to receive notifications about the admission results. This will make the admission process more transparent and efficient.

# 10. Creation of a digital database for analyzing student satisfaction with administrative services with the possibility of automatic feedback processing.

A digital platform for collecting and analyzing feedback will allow students and university staff to evaluate the quality of administrative services provided. The system will collect data on how satisfied students with various aspects of the university's work, including the work of the admissions committee, human resources, finance, and other administrative departments. Automatic review analysis will allow to identify problem areas and promptly respond to the students and staff requests. This data will also be used for planning and improving administrative processes.

#### 11. Increasing the level of digital maturity of the university

One of the key objectives of the Turan-Astana University strategy is to consistently increase the level of digital maturity, which implies achieving full compliance with modern digitalization standards. The University strives to go beyond basic solutions and move towards integrated and scalable digital technologies that will ensure high efficiency of educational and administrative processes.

It is planned to implement full campus coverage with high-speed networks, use cloud and hybrid data management solutions, and create big data-based analytical platforms that can predict student academic performance and make management decisions. Special attention will be paid to the integration of educational and administrative systems to ensure their interconnectedness and operational management.

It is planned to implement full campus coverage with high-speed networks, the use of cloud and hybrid data management solutions, and creation of big data-based analytical platforms that can predict student academic performance and make management decisions. Special attention will be paid to the integration of educational and administrative systems to ensure their interconnectedness and operational management.

In addition, the university will develop a digital ecosystem, including the introduction of mobile applications for convenient access of students and teachers to educational resources, the use of artificial intelligence technologies to personalize learning, as well as the creation of virtual laboratories and platforms for hybrid learning. Measures will be implemented to ensure data security, including multilevel protection and integration with international standards.

These steps will allow the university not only to achieve a high level of digital maturity, but also to become a leader in the field of digital education, ready to integrate advanced technologies, ensuring competitiveness and sustainable development in the face of global challenges.

### Goal 3: Building an intelligent infrastructure on campus Target indicators:

- 1. 100% of the campus will be equipped with intelligent resource management systems by 2029.
- 2. Reduction of energy consumption by 25% through intelligent energy management systems.
- 3. Ensuring campus security through the use of AI and IoT-technologies at 100% of facilities.
- 4. The level of satisfaction of students and staff with infrastructural changes is at least 90%.
- 5. Increasing the number of intelligent solutions for building management (at least 10 solutions will be implemented by 2029).

#### Tasks:

# 1. Smart energy consumption: The introduction of intelligent energy management systems based on IoT for automation of lighting, heating and air conditioning in order to increase energy efficiency and reduce costs.

The smart energy system will be based on Internet of Things (IoT) technologies to manage all energy sources on campus. With the help of sensors, the system will automatically adjust lighting, heating and air conditioning depending on the time of day, the number of people in the room and weather conditions. For example, the system will reduce energy consumption in empty classrooms or optimize the use of lighting in open areas. This will not only reduce energy costs, but also make the campus more environmentally sustainable by reducing its carbon footprint.

# 2. Intelligent security systems: The installation of surveillance cameras with facial recognition and real-time monitoring using artificial intelligence to enhance security on campus.

An intelligent security system based on artificial intelligence (AI) and facial recognition will monitor all entrances and exits to the campus, as well as internal movements in buildings. Surveillance cameras with AI function will be able to recognize potential threats, detect suspicious activity and automatically notify the security service. Facial recognition will allow students, staff, and guests to be identified, increasing security on campus and ensuring prompt response to incidents. The system will also be integrated with access control points and emergency alarms.

# 3. Interactive student areas: Equipping recreation and study areas on campus with interactive panels and IoT devices that will allow students to adapt the space to their needs, from booking classrooms to controlling lighting.

The creation of interactive zones on campus will allow students and teachers to customize the space to their needs using IoT devices and digital dashboards. Lighting, air conditioning, and multimedia control systems accessible via smartphones or touchscreens will be installed in such areas. Students will be able to book classrooms or work areas through the mobile app, and teachers will be able to adapt equipment for lectures and seminars. These interactive spaces can also be customized for events and group activities.

# 4. Intelligent parking system: Implementation of intelligent parking systems with automatic seat control, parking reservations and payment via mobile applications.

The intelligent parking system will automate the parking process on campus. The system will monitor available parking spaces in real time and provide information to users via a mobile application. The students and staff will be able to book parking spaces in advance through the app, which will reduce the time spent searching for parking and ensure more efficient use of parking areas. Parking fees will also be integrated into the system, which will simplify financial transactions and increase user convenience.

# 5. Water Resources Management: Development and implementation of systems for monitoring and managing water consumption on campus, including the use of sensors to track leaks and conserve water.

The intelligent water management system will include sensors to monitor water consumption in buildings and open campus areas. The system will monitor water usage in real time, detect leaks, and provide automatic consumption control to optimize resource usage. Sensors can automatically turn on and turn off irrigation systems depending on weather conditions, which will help to reduce unnecessary waste of water. This solution will allow the university not only to save resources, but also to reduce the cost of water supply.

# 6. Wi-Fi networks and digital infrastructure: Full coverage of the campus with high-speed Internet using intelligent network resource management systems to maintain a stable connection and reduce congestion.

A Wi-Fi network with intelligent resource management will be implemented on campus to maintain uninterrupted Internet access. High-speed access points will be installed throughout the campus, including academic and public areas. The network resource management system will evenly distribute traffic and reduce congestion during peak hours, ensuring a stable connection for all users. The system will also optimize the connection quality depending on the number of connections to maintain a high level of performance even with a large number of users.

# 7. Smart lighting system: Installation of intelligent outdoor and indoor lighting systems that automatically adapt to the light levels and movement of people on campus.

Intelligent lighting systems will automatically adjust the lighting intensity depending on the lighting conditions and the presence of people. For example, in

open areas, lighting will be enhanced when people move at night, and in classrooms, lighting will adjust to natural light. This will help to save energy and increase the comfort for students and staff on campus. The system will be integrated with motion and light sensors, providing real-time adaptation.

# 8. Automated Building Management: Implementation of a Building Management System (BMS) to control all engineering systems (heating, ventilation, lighting, etc.) using artificial intelligence and automation.

The Building Management System (BMS) will integrate all the engineering systems of the campus into a single control center, using artificial intelligence to automate processes. BMS will monitor heating, ventilation, lighting, air conditioning, and water supply systems to optimize resource use and maintain comfortable conditions in buildings. AI will allow the system to predict possible malfunctions, optimize equipment operation depending on current conditions and save resources. This system will increase the overall efficiency of university infrastructure management.

# 9. Green technologies and sustainable development: Implementation of air quality monitoring systems, as well as the creation of intelligent solutions for managing green spaces and irrigation.

The University will use "green" technologies to monitor and improve the environmental situation on campus. Air quality monitoring systems will track pollution levels and provide recommendations for improving the campus ecosystem. Intelligent solutions for managing green spaces and irrigation will also be implemented, which will automatically regulate water consumption depending on weather and soil conditions. This will help to reduce water use and increase the campus resilience to climate change.

# 10. Electronic navigation systems: Installation of interactive kiosks and electronic maps on the campus to facilitate navigation of the territory for students, staff and guests of the university.

Electronic navigation systems based on interactive maps will help students, staff and guests of the campus easily find the necessary buildings, classrooms and services. Interactive kiosks will be installed at key points on campus and will allow users to enter information about their location and receive instructions on how to move to the right places. Electronic maps will also be available through mobile apps, which will simplify navigation for those who are visiting the campus for the first time or need help with orientation.

### 4.2 Strategic Direction 2. Development of Science and Innovation

### Goal 1: Increase in scientific publication activity and development of scientific infrastructure

### **Target indicators:**

1. An increase in publications in rating journals (Scopus, Web of Science) by 3-5 times by 2029, as well as from the List of the Committee for quality assurance in science and higher education of the Ministry of Science and Higher Education of the Republic of Kazakhstan.

- 2. The growing number of joint publications with international researchers.
- 3. Increase in the number of citations per publication (an increase of 25%).
- 4. Development and modernization of scientific infrastructure, including new laboratories and research centers.

