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The Report on L.N. Gumilyov Eurasian National University preparedness for future challenges

L.N. GUMILYOV EURASIAN NATIONAL UNIVERSITY
REPUBLIC OF KAZAKHSTAN

Triggering innovative approaches and entrepreneurial skills for students through creating conditions for graduate's employability in Central Asia

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Introduction

This Report on HEI preparedness for future challenges at L.N.GUMILYOV EURASIAN NATIONAL UNIVERSITY (hereinafter - ENU) serves as a basic document for further work on the project "Triggering innovative approaches, entrepreneurial skills and attitudes in HEI learners through creating the favourable conditions for graduate's employability in Central Asia" (TRIGGER) outputs preparation. The assessment is based on the HEInnovate tool - a free self-assessment tool for all types of HEIs, which is an initiative of the European Commission, DG Education and Culture and the OECD LEED Forum. Generally, it is intended for HEIs which are interested in assessing themselves against a number of statements related to the entrepreneurial and innovative nature of their higher education environment. The Report provides the first practical inside to eight areas:

1. Leadership and Governance
2. Organizational Capacity: Funding, People and Incentives
3. Entrepreneurial Teaching and Learning
4. Preparing and Supporting Entrepreneurs
5. Digital Transformation and Capability
6. Knowledge Exchange and Collaboration
7. The Internationalised Institution
8. Measuring Impact

The strength and weaknesses of ENU are identified and suggestions for strength support and weakness overcoming prepared.

The self-assessment of ENU was carried out from 1st of April to 27th of May, 2021. The respondents included top management of the university, teachers, researchers, professional and support staff.

Altogether 216 respondents took part in the audit using the HEInnovate tool.

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University in a glance

Non-profit joint-stock company “L.N. Gumilyov Eurasian National University" is one of the largest universities in the country that trains specialists at all levels of higher and postgraduate education in all areas, with the exception of military, medical and agricultural, in order to provide interested parties of quality educational and research services.

ENU was founded by the Decree of the President of the Republic of Kazakhstan N.A. Nazarbayev dated May 23, 1996 on the basis of the merger of two universities - Tselinograd Civil Engineering Institute (TCEI) and the Tselinograd Pedagogical Institute.

In accordance with the Decree of the President of the Republic of Kazakhstan dated July 5, 2001 No. 648 "On granting a special status to certain state higher educational institutions", the university was granted a special status of a national university, "taking into account the significant contribution to the formation, growth and professional development of an individual based on national universal human values, achievements of science and technology”.

ENU is a university that 25 years ago was created with the aim of implementing the ideas of Eurasianism through extensive international relations and active participation in world integration processes. To recall, the initiator of the creation of the Eurasian Economic Union was the first president of Kazakhstan, Nursultan Nazarbayev. He was the first of the leaders to come up with the idea of reintegration of the CIS member states. In March 1994, Nazarbayev spoke at the Moscow State University. Lomonosov with a lecture in which a proposal was made to create a new association - the Eurasian Union. 20 years later, the presidents of Kazakhstan, Russia and Belarus signed an agreement on creation of the EAEU. Later, Kyrgyzstan and Armenia joined the integration association. Next in line is Tajikistan. Today ENU is called the center of Eurasian thought. Not only well-known scientists of ENU. L.N. Gumilyov, studying the problems of Eurasianism, as well as the presence of the Department of Eurasian Studies and the Museum-Cabinet of L.N. Gumilyov, but the very architecture of the main, educational and administrative building of the university confirms this.

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University organisation and management

ENU is a public institution is a non-for-profit Joint-Stock Company. The founder of the Company is the Government of the Republic of Kazakhstan represented by the Committee for State Property and Privatization of the Ministry of Finance of the Republic of Kazakhstan. The authorized body in the relevant industry, exercising the right to own and use 100% of the state-owned shareholding in the Company, is the Ministry of Education and Science of the Republic of Kazakhstan (Sole Shareholder).

