

Х. ДОСМУХАМЕДОВ АТЫНДАҒЫ АТЫРАУ М... ИВЕРСИТЕТІ

NLC «Khalel Dosmukhamedov Atyrau University»



Strategic Growth. Global Collaboration. Sustainable Future.



The year 2024 marked a period of institutional strengthening, strategic reassessment of development priorities, and active integration of Khalel Dosmukhamedov Atyrau University into the national and international educational and research agenda. Amid intensifying global competition in higher education, digital transformation, and increasing demands for the quality of human capital development, the University consistently implemented strategic initiatives aimed at enhancing academic quality, advancing research and innovation capacity, strengthening international partnerships, and embedding the principles of sustainable development. The reporting period was characterized by systematic efforts to implement the University's Development Strategy, the reinforcement of strategic governance, the advancement of performance assessment mechanisms for structural units and academic staff, as well as the University's active participation in international rankings and initiatives. In 2024, particular emphasis was placed on the development of the entrepreneurial ecosystem, support for student initiatives, startup projects, and socially oriented innovations.



STRATEGIC PRIORITIES



- Development of strategic governance and institutional resilience;;
- Enhancement of the quality of educational programmes and academic mobility;
- Advancement of research, development, and innovation activities;
- Integration of digital technologies and artificial intelligence into the educational process;
- Development of the entrepreneurial ecosystem, startups, and Enactus initiatives;
- Strengthening international engagement and participation in global rankings;
- Implementation of ESG approaches and principles of sustainable development;
- Development of human capital and the KPI-based performance management system.

Mission

The mission of the University is to educate competitive professionals capable of operating effectively in the digital economy and Industry 4.0, to advance scientific research and innovation, and to contribute to the sustainable socio-economic development of the region and the country as a whole.

Vision

The University aspires to become a recognized regional hub for education, science, and innovation, integrated into the international academic community, with a strong and sustainable reputation, a high level of academic culture, and a well-developed innovation ecosystem.





STRATEGIC GOVERNANCE SYSTEM



In 2024, the University continued its efforts to establish an effective strategic governance system. A central role in this process is played by the Strategic Office, which ensures coordination of the implementation of the University Development Strategy, monitors key performance indicators, and provides analytical support for managerial decision-making. The Strategic Office serves as a connecting link between the University leadership, faculties, structural units, and external stakeholders. Its activities are aimed at shaping a shared strategic vision, enhancing the transparency of governance processes, and introducing best international practices.

During the reporting year, the Strategic Office focused on the following key areas:

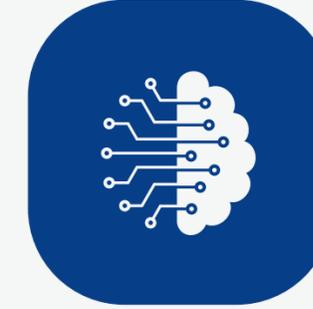
- Development and support of operational plans aligned with the strategic priorities;
- Coordination of the University's participation in international rankings (QS, THE, UI GreenMetric, Webometrics);
- Monitoring and analysis of KPIs for academic staff and structural units;
- Analytical support for projects related to sustainable development and ESG;
- Organizational support for international and national initiatives;
- Preparation of analytical reports and briefing materials for the University's governing bodies.

●●● EDUCATIONAL ACTIVITIES AND ACADEMIC DEVELOPMENT



Enhancement of Educational Programmes

In 2024, the University continued to update and modernize its educational programmes in line with labour market demands as well as national and international standards. Particular emphasis was placed on the integration of interdisciplinary approaches and the development of programmes in engineering, information technologies, robotics, and mechatronics. Practice-oriented components of learning were strengthened, and cooperation with employers and industry partners was expanded, which contributed to enhancing the applied focus of the educational process.



Digitalization and Innovative Approaches to Teaching and Learning

One of the key priorities in 2024 was the digitalization of the educational process. The University actively implemented digital learning platforms, elements of online education, and hybrid learning formats. Special attention was given to the use of artificial intelligence and digital tools to improve learning quality and to personalize students' educational pathways..

● ● ● RESEARCH, INNOVATION, AND PROJECT ACTIVITIES

Development of the University's Research Capacity

In 2024, the research activities of Kh. Dosmukhamedov Atyrau University were focused on strengthening the applied nature of research, advancing interdisciplinary projects, and integrating science, education, and innovation. The University consistently shaped a research agenda aligned with regional and national development priorities, as well as with global trends in digitalization, sustainable development, and technological innovation. Particular attention was given to supporting research initiatives of academic staff, developing research infrastructure, and forming research teams capable of implementing projects at the intersection of engineering, natural, and social sciences. During the reporting year, efforts continued to engage early-career researchers and doctoral students in research projects, as well as to further develop scientific mentoring.