#### Tasks:

#### 1. Development of the magazine "Izvestia" of the Turan-Astana University

A comprehensive programme for the development of the magazine will be implemented in order to enhance its reputation and include it in the List of publications of the governing body, and work has begun on inclusion in international databases. The main areas of work will be the creation and modernization of the magazine's website, the introduction of a DOI for each article, and the introduction of a double-blind review system for all publications. It is planned to actively involve authors and reviewers from the world's leading universities. The magazine will be published regularly, and all issues will be available electronically. An important step will be to apply for inclusion in the list of publications of the Committee for quality assurance in science and higher education of the Ministry of Science and Higher Education of the Republic of Kazakhstan.

### 2. Digitalization of scientific processes

A Research Information System will be implemented to automate and optimize scientific processes. It will ensure the integration of data on projects, grants and publications into a single digital space. This will simplify the process of submitting and tracking grant applications, managing publications and reporting. The introduction of analytical tools will ensure to effectively monitor scientific activity and key research performance indicators.

#### 3. Interdisciplinary research

The creation of interdisciplinary research centers will bring together scientists from different fields to solve complex scientific problems. These centers will develop projects aimed at sustainable development, green technologies, industry 4.0 and biotechnology. Joint projects of different disciplines will attract more funding and create innovative products at the junction of various branches of knowledge.

### 4. Development of scientific infrastructure

For the successful conduct of scientific research, the existing scientific infrastructure will be modernized, including the creation of new laboratories and research centers. This will enable scientists to conduct cutting-edge research in various fields, from IT to ecology. Financing will be attracted through Research and development (RD), and programme-targeted financing (PTF) projects, as well as grants from national and international foundations. Each new laboratory will be equipped with modern equipment for conducting experiments and research.

## Goal 2: Improve the quality and quantity of research projects and grants Target indicators:

- 1. An increase in the number of research grants and projects by 30%.
- 2. Increase in funded R&D by 20% by 2029.
- 3. The growing number of scholarship holders of the programmes of "Bolashak", "The Best University Teacher" and "The Best Researcher".

#### Tasks:

### 1. Attraction of grant financing projects

The University will actively participate in international and national grant financing programmes. Special attention will be paid to projects related to sustainable development and industry 4.0. Programmes will be developed to support researchers at all stages of application submission, including writing projects and managing grant funds. The University will also participate in competitions for funding from international organizations such as Horizon Europe and ERASMUS+. In addition, constant work will be carried out to increase the financing of the university's internal grants for conducting scientific research by teaching staff.

#### 2. Formation of an endowment fund

An endowment fund will be created to support long-term research projects and programmes of the university. The Fund will attract private investments and funds from external organizations to finance scientific research, scholarships for students and teachers, as well as to develop the university's infrastructure.

## 3. The growing number of Bolashak scholarship holders, the "Best University Teacher" and "Best Researcher" contests

The University aims to increase their number and to this end there will be introduced an early candidate training programme, which includes consultations on applying, preparation of documents and research projects. In addition, the university organizes trainings on the preparation of successful applications and cooperation with international partners, which will increase the chances of receiving scholarships and support programmes. It is also planned to work closely with graduates of these programmes to transfer their experience to new participants, which will ensure a steady increase in the number of winners and participants of these prestigious scholarship programmes.

### 4. Development of doctoral programmes

New doctoral programmes will be developed and implemented in the promising areas of science, including IT, law, social sciences and humanities. Special attention will be paid to creating programmees that will help doctoral students to actively participate in international projects and publish their work in the rating journals. A mentoring programmeme will also be introduced, which will provide support to doctoral students at all stages of their scientific activities. Post-doctoral studies are also planned.

#### 5. Creation of the dissertation Council

To increase the number of doctoral defenses, a dissertation council will be established that will cover all key scientific business areas. The Council will be accredited to accept and defend dissertations in the fields of economics, management and business. This will increase interest in doctoral studies and ensure the sustainable development of scientific activities at the university. Doctoral programmes will be integrated into international research projects, which will allow students to gain international experience.

### 6. Development of the Office of Professors and Scientific Support

The office of Professors will play a key role in in organizing research and accompanying them. Mentoring programmes will be implemented, in which

experienced professors will assist young researchers and doctoral students in project development and preparation of publications. The Office will also develop international scientific collaborations and coordinate participation in international conferences and forums.

## **Goal 3: Commercialization of scientific results and innovations Target indicators:**

- 1. Increase in patent activity by 3-5 times by 2029.
- 2. Increase in the number of startups created on the basis of the university by 30% annually.
- 3. Increase in revenues from licensing and commercialization of scientific developments.

#### Tasks:

### 1. Integration with Industry 4.0.

The University will actively collaborate with industry to implement research developments in Industry 4.0. This includes joint research, design development and the introduction of innovative technologies into production. Particular attention will be paid to the automation of production processes, the development of robotic systems and intelligent solutions for the management of production resources.

### 2. Establishment of a technology transfer and innovation center

The Technology Transfer Centre will commercialize scientific developments, patenting and bringing innovative products to the market. It will support startups by providing patent counselling, legal and marketing assistance, as well as attracting investors. The University plans to create accelerator programmes for start-ups, which will support scientists and entrepreneurs at all stages of development of their projects.

### 3. Development of patent activity

The University will provide its researchers with legal assistance and support in patenting. The patenting programme will include consultations on international standards and participation in innovation competitions. This will allow the university to increase the number of patents and licenses, which will bring additional income from commercialization of developments.

#### 4. International scientific collaborations

The University will strengthen links with international academic and industrial organizations, involving them in collaborative projects and research. These collaborations will increase access to new technologies, equipment and financial resources, as well as enhance research and product development.

# Goal 4: Integrate science into education and support young scientists Target indicators:

- 1. Increase the proportion of students participating in science projects by 50 per cent by 2029.
- 2. Increase in the number of winners of NIRS and Republican Student Subject Olympiads by 30%.
- 3. Increase in the number of publications created by students and young scientists in international rating journals.

#### Tasks:

### 1. Scientific collaborations and integration with scientific organizations

The University will actively collaborate with scientific organizations to implement joint projects and integrate students into scientific activities. This will allow students to participate in real scientific projects and gain experience in research centers. The University will also establish research laboratories and centers that will integrate students into Industry 4.0 and sustainability projects.

### 2. Support for students and innovative projects

Student scientific societies and laboratories will be established to develop students' scientific activity. The grant support programme will allow students to implement their research projects, while participation in competitions and Olympiads will allow them to showcase their talents at national and international levels. The University will also support start-ups created by students.

# 3. Support for scholarship holders of the Bolashak Programme, Best University Teacher and Best Researcher competitions

Scholarship holders of 'Bolashak' programme, 'Best university teacher' and 'Best researcher' competitions will be actively involved in scientific projects and international collaborations. The University will provide them with scientific resources and opportunities for professional development, as well as support their participation in research projects at the international level.

### **4.3 Strategic Direction 3. Quality Orientation**

## Goal 1: Introduce and develop a quality culture at the university Target indicators:

- 1. Increase the level of quality awareness among students and faculty to 95% by 2029.
  - 2. A 50% increase in the number of quality-related training events.
- 3. Increase personal involvement of faculty and staff in quality improvement processes.

#### Tasks:

- 1. The principle of 'Quality is Me' and personal responsibility. Each employee of the university will be trained to realize his/her personal responsibility for the quality of work performed. Implementation of the principle will be accompanied by training sessions and trainings that will help everyone to realize their role in creating high quality educational services.
- **2. Quality culture as a value.** The University will develop a programme to create a culture of quality where quality will become an important value in the work of every faculty member and student. Involvement will be encouraged at all levels of management through internal monitoring and audit programmes.
- **3. Awareness and involvement.** Continuous awareness of the importance of quality among staff and students through seminars, courses and internal communications. Regular training sessions for staff will be organized and students will have access to information materials and tools to assess the quality of learning.

# Goal 2: Improve educational programmes and processes with a focus on national and international standards

### **Target indicators:**

- 1. 100% compliance of educational programmes with state, external and internal quality standards.
- 2. Increase in the number of programmes accredited by international organizations by 40% by 2029.
- 3. Annual audit of all educational programmes for compliance with the standards of the Academic Integrity League.