The activities of ENU are provided by over 3 thousand employees, of which: teaching staff - 1801 people; administrative and management personnel - 334 people; scientists and researchers - 98 people; educational support staff - 229 people. The share of teaching staff with academic degrees and titles is 63.4%: 178 doctors of sciences, 524 candidates of sciences, PhD - 178. The teaching staff includes 9 academicians of the National Academy of Sciences of the Republic of Kazakhstan, 5 - corresponding members of the National Academy of Sciences of the Republic of Kazakhstan, 168 graduates of the "Bolashak" program. In recent years, the quantitative and qualitative composition of the teaching staff has strengthened. The share of full-time teachers under the age of 39 is 36%. More than 400 foreign professors are attracted annually to deliver lectures, undertake research activities and consult the scientific work of PhD students. Most of them represent the world's leading universities.

Budget of ENU (in millions of Euros)

Total 34 026,0 (17 013 424 000 kz tg)

From Private Sector 6 176,0 (3 088 062 000 kz tg)

From Public Sector 23866,0 (11 933 177 000 kz tg)

For Research Activities 3 567,0 (1 783 915 000 kz tg)

For International Operations 90 213 (46 911 000 kz tg)

Others 482.714 (241 357 000 kz tg)

The Development Strategy of L.N. Gumilyov ENU was approved for 2021-2025, which is the main strategic document that defines the development directions and indicators for their achievement. MISSION: generating new knowledge and innovations in the Eurasian space, developing a competitive personality to serve the state and society. VISION: a national research university, competitive in the world, based on an innovation ecosystem and digital technologies. The mission and vision reflect the

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idea of creating ENU as a unique university, building its activities on the implementation of the idea of Eurasianism. The focus of the new Strategy is the development of a person (human capital) possessing the demanded skills of the 21st century, with an active civic position and high spiritual and moral qualities, contributing to the development of the country and the capital.

University recognition and promotion

The university is a member of the International Higher Education Academy of Sciences, the Eurasian Association of Universities, the Association of Technical Universities and the Association for International Studies of the CIS and Baltic States, the International Association of Universities and the European Association of Higher Education Institutions.

According to the results of 2022, university is ranked 277 in the world according to QS World University Rankings, and is also the only university in Central Asia, which was included in QS Top 50 Under 50 and Times Higher Education Young University Ranking. In the regional ranking of Emerging Economies and Central Asia ENU is ranked 42nd according to QS. ENU is also in the top 1201+ Times Higher Education World University Ranking. In addition, for several years ENU has been in the top according to Times Higher Education Emerging Economies University Ranking and Times Higher Education World Universities Ranking Asia. The European Chamber evaluates ENU as a leader in the educational space with the AA + position in the Academic Ranking of World Universities-European Standard ARES-2020.

According to the results of QS World University Rankings by Subject 2022, 9 subjects were awarded: Hospitality and Leisure Management (top 51-100), Art and Design (top 101-150), History (top 151-200), Law "(top 151-200), "Politics and International Studies" (top 151-200), "Business and Management" (top 501-550), "Linguistics" (top 101-150), "Economics and Econometrics" (top 351-400), "Physics and Astronomy" (top 451-500) and two subject areas "Arts and Humanities" (257th place), and "Social Sciences and Management" (323rd place).

Four ENU subject areas are marked in the Times Higher Education World University Ranking by Subject 2023: Education - top 501-600, Physical sciences - top 1001+, Engineering - top 401-500, Social sciences - top 801+.

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The number of internationally accredited educational programs increased from 18 in 2012 to 190 in 2020, which more than a 70% of all the programs offered.

In line with the general Development strategy university has Strategic plan of the Internationalisation for 2020-2022 and an annual Action plan for the promotion of L.N. Gumilyov ENU in international rankings that are focused on the international communication and promotional activities.

There a new office of marketing established at ENU in 2021 with the functions of the promotion and communication. The office is closely works with other departments of the university, press office, endowment fund, Jastar department, international cooperation department, in particular office for the development of the international partnerships and promotion in the international rankings. Detailed information about the university is also disseminated through image information booklets in Kazakh, Russian and English languages in electronic and printed format. They are available on the official website at faculties as a handout. Their content is updated periodically. In addition, all the necessary information is available in the university's mobile application.