Development of Laboratory Infrastructure and Technologies

One of the priority areas was the renewal and modernization of the University's laboratory infrastructure. In 2024, a comprehensive assessment of laboratory facilities was conducted, identifying key needs in technical equipment, digital resources, and human capacity. Robotics, mechatronics, and artificial intelligence occupied a central place in the University's research and innovation activities. Conceptual frameworks were developed for next-generation research and innovation laboratories focused on: integration of robotic systems into educational and research processes; application of machine learning technologies for data analysis and process optimization; ensuring the safety and reliability of experimental activities. The advancement of these areas enabled the University to establish a solid foundation for further participation in industrial and research projects, as well as for the training of engineering professionals in line with the requirements of Industry 4.0.



RESEARCH, INNOVATION, AND PROJECT ACTIVITIES

Artificial Intelligence and Digital Technologies

In 2024, the University intensified its efforts to integrate artificial intelligence and digital solutions into research and educational practices. The application of intelligent algorithms was viewed as a key instrument for enhancing governance efficiency, research quality, and educational outcomes. Projects were initiated with a focus on:

- analysis of large-scale data sets;
- automation of monitoring and evaluation processes;
- development of intelligent learning systems;
- deployment of digital tools for the management of laboratory and research activities.

These initiatives represented an important step toward the formation of a comprehensive digital ecosystem at the University.



Projects Implemented at Kh. Dosmukhamedov Atyrau University

Grant-Funded Scientific and Scientific-Technical Projects

- Development of an interactive distance professional training program for teachers of small rural schools (Discord platform) – 69,913,462 KZT
- Optimization of physics problem-solving education based on STEM technologies – 59,035,823.30 KZT
- Intelligent decision support system for oil coke production management – 61,808,206.99 KZT
- Achieving Sustainable Development Goals in water and sanitation access using AI and machine learning – 111,713,518.39 KZT

“Zhas Galym” Grant Projects

- Study of atomic and electronic properties of transition metal dichalcogenides – 23,979,077 KZT
- Investigation of integrable models with self-consistent potential – 29,918,326 KZT
- Development of a digital teacher training portal based on cloud computing and IoT – 28,952,696 KZT

Scientific Results Commercialization Projects

- Organization of technology for the production and commercialization of the camel milk beverage “SofMaya” – 403,060,000 KZT
- Development of a physics textbook using augmented reality – 141,121,902.81 KZT

Program-Targeted Funding Projects

- Feed harvesting technologies under sustainable pasture management – 28,000,000 KZT
- Technologies to increase productivity and rational use of pastures – 35,000,000 KZT

Regional R&D Projects (Funded by the Atyrau Region Budget)

- Implementation of pasture rotation systems in the Zhylyoi district
- Use of self-flowing wells and groundwater
- Production of environmentally friendly mutton and lamb in desert areas

ENTREPRENEURSHIP, STARTUPS, AND ENACTUS



Startup Ecosystem Development

In 2024, the university placed special emphasis on fostering entrepreneurial thinking and supporting innovative initiatives among students and young professionals. Since 2020, a business startup competition has been held, which in the 2024–2025 academic year became a key tool for selecting promising projects. In 2025, the competition received 20 applications, of which 7 projects reached the final stage. The total funding awarded to the winners amounted to 10.1 million KZT.



Key Startup Projects

Among the winning projects, initiatives focused on environmental solutions, social entrepreneurship, and the development of university infrastructure stand out. The implementation of these projects contributes to the formation of practical skills, the development of responsibility, and entrepreneurial thinking among students. The university considers startup activities as an important element in preparing competitive graduates capable of creating their own projects and contributing to the region's economic development.



Enactus Kazakhstan: International Recognition

In 2024–2025, a significant achievement was the participation of the Kh. Dosmukhamedov Atyrau University team in the Enactus Kazakhstan National Expo 2025 (April 29–30, Astana). At the national stage, the team ranked among the top 12 out of 26 universities in the country. The team presented the PhytoLeather project, aimed at developing biodegradable leather from plant and food industry waste, which received high marks from experts for its innovation, environmental focus, and entrepreneurial potential. The team was awarded the Enactus Cup and certificates. Participation in Enactus contributed to strengthening the university's image, promoting practice-oriented learning, and engaging students in the international entrepreneurial community.



STUDENT ENVIRONMENT AND HUMAN CAPITAL DEVELOPMENT

Support for Student Initiatives

In 2024, the university focused particularly on promoting student engagement, supporting initiatives, and involving students in scientific, project-based, and community activities. The implementation of projects in the format of startups and Enactus helped students develop leadership qualities, teamwork skills, and social responsibility.