#### Tasks:

- 1. Compliance with the state, external and internal quality assurance system. All University programmes will be reviewed to fully comply with state standards and external accreditation requirements. An internal audit system will be implemented to monitor the level of compliance of programmes with both state and international standards on an annual basis.
- **2. Application of the tools of the League of Academic Integrity.** The University will integrate the tools of the League of Academic Integrity into the educational processes: automation of examinations assessment, checking all written works for plagiarism, introduction of the blind assessment system. These measures will ensure a high level of transparency and fairness in educational processes.

# 3. Realization of the third mission of higher education institutions and social responsibility

The University will actively develop its social role by introducing programmes aimed at improving conditions in local communities and participation of students and teachers in social projects. Volunteer initiatives, co-operation with NGOs and government agencies will be organized to address current social problems. The University also plans to support sustainable development through educational programmes and projects focusing on ecology and social justice. An important part will be the development of students' social responsibility, involvement in community initiatives and civic engagement skills.

# $\label{thm:continuous improvement of educational processes through the implementation of small changes$

### **Target indicators:**

- 1. A 30% annual increase in the number of implemented improvements in educational processes.
- 2. A 20% improvement in students' academic performance through ongoing curriculum adjustments.
  - 3. Annual updates of at least 15% of all academic programs.

#### Tasks:

- 1. Principle of continuous improvement with a focus on small changes. The university will implement a system of small but regular changes in educational processes. Each department will strive for gradual improvements through the analysis of performance results, student and faculty feedback. A monitoring system will be established to track progress and improvements in real time.
- **2. Innovations in education and change management.** A support system for innovative solutions in the educational process will be created, including the implementation of modern technologies and programmes. The introduction of new

educational programmes (e.g., 6B032 Journalism and Information, 6B063 Information Security, and others) will become part of the continuous improvement policy.

### Goal 4: Development of human capital and creation of a healthy work environment

### **Target indicators:**

- 1. A 50% annual increase in the number of faculty members who have completed professional development programmes.
  - 2. Increase in employee satisfaction with the work environment to 90%.
  - 3. A 30% improvement in team efficiency.

#### Tasks:

- **1. Development of human capital.** The university will invest in faculty training and professional development. This includes enhancing digital skills, research competencies, and teaching excellence. Regular courses and seminars will enable each staff member to improve their professional skills.
- **2.** Creating a healthy work environment. To increase employee satisfaction, programmes supporting a healthy work environment will be implemented, including psychological support, improved working conditions, and burnout prevention initiatives. An internal communication system will be developed to enhance collaboration between departments.
- **3. Enhancing teamwork and collaboration.** The university will introduce programmes to encourage teamwork and interdepartmental cooperation, improving task and project efficiency. The creation of interdisciplinary teams will allow for faster adaptation to changes and the implementation of innovative solutions.
- **4. Formation of a high-quality student body.** The university will systematically work on attracting students with high academic potential, focusing on the results of national and international tests, Olympiads, and competitions. A key part of the strategy will be the development of programmes for gifted students, as well as the provision of grants and scholarships for top applicants. At the same time, an academic support system will be developed to facilitate students' successful adaptation and progress in their studies. The university will implement additional selection and training programmes to improve student quality, including enhanced career guidance efforts and increased student involvement in research projects.

# Goal 5: Improving teaching quality and developing new educational programmes

### **Target indicators:**

- 1. Implementation of new educational programmes with a focus on labor market demands and innovation.
- 2. Increase in the number of programmes that meet international standards and market requirements.
- 3. Engagement of students in educational programmes aligned with modern market needs, including IT, journalism, architecture, and other fields.

### Tasks:

1. Obtaining license supplements for new educational programmes. The university will acquire license supplements for new academic programmes,

including 6B032 Journalism and Information, 6B063 Information Security, 6B113 Transport Services, and others. This will expand educational opportunities and attract more students to in-demand programmes.

- **2. Enhancing teaching competencies.** A faculty development programme will be established to introduce modern educational technologies and methodologies. Professors will gain access to international training programmes, allowing them to adapt their teaching methods to evolving market and student needs.
- **3. Focus on cultural and organizational integration.** The university will actively promote a culture of integration, fostering a unified environment for all participants in the educational process. This will enhance collaboration between students, faculty, and administration, ultimately improving the quality of education and academic services.
- **4. Development of inclusive education.** The university will implement inclusive educational practices to ensure accessible learning for students with special educational needs. Support programmes will be developed, including adapted learning materials, specialized digital resources, and tutor assistance. Faculty training sessions will be organized to enhance their skills in working with inclusive student groups. Special attention will be given to creating an accessible environment across university campuses and digital platforms.

### **4.4 Strategic Direction 4. International Integration**

## Goal 1: Internationalization of educational programmes and management Target indicators:

- 1. A 50% increase in the number of educational programmes taught in English by 2029.
- 2. Achieving a 15-30% share of international faculty and specialists participating in the educational process.
  - 3. Development and approval of an internationalization concept by 2025.

#### Tasks:

- 1. Internationalization of management and structures. The university will implement international management practices, including the involvement of foreign specialists in leadership roles and strategic initiatives. An International Affairs Office will be established to coordinate all aspects of internationalization, ensuring the integration of global standards and best practices in university governance.
- **2. Internationalization of educational programmes.** To strengthen its global presence, the university will expand the range of programmes taught in English, making them more attractive to international students. This initiative will also enhance academic mobility and create opportunities for seamless integration of international students and faculty into the educational process.
- **3. Development of the internationalization concept.** A comprehensive internationalization concept will be developed and approved as a strategic foundation for expanding global partnerships and implementing international

educational standards. This concept will include mechanisms for promoting academic mobility, international programmes, and dual-degree initiatives.

# Goal 2: Strengthening strategic partnerships and expanding the geography of cooperation

### **Target indicators:**

- 1. A 40% increase in the number of strategic partners.
- 2. Strengthening research collaborations through joint projects with foreign universities.
  - 3. Participation in 10 international projects (including Erasmus+) by 2029.

#### Tasks:

- 1. Strengthening strategic partnerships. The university will actively develop collaborations with international universities and research centers to implement joint educational and research projects. A key focus will be participation in programmes such as Erasmus+ and other international initiatives, expanding the geography of cooperation and attracting external funding.
- **2. Expanding the geography of cooperation.** The number of strategic partners in various countries will be increased, with a special focus on regions with high academic and research potential (Europe, Asia, North America). To support this expansion, the university will participate in international exhibitions, conferences, and forums, fostering new connections and collaborative projects.

# Goal 3: Attracting international students and enhancing academic mobility

### **Target indicators:**

- 1. Increase the share of international students to 10-15% by 2029.
- 2. Increase student and faculty academic mobility by 10-25%.
- 3. Implement dual-degree programmes with five foreign universities.

#### Tasks:

- **1. Attracting and supporting international students.** The university will develop a strategy to attract international students, including improving study and living conditions. This will be supported by an active international marketing campaign and the creation of adaptation programmes for foreign students.
- **2. Promoting academic mobility.** To strengthen international engagement, the university will implement programmes that encourage academic mobility for both students and faculty. Opportunities for exchange programmes with foreign universities will be expanded, along with conditions for international specialists to teach on a long-term basis.
- **3. Joint and double diploma programmes.** The university will increase the number of double diploma programmes with international partners, allowing students to earn diplomas both in Kazakhstan and at foreign universities. These programmes will target students interested in building international careers.

# Goal 4: Strengthening research collaboration and participation in international projects

### **Target indicators:**

- 1. A 30% increase in the number of joint international research projects.
- 2. A 25-50% annual increase in publications in internationally ranked journals.

3. A 40% increase in funding through international grant programmes.

#### The tasks:

- **1. Strengthening research co-operation.** The University will strengthen research cooperation with foreign partners through the establishment of international research laboratories and centers. This will allow integrating the University's scientific achievements into the global scientific agenda and attract funding through international grants.
- **2. Participation in international projects Erasmus+ and others.** The University will actively participate in international cooperation programmes such as Erasmus+, Horizon Europe and others. This will enable the development of international projects that will provide funding, educational and research exchanges, and enhance the university's research potential.