As part of the implementation of the event of the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020-2025. ENU is actively working on the implementation of the project Centers of ENU abroad. Today, 12 cultural and educational centers operate in Russia, Belgium, Iran, Turkey, China, Belarus, Uzbekistan and Pakistan. Their main goal is to develop international relations of the university, strengthen cooperation with partner universities in the framework of joint projects, including attracting foreign teachers and students to ENU, and the promotion of the Kazakh language and culture abroad. The existence of these Centers greatly simplifies the procedure for agreeing and attracting visiting professors from partner universities, significantly increasing the number of participants in the academic mobility program.

In 2019 ENU opened an official representative office on internationalization and development of international cooperation in the capital of the European Union - Brussels (Belgium) on the basis of the Modern Education and Research Institute (MERI). The opening of the ENU Representative Office in Brussels serves as a strategic step to increase the level of modernization and internationalization of the university, as well as the development of basic and applied science together with European colleagues. Education and science in the age of domination of information technologies and big data become the driving force of economic growth, increase of efficiency and competitiveness of the national economy. The Modern Education & Research Institute supports teachers and university administrators in

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modernizing their activities by introducing modern approaches to higher education in a global context, as well as in recognizing and timely adapting to changes in the global social and academic environment.

Objectives of the Representative Office of L.N. Gumilyov ENU in Brussels are to:

• development of modernization and internationalization of education, as well as promotion of the image of science and education of the university in the international arena;

• creation of a pool of international experts to improve university management and modernize the educational process through participation in educational activities of the European level;

• monitoring and searching for partners to join consortia for EU science funding programs;

• creation of a platform for holding open lectures of ENU teachers in Europe and disseminating the results of their research;

• holding TV-bridges with lectures by European teachers for university students;

• in the future, the possibility of opening the campus of ENU in the European Union.

The organization is holding the mega events, like QS in Conversation and round table in the QS Europe 2021. On October 14-15, 2019, a global university summit “QS in conversation. “Enhancing Visibility Through International Cooperation: Mobility, Recognition, Branding” took its place. A major international event in the field of education and science is organized by the L.N. Gumilyov Eurasian National University in partnership with Vytautas Magnus University (Kaunas, Lithuania) and the international rating agency QS Quacquarelli Symonds. The large-scale forum brought together leaders of the academic community - rectors of higher educational institutions, representative scientists and experts in the field of education, science, art, journalism, business, economics and healthcare, representatives of international organizations. There are participants from Kazakhstan, Russia, USA, Lithuania, Latvia, Great Britain, Japan, Korea, Turkey, Azerbaijan, Estonia, Ethiopia, Poland, Ukraine, Uzbekistan. QS in conversation is a high-level international summit aimed to discuss global challenges in the field of higher education; trends in the international system of higher education; to determine the role of universities in strengthening the global community etc.

In 2021 ENU representatives had two online podcasts on QS In Conversation. The QS In Conversation podcast is a one-on-one interview with leaders and experts to discuss the latest trends in international and higher education across topics including student engagement, employability, edtech, and teaching delivery. Showcasing expertise across all areas, the fortnightly podcast is a detailed look into how education has changed and how it will continue to adapt in the future for everyone with an interest in

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the sector. From online delivery to marketing and student's needs, the QS In Conversation podcast gets the story behind the headline.

QS Europe 2021 conference and exhibition was held from 7-8 July 2021 that brought together the higher education leaders, industry experts, and policymakers to discuss "Leveling the Field: Bottom-up growth in building resilient European higher education". ENU as one of the official partners of the event has organised a roundtable on "Going global in higher education: turning challenges into opportunities" in the framework of this event. The two-day event covered insightful keynotes, debates, panel discussions, and case studies, and was also an opportunity to connect with the international higher education community, showcase of organization and create new partnerships.

Education

About 20 thousand students, including more than 800 foreign citizens, bachelors, masters and PhD students, study at ENU and are trained in 262 educational programs. The university issues a European diploma, Diploma Supplement. Teaching is conducted in 3 languages, by leading professors, teachers and specialists in their fields. In line with the national legislation on training of the PhD students, co-direction of all PhD thesis at ENU are done jointly by local professor at ENU and foreign professor from top-ranked institutions abroad.