Development of 21st Century Competencies

Through participation in project activities, competitions, and scientific initiatives, university students acquired practical skills in high demand in the modern labor market, including:

Critical thinking

Project management

Digital competencies

Entrepreneurial mindset

Environmental and social responsibility



INTERNATIONAL ACTIVITIES AND PARTICIPATION IN GLOBAL RANKINGS



In 2024, the international activities of the Kh. Dosmukhamedov Atyrau University were regarded as a key factor in enhancing the university's competitiveness, strengthening its academic reputation, and integrating it into the global educational and scientific space. The main focus was on systematic participation in international rankings, development of partnership networks, academic mobility, and increasing the international visibility of scientific and educational outcomes. The coordination of the international agenda was carried out in close collaboration with the Vice-Rectorate for Strategic Development and Internationalization, the Office of Academic Affairs (Sofis), and relevant structural divisions.



PARTICIPATION IN GLOBAL RANKINGS

01

UI GreenMetric World University Rankings

In 2025, the results of the UI GreenMetric World University Rankings 2025 were published, with participation from 1,745 universities across 105 countries. According to the ranking: Atyrau University ranked 687th in the world; Among 30 Kazakhstani universities, the university ranked 6th. Compared to the previous year, the university demonstrated positive growth, reflecting systematic efforts in developing sustainable infrastructure, environmental policies, and educational initiatives in the field of sustainable development.

03

QS Quacquarelli Symonds (QS)

In 2024, the university intensified efforts to prepare and update data for participation in QS rankings, with particular focus on building a database of academic and employer experts, a key element of QS methodology. During the year:

- Contact data of experts was systematically collected and updated;
- Official information and invitation letters were sent;
- Connections with employers and academic partners were strengthened;
- Explanatory work was conducted with faculties and departments.

These efforts laid the foundation for further enhancing the university's academic reputation and improving its positions in international rankings.

02

Times Higher Education (THE)

Since 2023, the university has held the Reporter status in the Times Higher Education (THE) system. In 2024, work within the THE platform continued and became more systematized. Activities within THE included:

- Compilation and updating of institutional data;
- Engagement with academic staff regarding participation in academic surveys;
- Coordination with IT services to ensure digital accessibility of data;
- Analytical work on interpreting THE ranking indicators.

The Reporter status enables the university to:

- Be included in THE's international analytical ecosystem;
- Ensure transparency and comparability of data;
- Participate in global higher education research;
- Increase the university's international visibility.

04

Webometrics Ranking of World Universities

In the Webometrics Ranking of World Universities, the university ranked 8,491st. This result reflects the current state of the university's digital presence and underscores the need for further development of web resources, increasing the openness of scientific publications, and strengthening international scientific communication.



IMPLEMENTATION OF ESG APPROACHES

In 2024, the university consistently implemented ESG (Environmental, Social, Governance) principles within its strategic management system. Sustainable development was considered not as a separate area, but as a cross-cutting principle integrated into educational, scientific, and administrative activities.

The main areas of ESG activity included:

- Environmental sustainability and development of green infrastructure;
- Social responsibility and human capital development;
- Improvement of corporate governance and process transparency.

INTERNATIONAL SEMINAR ON SUSTAINABLE DEVELOPMENT

A significant event in 2024 was the international seminar on “Sustainable Development and the UI GreenMetric International Ranking”. The seminar featured Gulbazar Akylovna Medieva, Doctor of Economics, Academician of the National Engineering Academy of Kazakhstan, and a recognized expert in sustainable development, environmental policy, ESG, and climate risk management.

During the seminar:

Strategic priorities for the university’s sustainable development were discussed;

Mechanisms for improving positions in international rankings were reviewed;

Best international practices were analyzed.

Following the seminar, 42 university faculty members received certificates, contributing to enhanced institutional competence in the field of ESG.



HR POLICY AND KPI SYSTEM

Development of the KPI System

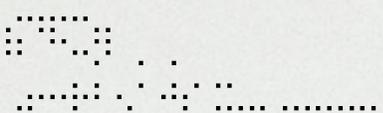
In 2024, the university continued the development of the Key Performance Indicators (KPI) system for academic staff. The KPI system is viewed as a tool to improve performance quality, motivate employees, and achieve strategic objectives.



The dynamics of academic staff participation in the KPI system over recent years show a steady increase:

- 2021–2022: 18,5%;
- 2022–2023: 17,2%;
- 2023–2024: 18,6%;
- 2024–2025: 20,9%.

The growth in these indicators reflects increased engagement and a conscious approach to work performance.