# Goal 5: Diversification of funding sources through international cooperation

### **Target indicators:**

- 1. Increase the share of funding through international grants and projects by 20% by 2029.
- 2. Increase the number of projects funded through international organizations and foundations by 25%.
  - 3. Attracting international investment for educational and scientific projects.

#### Tasks:

- **1. Diversification of funding sources.** The University will develop a strategy for diversification of funding sources through international grants, partnerships and foundations. The main attention will be paid to participation in international grant competitions, attraction of foreign investors and development of projects supported by international organizations.
- **2.** Creating competitive advantages through international benchmarking. The University will regularly analyses its educational and scientific achievements against the background of world leaders. This will help to identify competitive advantages and outline areas for improvement that will help the university to remain competitive in the international arena.

# 4.5 Strategic Direction 5. Development of Entrepreneurship and Startup Culture

# Goal 1: Foster an entrepreneurial mindset among students and faculty members

#### **Target indicators:**

- 1. Increase the share of students engaged in entrepreneurial activities to 20 per cent by 2029.
- 2. Introduction of entrepreneurial programmes and courses in 50-80% of educational programmes.
- 3. Holding annual educational programmes and hackathons to develop entrepreneurial skills in 1000 participants.

#### Tasks:

- 1. Introduction of entrepreneurial courses and programmes. Entrepreneurship courses and modules will be introduced in all educational programmes of the university to teach students the basics of business, startup culture, project management and investment attraction. This will ensure the formation of entrepreneurial thinking among students and create a basis for their future entrepreneurial activities.
- **2. Creation of a startup incubator.** The University will create a startup incubator for students and faculty, which will provide consultations on business creation, marketing, finance and legal aspects. The incubator will become a platform for developing and testing business ideas, which will allow young entrepreneurs to develop their projects in a comfortable environment.
- **3. Development of practice-oriented training.** The University will actively attract successful entrepreneurs and experts from real business to conduct master classes, lectures and workshops. This will allow students to learn from real examples and apply their knowledge in practical projects.
- **4. Student's startups and projects support.** The University will develop a programme for supporting student's startups, including grants and mentorship. Students will be able to apply for startup funding and support programmes and will have access to university resources to implement their projects.
- **5. Organization of hackathons and competitions.** To stimulate innovation activity, the university will organize annual hackathons and startup competitions, which will create a platform for developing and promoting new ideas and technologies. This will be an opportunity for students to test their business ideas and attract investors and partners.

# Goal 2: Create conditions for commercialization of innovative projects and startups.

#### **Target indicators:**

- 1. Increase the number of registered startups to 30 launched by students and faculty by 2029.
- 2. Attracting 10-30 million tenge of investment in student and university startups annually.
  - 3. Creation of 5 innovative spin-off companies on the university basis by 2029.

#### The tasks:

- 1. Creation of a center for commercialization of innovations. The University will establish an innovation commercialization center to help students and faculty turn their research and business ideas into commercially successful projects. The center will provide support for patenting, licensing, and market promotion.
- 2. Supporting startups and small businesses through accelerator programmes. An accelerator programme will be created to support startups at the early stages of their development. As part of the programme, participants will have access to investment, mentorship and university resources to accelerate the growth of their projects.
- **3. Partnerships with businesses and investors.** The University will establish strategic cooperation with business incubators, venture capital funds and investors to provide students and faculty with the opportunity to present their startups and

attract funding. This will ensure the sustainable development of startups and commercial projects.

**4.** Creation of innovative spin-off companies. The University will support the creation of small innovative companies (spin-offs), which will work on the basis of university developments. This will give an opportunity to commercialize scientific achievements and implant them in the business environment.

# Goal 3: Development of entrepreneurial infrastructure and ecosystem Target indicators:

- 1. Full modernization, re-equipment and expansion of the business incubator and technology centers by 2029.
  - 2. Increase the number of partnerships with business and industry by 40%.
  - 3. Creating conditions for 30-50 startups to work on the university basis.

#### The tasks:

- 1. Creation and development of entrepreneurial infrastructure. The university will invest in the creation of business incubators, technology centers and coworking spaces where students and teachers can develop their startups and innovative projects. These centers will be equipped with modern technology and will provide access to resources for product development and testing.
- **2. Development of partnership with industry and business.** The university will expand cooperation with industrial partners, attracting companies for joint projects, internships and mentoring of students. This will create mutually beneficial conditions for the exchange of experience and the integration of university developments into real business.
- **3. Support for startup culture and innovation.** To strengthen startup culture, the university will host regular events such as innovation contests, meetings with entrepreneurs, conferences and startup pitches. This will create an active community of entrepreneurs and innovators among students and faculty.
- **4.** Training students and faculty on innovations and entrepreneurship. Trainings, seminars and workshops will be organized on the topics of startup management, development of business models and entrepreneurship, which will help students and teachers master key skills for the development of successful startups.
- 5. Creating a startup's support ecosystem. The university will create a startup's support ecosystem that will include investment funds, mentoring programmes, counseling, and access to resources. This will allow students and teachers to receive the necessary support to implement their ideas. Moreover, it is planned to develop a crowdfunding platform in this direction. The creation of a crowdfunding platform for financing entrepreneurial projects will allow the university to support innovations and startups of students, graduates and external partners, attract private investment in the development of promising ideas, as well as strengthen the entrepreneurial ecosystem through effective interaction between and project forming a sustainable investors initiators, for basis the commercialization of scientific and creative developments.

#### 5. EXPECTED RESULTS

By 2029, the implementation of the Turan-Astana University Development Programme will lead to the following key results:

- 1. Digitalization and Smart University Model Creation
- All educational programmes will be transferred to digital platforms, providing a complete transition to hybrid and online learning. 50% of all courses will be provided in a hybrid format, and 100% of written exams and tests will be hold through proctoring systems using artificial intelligence.
- The university will implement an ERP system that automates 80% of all administrative processes, which will reduce request processing time by 40%. The introduction of electronic document management in all departments of the university will increase the transparency and efficiency of processes.
- Smart campus management systems will be implemented, including energy conservation, security monitoring, lighting and air conditioning automation, which will reduce energy costs by 20%.
- By 2029, the university's mobile app is expected to be used by 90% of students to access study materials and track progress.
  - 2. Development of science and innovation
- Publication activity in international rating journals will increase by 30%, and the number of scientific grants will increase by 25%. The university plans to increase the number of doctoral programmes, as well as significantly expand participation in international scientific collaborations and projects.
- By 2029, the number of startups and innovative projects created by students and teachers will reach 30, and the volume of investments in student startups will reach 10 million tenge annually.
- The university will create 5 new innovative spin-off companies based on scientific developments. These companies will actively participate in the commercialization of scientific results and promote the interaction of science and business.
- It is also planned to form an endowment fund that will support research and innovative projects on an ongoing basis.
  - 3. Quality orientation
- All educational programmes will comply with state and international quality standards. By 2029, the university plans to increase the number of programmes accredited by international organizations by 40%.
- The involvement of faculty and students in quality improvement processes will increase to 95%. The standards of the League of Academic Integrity will be implemented, which will allow the university to become an example for other universities in the country in terms of academic ethics and quality.

- The percentage of student satisfaction with the quality of educational services will increase to 90%, and the indicator of teachers satisfaction with the academic load up to 92%.
  - 4. International integration
- The share of foreign students will increase to 10%, which will strengthen the university's position in the international arena. The university also plans to introduce two-degree programmes with international universities.
- The number of students and faculty participating in academic mobility programmes and international projects (e.g. Erasmus +) will increase by 50%.
- The geography of international partnerships will be expanded to 30 countries, which will create conditions for international scientific and educational projects.
- The university will be an active participant in global rankings and international accreditation programmes, which will increase its status on the world stage. The university's entry into the top 400 QS rankings among Asian universities.
  - 5. Development of entrepreneurship and startup culture
- The university will create conditions for the development of an entrepreneurial environment. There will be a complete modernization, re-equipment and expansion of the business incubator and technology centers, which will support the launch of 50 startups by 2029.
- It is expected to create and develop acceleration programmes for students and teachers, which will attract investment in university startups and increase their market attractiveness.
- The university plans to develop entrepreneurship and startup management training programmes, which will increase the number of students participating in entrepreneurial projects by 60%.