ENU is training personnel with higher and postgraduate education in 106 educational programs of bachelor's degree, 105 – master's and 51 - doctoral studies. Together with foreign partner universities, 43 joint and double educational programs are being implemented, of which 31 educational programs are included in the top QS 400, as well as 41 educational programs in English. Co-consultation of PhD thesis is available.

The number of students is more than 20 000: bachelor's degree – around 15 000 people; master's – around 2 500 people; PhD studies – above 1000. The share of students of postgraduate education is 19.3% of the total contingent. The share of foreign students is constantly growing and amounts to 8% of the total number of students.

Despite the fact that over the past five years the need for personnel has decreased, the industries of the Republic of Kazakhstan are still experiencing a shortage of personnel. Due to the high demand in

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the labor market, almost all graduates of the ENU are employed in the field of their specialty. The share of graduates who studied under the state order, employed in their specialty in the first year after graduating from ENU has increased within the last two years: in 2019 - 77%, in 2020 - 80%. In general, the employment of graduates of NJC "ENU" in 2018 amounted to 85%; in 2019 - 90%, in 2020 - 90%. The share of employed graduates in bachelor's degree - 79%, master's - 86% and doctoral studies - 96%.

ENU modifies the existing and develops new educational programs, taking into account the policy of trilingualism, taking into account world experience, which will have a favorable effect on increasing their compatibility with the programs of leading universities in the world and, in turn, will create conditions for increasing the opportunities for academic mobility of students, singing agreements on double degree, promotes internationalization. Special attention will be paid to increasing the practical component of the educational process for students of all courses, undergraduates and doctoral students.

Foreign agencies ASIIN, ACQUIN, FIBAA (Germany) accredited 25% of educational programs of NJSC “ENU”. 75% of educational programs are accredited in the national agencies of the IAAR, NAOKO, KazSee.

ENU actively develops academic mobility for university students. Students within the framework of outgoing academic mobility travel through scholarships from the Ministry of Education and Science of the Republic of Kazakhstan, ITEC programs, Abay Vern, Mevlana, Orhun, Erasmus + programs and other foreign government scholarships. The number of students participated for the last three academic years is more than 1000 people in more than 100 universities around the world.

ENU has been holding joint summer schools for two years with the University of Milano-Bicoca (Italy). So in 2017, 2018 and 2022 the schools “Green Energy Management” and “SMART City” were held with the involvement of Kazakhstani and European professors. These events also attract foreign students, undergraduates, for 3 years more than 100 students took part. The program of the school is designed not only for acquaintance with the theoretical materials of a given topic, but also for acquaintance with the example of Kazakhstan, how theory is applied in practice. At the same time, it influences the formation of the country's image and the development of tourism. At the moment, it is planned to hold a summer school of the Russian language in conjunction with the University of Arizona. Apart from this there are lots of opportunities for the university staff and students to participate in summer schools and short trainings offered by the partner universities.

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Within the framework of the Erasmus + project "Strengthening the integration of higher education and the corporate sector in accordance with the conditions of the new social environment", an Alumni office was opened in 2018. The Office's activities are aimed at providing regular feedback with graduates within 18 months from the date of graduation (according to the experience of European universities, France University of Nice-Sophia Antipolis). The goal is to monitor the demand and career growth of graduates. Meetings with employers and the most successful graduates with university students and other business and leisure activities are organized on a monthly basis. All this contributes to the rallying and promotion of ENU graduates of all generations and the creation of a single community around the university. The University has an Alumni Office that aims to monitor the employment and career expectations of graduates and implements the following objectives:

- To identify the main factors that influenced the employment of graduates and the problems of their employment;

- Organization of the Telsurvey Call-center work and tracking the career path.

Office functions:

- On-line consulting and questioning of University graduates on the issue of employment;

- Acceptance of applications from graduate students for practice / internship;

- Assisting in the formation of a database of companies / vacancies / practices / internships;

- Involvement of senior students in the "Youth practice";

- Assistance in the employment of 3-4 year students for half a day "part time" and posting information for each student on the web portal.