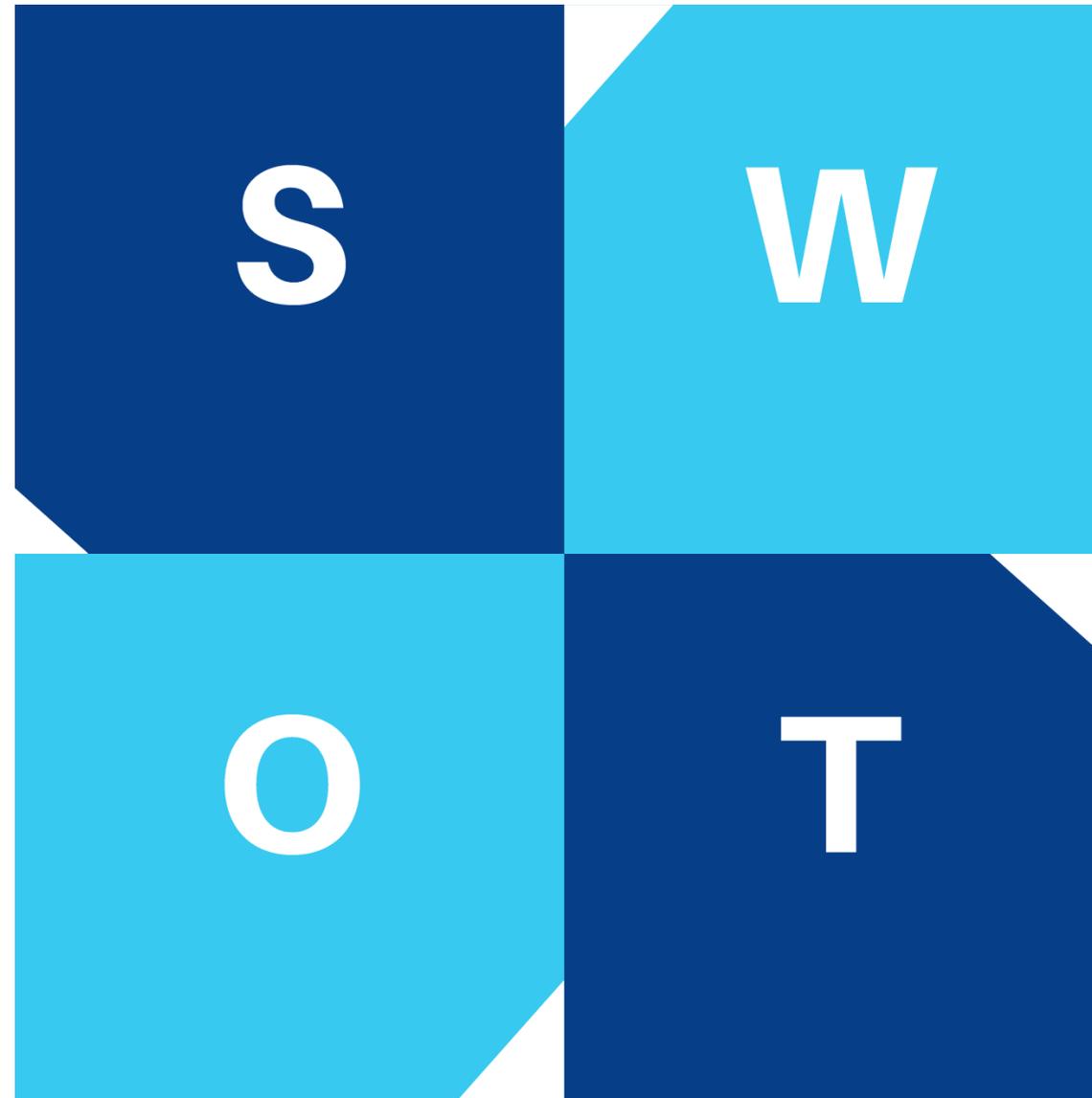
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STRENGTHS

- 84% of graduates successfully employed
- 401 academic staff members (Doctors of Science, Candidates of Science, PhDs)
- Strong integration with the economy of the Western region
 - Well-developed scientific and digital infrastructure
- International academic mobility (Erasmus+, Orhun)

OPPORTUNITIES

- Expansion of international partnerships
- Implementation of AI and digital solutions
- Growing demand for specialists in oil and gas, IT, and education
 - Expansion of dual-degree programs and SOPs



WEAKNESSES

- Limited financial and human resources
- Uneven engagement of structural units
- Dependence on external ranking methodologies

THREATS

- Increasing competition among universities
- Demographic challenges
- Global economic instability
- Changes in international ranking requirements.

CONCLUSION AND RECOMMENDATIONS

The following priorities have been identified for the next period:

- Strengthening international activities and ranking strategy;
- Developing digital and innovative infrastructure;
- Expanding support for startups and student entrepreneurship;
- Further integration of ESG principles;
- Enhancing the efficiency of strategic management.

The year 2024 was a year of strategic consolidation, growth in international activity, and strengthening of the innovation ecosystem for Kh. Dosmukhamedov Atyrau University. The university demonstrated its ability to adapt to global challenges, develop sustainable practices, and create conditions for preparing competitive graduates.