Thus Turan-Astana University will be the leading innovative and entrepreneurial university in Kazakhstan, which uses digital technologies for training, research and management by 2029. The implementation of the programme will ensure the high quality of education, strengthen the international positions of the university, and also create conditions for the successful commercialization of scientific research and the growth of entrepreneurship among students and teachers.

#### 6. RESOURCES FOR PROGRAMME IMPLEMENTATION

The following resources are required for successful implementation of the development programme of Turan-Astana University for 2025-2029:

#### 1. Financial resources

Implementation of the programme will require significant financial investments. Main directions of financial resources utilization:

Infrastructure modernization: Includes complete modernization and renovation of campuses, creation of smart technologies for university management, construction and renovation of laboratories, ensuring safety and sustainable energy consumption. To do this, the university will need to allocate finances from its own funds, as well as attract external investment, including through grant programmes and partnerships with businesses.

Investments in digitalization: The implementation of ERP system, Learning Management System (LMS), mobile applications, intelligent management systems and automation of administrative processes will require financial support. This is expected to create more transparent processes and reduce operational costs in the long term.

Support for scientific and entrepreneurial projects: A fund will need to be established to finance startups and innovative projects of students and faculty. Financial resources will be used to maintain startup incubators, conduct accelerator programmes and support spin-off companies.

Grants and international funding: To implement the programme of science and innovation development the university should actively participate in international grant competitions, such as Horizon Europe and Erasmus+. This will give an opportunity to attract additional funds for research and development of scientific projects.

#### 2. Human resources

Teaching staff: In order to implement educational and research projects, the university will need to increase and develop the teaching staff. It is important to attract highly qualified specialists from abroad, to develop the competencies of current staff, and to conduct professional development programmes. The university needs to strengthen international cooperation to attract foreign teachers, which will help to improve the quality of educational programmes.

Administrative staff: Implementing digital solutions and managing new processes will require the training of administrative staff and the involvement of IT and project management specialists.

Researchers and innovators: To develop science and innovation, the university must increase the number of researchers who will work in scientific laboratories and technology centers. This requires the creation of attractive working conditions, including competitive salaries, modern research resources and opportunities for professional development.

#### 3. Technological resources

Digital technologies: Successful digitalization of all processes, including the introduction of artificial intelligence and Big Data, requires the creation of modern

digital infrastructure. The university should acquire and implement modern software products (LMS, ERP, campus monitoring and management systems), which will ensure automation of both educational and administrative processes.

Research technologies and equipment: For the development of science and innovation it is necessary to purchase modern equipment for laboratories and research centers. The University will need to modernize the existing laboratory facilities and create new research centers to support scientific projects and innovations.

Technologies for startups: The creation and development of business incubators and gas pedals will require the introduction of technology solutions to support startups and entrepreneurial projects. This may include creating platforms for startups to communicate with investors, manage projects and assess their potential.

#### 4. Information resources

Access to international databases: Improving the research capacity of the university requires access to leading scientific databases, journals and publication platforms. The university should provide access to resources for researchers and students to maintain high publication activity and international collaboration.

Learning Resources: In order to implement educational programmes based on global best practices, it is necessary to provide access to international learning materials, courses and platforms such as Coursera and others. This will enable students and faculty to utilize the world's best resources for learning and development.

#### 5. Partner resources

International partners: To successfully implement the strategy, the university needs to expand its network of international partners. This includes universities, research institutes, corporations and venture capital funds. Cooperation with these organizations will help to attract new educational programmes, research projects and investments.

Business partners: The University needs to establish close ties with business to create spin-off companies, start-ups and commercialization of scientific developments. Interaction with the business community will help to obtain funding for start-ups and integrate innovations into the real economy.

### 6. Organizational resources

Creation of new units: Specialized units will be required to manage international programmes, entrepreneurship and research projects. These structures will coordinate internationalization, commercialization and start-up development activities.

Operational support: For all processes to work effectively, operational teams must be established to manage and support the implementation of digital solutions, research and start-ups. This will ensure the sustainability and flexibility of the implemented solutions.

Thus, for successful implementation of the development programme Turan-Astana University will need a significant amount of financial, human, technological, informational, partnership and organizational resources.

#### 7. ABBREVIATIONS AND GLOSSARY

#### **Abbreviations**

- 1. **ERP** Enterprise Resource Planning (Enterprise Resource Planning system)
- 2. LMS Learning Management System
- 3. **IoT** Internet of Things
- 4. **AI** Artificial Intelligence
- 5. **BMS** Building Management System
- 6. Wi-Fi Wireless Fidelity (Wireless Network)
- 7. **SCOPUS** International Bibliographic and Abstract Database of Scientific Publications
  - 8. **WoS** Web of Science (International Scientific Database)
- 9. **ACQUIN** Accreditation, Certification and Quality Assurance Institute (Accreditation, Certification and Quality Assurance Institute)
  - 10. **IQAA** Independent Agency for Quality Assurance in Education
  - 11. **SRDEW** Scientific Research and Design Experimental Work
- 12. **SSCI** Social and Sports Contribution Index (Social and Sports Contribution Index)
- 13. **iROS** Index of Research Orientation of Students (Index of Research Orientation of Students)
  - 14. **RSPO** Republican Student Subject Olympiad
  - 15. **RWS** Research work of students
  - 16. **PTF** Project-Targeted Financing
  - 17. EP Educational Programme
- 18. **FIBAA** Foundation for International Business Administration Accreditation (Foundation for International Business Administration Accreditation)
- 19. **MSHE RK** Ministry of Science and Higher Education of the Republic of Kazakhstan
- 20. **CQASHE** Committee for Quality Assurance in Science and Higher Education
  - 21. **QS** Quacquarelli Symonds (QS International University Rankings)
  - 22. **PG** Resolution of the Government
- 23. **QAA** Quality Assurance Agency for Higher Education, a British organization dedicated to the verification and accreditation of the quality of higher education.
- 24. **ABET** Accreditation Board for Engineering and Technology, an international organization that accredits educational programmes in engineering and related disciplines.
- 25. **AACSB** Association to Advance Collegiate Schools of Business, the leading accreditation organization for business schools worldwide.
- 26. **VR** Virtual Reality, a technology that allows the creation of artificial, fully immersive 3D worlds in which the user can immerse themselves using special devices (e.g., VR helmets).
- 27. **AR** Augmented Reality, a technology that superimposes digital information (images, text) on real objects with which the user interacts.

- 28. **RSCI** Russian Science Citation Index, a database of scientific publications used to assess the publication activity of scientists from Russia and the CIS.
- 29. **SES** Senior Expert Service, an international programme that provides consulting services of experienced professionals in various fields to support organizations and companies.
- 30. **GPA** Grade Point Average, a system for evaluating students' academic performance based on the average of their grades.
- 31. **ACCA** Association of Chartered Certified Accountants, one of the world's largest professional associations providing certification and training in accounting and finance.
- 32. **CFA** Chartered Financial Analyst, one of the most prestigious international certifications in financial analysis and asset management.
- 33. **DOI** Digital Object Identifier, a unique identifier for publications and other digital objects used to identify and search for them on the Internet.
- 34. **NGO** Non-state (non-governmental) organization, public or charitable organization, which is engaged in solving social, cultural, educational or environmental problems without receiving direct government funding.