Research and Innovation

The university has just recently gained the status of the research university in October 2022. Scientific research is currently carried out at the faculties and in 31 research subdivisions of ENU. NJC "ENU" takes part in R&D of both domestic and international projects. In 2020, 148 scientific projects of the Republic of Kazakhstan and 4 international projects were implemented (in 2019 - 99 projects in the Republic of Kazakhstan). Within the country, 7 state assignments were completed, 5 projects within the framework of program-targeted funding, 129 - within the framework of grant funding, 7 - by orders of local executive bodies and business structures. 61 are of an applied nature, 87 are fundamental. International projects have been carried out in the framework of joint scientific research with foreign universities.

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Income from scientific and (or) scientific and technical activities of NJSC “ENU” in 2020 amounted to 1 794 197 thousand tenge, or 10.7% of the total income (in 2019 - 1 365 909.386 thousand tenge, or 8.9 % respectively). Including due to the fulfillment of state assignments - 320 152 thousand tenge (17.8% of the income of science), program-targeted financing - 367 824.8 thousand tenge (18.8%), grant financing - 1 056 724 thousand . tenge (58.9%), local authorities and business - 49 493.2 thousand tenge (2.7%). The share of income from private financing of NJSC “ENU” scientific projects was 8.6%. In 2020, the implementation of scientific projects was carried out by 536 researchers of the NJC "ENU", of which 230 researchers are under the age of 35. 70 foreign leading experts were involved. In 2015, on behalf of Elbasy-Leader of the Nation N. Nazarbayev, the Indian-Kazakhstani Center for Excellence in Information and Communication Technologies was opened, in which the PARAM supercomputer (10 Teraflops) is installed and operates.

NJSC "ENU" publishes 17 scientific journals, of which 2 are the "Eurasian Mathematical Journal" (CiteScore 2017 - 19th percentile, 2018 - 32nd percentile, 2019 - 37th percentile), "Eurasian Journal of Mathematical and Computer Applications" (CiteScore 2017 - 20th percentile, 2018 - 23rd percentile, 2019 - 23rd percentile) are included in the world bibliometric databases Web of Science, Scopus, as well as 8 - in the RSCI. In 2020, the journal "Eurasian Journal of Mathematical and Computer Applications" is included in the database of Chinese academic journals (CNKI). It is the largest and constantly updated database of Chinese academic journals in the world. It contains over 56 million articles. The inclusion of the journal in this database indicates an increase in the citation rates of the publication.

In 2020, the application of ENU was approved for the inclusion of the journal “Eurasian Journal of Physics and Functional Materials” in the Scopus database. The journal will be indexed from 2017. The journal "Turkic Studies Journal" is published, which published 28 articles by foreign authors from organizations such as Indiana University, Frankfurt University. J.V. Goethe, Firat University, Azerbaijan State Pedagogical University, Academy of Sciences of the Republic of Uzbekistan, Kyrgyz-Turkish Manas University, Nevshehir Haji Bektash Veli University, National Center of Archeology of the Academy of Sciences of the Republic of Uzbekistan, Kazan (Volga Region) Federal University, Kalmyk State University named after B. B. Gorodovikova, Institute of Russian History of the Russian Academy of Sciences, National Academy of Sciences of Azerbaijan, St. Petersburg State University, Institute of Philology of the Siberian Branch of the Russian Academy of Sciences. The work in this magazine in accordance with the requirements of international standards continues. The editorial boards of the scientific journals " Vestnik ENU" include more than 100 foreign scientists from countries such as Russia, Turkey, France, Germany, Italy, the United States, etc. authors. In 2020, more than 60 articles by foreign authors were published in the journals "Vestnik" ENU.

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In ENU a system of material incentives for the publication activity of teaching staff has been introduced, including in publications included in the Web of Science base. In 2020, 78 monographs were published, 344 scientific publications in conference proceedings, 661 publications in scientific journals that are not included in the world rating bases. 356 publications are reflected in the Web of Science database, 551 publications - in the Scopus database. In 2020, material incentives were paid to authors of 97 publications with a high impact factor (quartile Q1-Q3) in the amount of 40,022.6 thousand tenge (in 2019 - to authors of 72 publications in the amount of 25,919.1 thousand tenge).