#### Glossary

- 1. **Digitalization** The process of digitizing all University processes and operations to increase efficiency and transparency.
- 2. **Accreditation** Official recognition of an educational programme or institute as meeting international or national quality standards.
- 3. **Internationalization** The process of integrating international aspects into university activities, including academic mobility, participation in international projects and cooperation with foreign universities.
- 4. **Hybrid Learning** A combined form of learning that combines an online format with face-to-face instruction.
- 5. **Interdisciplinary Research** Research that is conducted at the intersection of several scientific disciplines to create new knowledge and technologies.
- 6. **Spin-off Company** A small business established on the basis of research or development by a university to commercialize innovative projects.
- 7. **Entrepreneurial Ecosystem** A system that supports the development of startups and entrepreneurial initiatives, including incubators, gas pedals, venture capital funds and investors.
- 8. **Publication Activity** The level of participation of teachers and students in the publication of scientific articles in international journals and databases.
- 9. **League of Academic Integrity** An association of higher education institutions that monitor compliance with the standards of academic ethics, honesty and transparency in the educational process.
- 10. **Startup** A new company or project that is being developed and implemented into a business with high growth potential.
- 11. **Endowment Fund** A long-term endowment fund formed by donations and used to finance various university projects.

- 12. **Erasmus**+ European Union programme aimed at supporting educational, professional and youth mobility, as well as international cooperation in the field of education, youth policy and sport.
- 13. **Horizon Europe** The European Union's Research and Innovation Core Programme for 2021-2027 to fund research projects and innovations to address global challenges.
- 14. **Smart University** The concept of "Smart University", which implies the integration of digital technologies and innovative solutions for the automation of educational and administrative processes. It includes the use of artificial intelligence, the Internet of Things (IoT), e-learning platforms and intelligent campus management systems to increase efficiency and improve the quality of education.
- 15. **SWOT-analysis** A strategic planning method that is used to assess an organization's strengths and weaknesses, as well as the opportunities and threats it may face.
- 16. **Soft Skills** Non-professional skills necessary for successful teamwork and socialization include skills such as communication, teamwork, time management, leadership, and adaptability.
- 17. **Times Higher Education** One of the world's leading publications that publishes annual rankings of universities on various indicators, including research, teaching, international cooperation and impact on society.
- 18. **Coursera** One of the world's largest online learning platforms offering courses and programmes from leading universities and companies.
- 19. **edX** An online learning platform founded by Harvard University and MIT that provides access to courses from universities around the world.
- 20. **Khan Academy** A non-profit educational organization providing free online courses and learning materials for students and teachers in a wide range of disciplines.
- 21. **Bell Curve** A "Gaussian Curve", or normal distribution, often used in academic settings to evaluate exam results and distribute grades among students.
- 22. **Jean Monnet** A European Union programme aimed at supporting teaching and research in the field of European integration through the creation and funding of educational programmes and research centers.
- 23. **Research Information System** A research information management system that collects, stores, and analyzes data on research activities, including publications, projects, and grants.
- 24. **Industry 4.0** The Fourth Industrial Revolution, characterized by the introduction of digital technology and automation into manufacturing, including artificial intelligence, the Internet of Things, cloud technology and robotics.

### 8. ACTION PLAN FOR IMPLEMENTATION OF THE DEVELOPMENT PROGRAMME OF TURAN-ASTANA UNIVERSITY

Nº	Name of basic activities	Purpose	Target indicators	Completion form	Completion date	Responsible executors				
1	2	3	4	5	6	7				
	Strategic direction 1: Moving toward a Smart University Model									
1	Development and implementation of own MOOCs (massive open online courses) for digitalization of the learning process	Full digitalization of the learning process	80% of all courses have been transferred to LMS	Implementation of MOOC in LMS	2029	Digital transformation department Department of academic affairs				
2	Development of mobile application for applicants, students and teachers	Ensure that training materials are available online	90% of students use the app	Working mobile application	2026	Digital transformation department				
3	Training teachers and students in using of digital tools	Enhancing digital	100% of teachers have been trained	Courses and trainings were held	annually	Digital transformation department				
4	Automation of administrative processes through ERP system implementation	Full digitalization of administrative processes	80% of processes are automated	implementation of ERP	2026	Digital transformation department				
5	Installation of intelligent building management systems (BMS)	Improving energy efficiency	Cost reduction by 20%	Systems installed	2027	Digital transformation department				

6	Introduction of augmented and virtual reality technologies for practical classes	Improvement of the educational process	15% of disciplines use VR/AR	Technology implementation	2028	Digital transformation department
7	Integration of AI for monitoring students' academic progress	Optimization of academic monitoring	AI is used to monitor 100% of students	AI implementation	2027	Digital transformation department
8	Introduction of electronic portfolios for students	Increasing transparency of academic achievement	100% of students use portfolios	Implementation of the system	2027	Digital transformation department
9	Staff training on the use of new digital tools	Staff development	100% of administrative staff have been trained	Trainings were conducted	2025-2029	Digital transformation department
10	Acquisition of a "QR Attendance" module to monitor class attendance	Increasing control and accountability	100% of students are registered in the system	Implementation of the system	2025	Digital transformation department Department of academic affairs
11	Acquisition of the module "Auto timetable" for automation of the class timetable	Optimization of the process of creating timetables	100% of timetables are automated	Implementation of the system	2025	Digital transformation department Department of academic affairs
12	Acquisition of a new server for AIS "Platonus" to improve data security	Ensuring safety and reliability	100% of the data is protected	Implementation of server	2025	Digital transformation department

13	Acquisition of advanced mobile application for work in AIS "Platonus"	Increasing mobility and usability	90% of students use the app	Implementation of application	2025	Digital transformation department
14	Upgrading the computer park and infrastructure at the university	Provision of modern equipment	50% of the equipment has been renewed	Renewal	2027	Digital transformation department
15	Technical support for AIS "Platonus" to support digitalization processes	Improving the efficiency of the system	100% of processes are supported	Providing technical support	2025-2029	Digital transformation department
16	Acquisition of MS Office365 and license products	Software harmonization	100% of computers have been upgraded	Implementation of licensed software	2026	Digital transformation department
17	1C integration with AIS "Platonus" to automate financial processes	Finance Automation	100% of transactions through 1C	Implementation of 1C	2026	Digital transformation department, Accounting department
18	Enhancing the performance of computing power	Provide high speed data processing to support teaching and research processes	50% increase in productivity; 100% system availability.	Commissioning of the upgraded computing infrastructure.	2026	Digital transformation department
19	Modernization of the taU-eLib library system with the addition of new functionality (personal account	Create convenient access to	Increase in the number of users by 50%;	Launch of personal account and	2026	Digital transformation department

	of the reader, history of book lending, electronic catalog of literature)	library resources and increase user satisfaction	improve satisfaction rating by 20%.	electronic catalog in taU- eLib system.		Library and informational center
20	Implementation of taU-Doc's electronic document management system covering digitalization of most of the University's business processes	Increase the efficiency and transparency of the university's document flow	Reduction of document processing time by 40%; reduction of paperwork by 80%.	Full digitalization of document flow in administrative departments.	2027	Digital transformation department Chancery
21	Implementation of taU-Panopticum smart proctoring system to analyze video streaming and detect academic integrity violations	Ensure academic integrity and control of the examination process	100% proctoring coverage of exams; 50% reduction in academic integrity violations.	Launching and testing the proctoring system at the exam session.	2028	Digital transformation department
22	Improvement of the analytical system - taU-Analytics allowing to evaluate and make managerial decisions	Improve the quality and speed of management decision making	Analytical reporting time reduced by 50%; improved data accuracy by 25%.	Commissioning of the updated analytical system.	2029	Digital transformation department Vice-Rectors
23	Implementation of an alternative taU-LMS system used for various events (Olympiads, testing,	Provide a platform for online activities	Holding at least 10 taU-	Formal implementation of taU-LMS.	2026	Digital transformation department

	hackathons, etc.) not related to the contingent of students at the University.	and testing outside of the core curriculum	LMS events annually.			Department of academic affairs
24	Organization of cooperation with international companies to open new online platforms and laboratories on the basis of the university	Increase the international recognition of the university and provide students with access to the latest technology	Signing of 5 new partnership agreements; launch of 3 new laboratories.	Signed agreements and officially opened the laboratories.	2025-2029	Digital transformation department Department of international cooperation
25	Development of the taU-Recruiting system of the competitive commission during employment at the University	Create a transparent and efficient hiring system for all candidates.	Reduce hiring process time by 30%; 90% candidate satisfaction.	Commissioning of the taU-Recruiting system.	2027	Digital transformation department Department of Human resources and Legal support
26	Development of taU-Olymp system for evaluation of achievements and motivation of faculty members. The system provides access to faculty members to upload information	Motivate and evaluate faculty members based on accomplishmen ts	Increasing faculty members satisfaction by 20%; increase in productivity rates by 15%.	Implementation of taU-Olymp system with access for faculty.	2026	Digital transformation department Vice-Rectors
27	Unified system of taU-Help requests with end-to-end monitoring	Ensure prompt response to	Reduction of average	Start of the taUHelp system and completion	2027	Digital transformation department

	at different levels (student-adviser- PPS-dean-prorector-rector)	student and staff inquiries	processing time by 40%.	of the test period.		Vice-Rectors
28	Organization of taU-itSchool IT school to attract talented IT students for additional training and implementation of internal projects of the University.	Attracting talented students and creating conditions for their professional growth	Engage 50+ students per year; implement 5 internal projects annually.	IT school opening and student recruitment	2028	Digital transformation department
29	A series of taU-Lectorium events held in online/offline formats aimed at improving the competencies of faculty members in the field of IT technologies.	Improve the competencies of faculty members in the field of IT technologies	Conduct 20+ lectures and seminars annually; increase faculty members engagement by 25%.	Regular organization of taU-Lectorium event	2025-2029	Digital transformation department
30	A taU-Crowdsourcing tool that will allow students and faculty to suggest ideas for improving the institution and vote on the best ones.	Create a platform for generating and selecting ideas for the improvement of the university	150+ proposals annually; implementing the best ideas.	Official launch of the taU-Crowdsourcing platform.	2025	Digital transformation department Department of Youth affairs

31	The taU-Reserv system for online booking of desired rooms for classes, labs or events, which automatically checks availability and prevents double booking.	Streamline the process of booking rooms for various needs.	Improving user satisfaction by 50%.	Implementation of taU-Reserv system.	2028	Digital transformation department Department of academic affairs
32	Development of taU-Assessment system for final certification of students at the university	Create a transparent and effective system of final attestation	Completing 95% of grading processes through taU- Assessment; increased student and faculty satisfaction by 20%	Commissioning of the taU-Assessment system.	2026	Digital transformation department Department of academic affairs
33	Adjustment of the logic of accounting of attendance of the electronic log in AIS "Platonus"	Fair determination of a student's admission to the IA by attendance level	Increasing the level of attendance of classes by 20%	Accounting of attendance of the AIS Platon electronic logbook during admission to the IA	2025	Digital transformation department Department of academic affairs
	Strategie	c Direction 2: Deve	elopment of Scien	nce and Innovati	on	
34	Establishment of interdisciplinary scientific laboratories	Development of scientific infrastructure	Establishment of 5 laboratories	Opening of laboratories	2027	Chairs, Department of Science and innovation, Vice-Rectors

35	Participation in international scientific projects Horizon Europe, EUREKA, COST, Interreg, USAID, etc.	Increasing participation in international research	Participation in 3 international projects	Contracting	2028	Chairs, Department of Science and innovation, Vice-Rectors
36	Support for scientific publications in ranking journals	Increasing publication activity	Increasing the number of publications by 3 times	Publications in journals	2029	Chairs, Department of Science and innovation, Vice- Rectors
37	Development of internal scientific journal "Izvestiya Turan-Astana University"	Improving the quality of a scientific journal	Inclusion of the journal in the list recommended by CQASHE	Obtaining accreditation	2029	Department of Science and innovation, Editors of the journal, Vice- Rectors
38	Establishment of an endowment - fund for research funding	Securing funding for scientific projects	Creation of an endowment fund	The Fund was established	2029	Vice-Rectors, Department of Science and innovation
39	Developing collaborations with Industry 4.0 for academic and international projects (Google, HP, Binance, Microsoft, Nvidia, Lenovo, EduSystem, Tether, etc.).	Integration of technology into scientific research	5 projects in cooperation with industry	Signed agreements	2029	Digital transformation department, Department of Science and innovation, Vice- Rectors
40	Support for doctoral students in scientific research	Increasing scientific activity	100% of doctoral students participate in grant projects	Projects realized	2027	Chairs, Center of postgraduate education, Department of

						Science and innovation
41	Development of interdisciplinary research	Expanding scientific boundaries	20% of publications of an interdisciplina ry nature	Publications	2027	Chairs, Department of Science and innovation, Vice- Rectors
42	Participation of students in international scientific competitions and olympiads	Increasing student engagement	20% of students of EP participate	Prizes	2028	Chairs, Department of Science and innovation, Vice- Rectors
43	Attracting external grant financing (GF, PTF, SREDW) for research	Increasing research funding	11 grants were received	Realization of grants	2029	Chairs, Department of Science and innovation, Vice-Rectors
44	Purchase of equipment for digital laboratories from CISCO and HUAWEI	Development of scientific infrastructure	100% of equipment installed	Equipment implementation	2026	Digital transformation department, Department of Science and innovation
45	Conducting competitions for internal university grants for research activities	Support for scientific activity	20 grants have been awarded	Realization of grants	2029	Chairs, Department of Science and innovation, Vice- Rectors
46	Conducting a scientific and methodological professional development school for faculty	Professional development of teachers	100% of faculty	The courses have been completed	2026	Chairs, Department of Science and

	members on methods of conducting scientific research, AI, etc		members have been trained			innovation, Vice- Rectors
47	Opening of the Dissertation Council in the direction of personnel training 8D041- "Business and management"	Establish a dissertation council to improve the quality of scientific certification in the field of business and management	Conduct at least 3 defenses in the first year of operation; increase the number of applicants by 50%	The official opening of the Dissertation Council in 8D041 – "Business and Management".	2027	Chair, Department of Science and innovation, Vice- Rectors
48	Conducting a programme of training and support of applicants for the Bolashak scholarship and participation in the contests "The Best University Teacher" and "The Best Researcher"	Increasing the number of winners	2-10 winners annually	Applications submitted to the "Bolashak" programme and competitions, report on the results of the programme with data on the growth of the number of scholarship holders and winners	2025-2029	Chairs, Department of Science and innovation, Vice- Rectors
		Strategic direc	tion 3: Focus on	Ouality		

49	Implementation of the principle "Quality is Me"	Increasing the level of teacher accountability	100% of employees have been trained	Putting the principle to work	2025-2029	Chairs, schools, departments, Vice- Rectors
50	Increasing accreditation of educational programmes by foreign agencies	Bringing all programmes up to international standards	40% of programmes are accredited by international agencies (FIBAA, ACQUIN, etc.)	Obtaining accreditations	2028	Chairs, schools, departments, Vice- Rectors
51	Introduction of a system for monitoring the quality of teaching	Increasing student satisfaction	Increasing satisfaction by 10% annually	Monitoring	2025-2029	Chairs, schools, departments, Vice- Rectors
52	Obtaining new license applications for training areas	Expansion of educational programmes	Licenses for 7-10 new directions	Obtaining licenses	2025-2029	Chairs, schools, departments, Vice- Rectors
53	Joining the Association of Higher Education Institutions "Academic Integrity League"	Strengthening academic integrity	Adherence to League principles and use of tools	Signing of agreements	2029	Chairs, schools, departments, Vice- Rectors
54	Organization of regular professional development courses for faculty members, management, employees	Professional development	100% of teachers, managers and staff have completed the courses	Certificates of course completion have been received	2025–2029	Chairs, schools, departments, Vice- Rectors

55	Introduction of electronic monitoring system for academic progress	Increasing transparency	100% of student progress is monitored in real time	System implemented	2026	Digital transformation department, Department of academic affairs
56	Integration of blind review tools	Improving the objectivity of evaluation	100% of written work is blind checked	Implementation of the system	2029	Digital transformation department, Department of academic affairs
57	Developing an inclusive education programme	Improving access to education	100% of programmes are adapted for persons with special needs	Implementation of programmes	2029	Chairs, schools, departments, Vice- Rectors
58	Acquisition of expert services for updating educational programmes	Bringing programmes up to standards	Update 16 EP	Programmes updated	2025	Chairs, schools, departments, Vice- Rectors
59	Introduction of electronic portfolios for students to track their progress	Increasing transparency of evaluation	100% of students have portfolios	Implementation of portfolio	2027	Digital transformation department, Department of academic affairs
60	Accreditation of EP by international certification programmes (ACCA, CFA, CIMA, PM, etc.)	Increasing competitivenes s in the market	Enhancing the reputation of the university through quality	Received accreditation certificates from	2026	Chair, Department of academic affairs, Vice-Rectors

			education that meets international standards	international organizations		
61	Applying the principle of continuous improvement with a focus on small and incremental changes	Improving the quality of the educational process through regular, gradual improvements	Increasing student and faculty satisfaction by 10% according to the results of questionnaires , decrease in administrative costs by 5%.	Updating educational programmes, improving infrastructure, implementing digital tools for monitoring and feedback.	2029	Chairs, schools, departments, Vice- Rectors
62	Development and implementation of a human resources management system including updated procedures for recruitment, adaptation, training and evaluation of employees	Optimization of HR management processes to improve performance and employee satisfaction	Reducing time to hire process by 15%, increased employee satisfaction with HR processes by 10% based on annual survey results.	New procedures formalized and approved, staff trained in their application, final report on implementation results annually	2029	Chairs, schools, departments, Vice-Rectors
63	Carrying out a comprehensive campaign on the formation of the contingent of students with a focus	Growth of the total number of students	Increasing the number of applicants by	Conducting career guidance activities,	2029	Chairs, schools, departments, Vice- Rectors

	on quantitative growth and improving the quality of applicants	enrolled, growth of the average UNT score of applicants	30% and increase in the average score of applicants by 15- 20%	reporting on the results of the campaign and analyzing the quality of the contingent on the results of admission		
64	Construction of a new 9-storey residential complex for faculty members and students	Improving living conditions and, as a result, more effective learning and work processes	Attracting new qualified personnel and increasing the student population	Commissioning of the building	2026-2029	Administration
65	Conducting socio-economic initiatives as part of the social and educational work of the university, aimed at improving living conditions and development of the region, with the participation of students and teachers	Realization of the third mission of the university, as well as strengthening the role of the university in solving urgent social and economic problems of the region, formation of	Realization of at least 2-3 significant projects annually, increase of students' and teachers' involvement in social initiatives by 20%, SSCI coverage of at	Report on the results of project implementation, positive feedback from the community, statistics of student and faculty participation in social and economic initiatives	2025-2029	Chairs, schools, departments, Vice-Rectors

		students' civic responsibility and social engagement	least 90% of students			
	S	trategic Direction	4: International	Integration		
66	Increasing of the number of international students	Internationaliza tio n of educational programmes	Share of foreign students - 10%	Attracting international students	2028	Chairs, schools, departments, Vice- Rectors
67	Development of double-diploma programmes with international universities	Enhancing international cooperation	Implementatio n of 5 double- diploma programmes	Contracting	2028	Chairs, schools, departments, Vice- Rectors
68	Participation in international programmes Erasmus+, Jean Monnet, etc.	Increasing the number of students and teachers participating in international projects	Participation in 4 international projects	Participation in programmes	2027	Chairs, schools, departments, Vice- Rectors
69	Involvement of foreign teachers for joint projects and classes	Increasing scientific exchange	15% of teachers are foreign specialists	Contracting	2029	Chairs, schools, departments, Vice- Rectors
70	Strengthening research cooperation with international universities	Enhancing scientific cooperation	Participation in 10 international projects	Contracting	2029	Chairs, schools, departments, Vice- Rectors

71	Increasing mobility of students and teachers	Enhancing academic mobility	10% of students and faculty members participate in mobility programmes	Participation in programmes	2029	Chairs, schools, departments, Vice- Rectors
72	Expansion of educational programmes in English	Increasing number of programmes in English	30% of programmes are taught in English	Programmes implemented	2029	Chairs, schools, departments, Vice- Rectors
73	Establishing a branch of a foreign university on the basis of our university by establishing a partnership, adapting educational programmes and obtaining the necessary licenses	Increasing the attractiveness of the university for international students and teachers	Conclusion of a partnership agreement with a foreign university, launching at least two joint educational programmes	Signed agreement on the establishment of the branch, enrollment of the first group of students, report on the opening of the branch and the results obtained	2029	Chairs, schools, departments, Vice- Rectors
74	Organization of international scientific conferences	Enhancing international reputation	5-10 international conferences have been held	Conferences	2029	Chairs, schools, departments, Vice- Rectors

75	Development of student exchanges with international universities	Expanding international cooperation	More than 100 students participate in exchange programmes	Implementation of programmes	2029	Chairs, schools, departments, Vice- Rectors
76	Participation in international research collaborations	Increasing international scientific cooperation	10-20 new international collaborations	Contracting	2029	Chairs, schools, departments, Vice- Rectors
	Strategic Direct	ction 5: Developin	g Entrepreneurs	hip and Startup	Culture	
77	Establishment of a revitalized business incubator and gas pedals for students	Developing entrepreneurial skills	Establishment of a new business incubator	opening of incubator	2025	Entrepreneurship center, Department of Science and innovation, Chairs, Vice-Rectors
78	Development of accelerator programmes for startups	Increasing the number of successful startups	30 startups have been launched	Conducting programmes	2025-2028	Entrepreneurship center, Department of Science and innovation, Chairs, Vice-Rectors
79	Organization of venture funds to finance student projects	Increasing investment in startups	attract at least 10 mln tenge	Attracting investment	2025-2028	Entrepreneurship center, Department of Science and innovation, Chairs, Vice-Rectors
80	Holding annual startup competitions among students and teachers	Increasing the number of	Organization of 5-10 contests	Conducting contests2	2025–2029	Entrepreneurship center, Department of Science and

		innovative projects				innovation, Chairs, Vice-Rectors
81	Development of entrepreneurial thinking through educational programmes	Formation of entrepreneurial culture	Participation of 60% of students in programmes	Implementation of programmes	2025-2029	Entrepreneurship center, Department of Science and innovation, Chairs, Vice-Rectors
82	Attracting external investors to student projects	Increasing funding for startups	Raising 50 mln teng	Contracting	2025-2029	Entrepreneurship center, Department of Science and innovation, Chairs, Vice-Rectors
83	Holding hackathons and innovation forums	Supporting innovation among students	Organization of 5-10 events	Activities carried out	2025-2029	Entrepreneurship center, Department of Science and innovation, Chairs, Vice-Rectors
84	Development of modules in entrepreneurship education programmes	Enhancing entrepreneurial skills	30% of educational programmes contain modules on entrepreneurs hip	Implementation of modules	2025-2029	Entrepreneurship center, Department of Science and innovation, Department of academic affairs, Chairs, Vice-Rectors
85	Creating platforms for presenting startups in front of investors	Increasing the number of successful startups	20 startups have been funded	Activities carried out	2025-2029	Entrepreneurship center, Department of Science and innovation, Chairs, Vice-Rectors

86	Participation in international accelerator programmes	Raising the international level of startups	10 startups participate in international programmes	Participation in programmes	2025-2029	Entrepreneurship center, Department of Science and innovation, Chairs, Vice-Rectors
87	Conducting "From idea to market" programme to support the commercialization of innovations at the university, including entrepreneurship training, an accelerator programme and an innovation fair to attract investors	Increasing the number of commercially successful innovative projects of the university and creating conditions for their market entry	Developing and bringing to market at least two innovative products or services annually, attracting investment in university innovations by 15%.	Innovation fair held, market entry, innovation products concluded or pre-contracted, report on programme outcomes and results	2025-2029	Entrepreneurship center, Department of Science and innovation, Chairs, Vice-Rectors
88	Developing and launching a crowdinvesting platform for financing entrepreneurial projects	Establish a mechanism for attracting private investment	total volume of attracted investments - not less than 50 mln tenge	A working crowdinvesting platform	2027-2029	Entrepreneurship center, Digital transformation department, Department of Science and innovation, Chairs, Vice-Rectors