The citation level of publications is an indicator of the growth in the contribution of science to the promotion of ENU in the QS World University Ranking. The citation rate of publications over the past 5 years in international databases is: Web of Science - 54.9%, Scopus - 51.3% (in 2019: Web of Science - 44.4%, Scopus - 45.9%). The average citation rate of 1 article of scientists of the NJSC “ENU” for the last 5 years is 2.19. The contribution of science of ENU to promotion in the QS World University Ranking is equal to 1.5 points in the total score of ENU 30.2. According to the international information and analytical platform Web of Science, in 2020 NJSC “ENU” became the owner of the independent award “Leader in the number of publications in the subject area “Materials Science” in the Web of Science Core Collection over the past 3 years among the universities of the Republic of Kazakhstan”.

There are 22 dissertation councils (20 in 2019) in ENU in 35 specialties, of which 12 are natural and technical specialties, 23 social and humanitarian specialties. ENU issues its own diplomas of Doctor of Philosophy (PhD). In 2020, 71 dissertations were defended in the dissertation councils of ENU, 70 of ENU’s own diplomas were issued (in 2019 - 23). ENU " has introduced and is implementing a postdoctoral program aimed at attracting young talented scientists, which is funded from extrabudgetary funds. Currently, there are 3 researchers in the postdoctoral position.

The results of scientific research in 2020 are issued in the form of 18 patents, 93 copyright certificates, 5 acts of implementation in production and 4 acts of implementation in the educational process. The work on the commercialization of the results of the activities of the scientists of ENU continues.

Digital Transformation and Capability

Internal communication is largely operated by the department of information technologies, and Microsoft teams program. Throughout the COVID-19 pandemic, Teams, and other software such as Zoom and Google Meet, gained much interest as many meetings have moved to a virtual environment. The external communication is mainly operated and coordinated by the Press office of ENU.

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ENU website is the main and accessible source of information on the activities of the university. Three areas of the university website work: information (dissemination of information about the university and its services), communication (establishing feedback with target audiences), image (providing a certain image in the eyes of target audiences). The official website of the ENU *www.enu.kz* functions in 3 languages - Kazakh, Russian, English. The site is hosted by ENU, maintained and modernized by the staff of the web site. Page load speed - 0.66 sec. One of the differences of the official website of ENU from other Kazakhstani university websites is the news focus. Every week on the main page of the site www.enu.kz 15-20 news about events at the university are posted. The official site of ENU is a promo site (designed to increase brand awareness). The daily occupancy rate is based on the target audience.

According to Yandex Metrica, the annual traffic of the www.enu.kz website is over 1.42 million users from 152 countries of the world, and the total traffic amounted to more than 4.02 million website pages.

60-62 thousand visitors visit the site monthly. During the admission campaign, site traffic increases to 110 thousand visitors per month. At the same time, 48% of visitors are 18-24 years old (applicants and students, employers), 17.1% are under 18 years old (schoolchildren, applicants), 20.5% are aged 25-34 years (potential graduate and doctoral students), 6.29% - 35-44 years (potential doctoral students, scientists, parents), 5.54% - from 45 to 54 years (scientists, parents). The greatest interest in the ENU website is shown by potential applicants and students of bachelor's, master's, doctoral studies. Despite the high traffic on the site, it should be noted: the structure and design of the web resource are significantly outdated. This is largely due to the large amount of information, which, moreover, is duplicated in several sections. The most up-to-date information is posted on the Russian version, then the translation is performed into Kazakh and English. At the same time, the Information Center has begun work on the creation of a new website for the university (the design was last changed in 2017) and a new usability is being developed taking into account the target audiences.

ENU is also promoted through work in social networks. So, ENU is represented on Instagram, Facebook, VKontakte, Telegram, LinkedIn, YouTube video hosting. Content is posted in 3 languages.

The total number of YouTube subscribers is 4.4 thousand people.

Instagram - @enugumilyov_official.

Total number of subscribers - 20 668 (as of June 5, 2021)

Facebook (L.N. Gumilyov Eurasian National University)

https://www.facebook.com/enukz

Subscribers: 2.5 thousand

VKontakte: L.N. Gumilyov Eurasian National University.

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https://vk.com/gumilyov_enu

Friends - 5.2 thousand, subscribers - 966

Telegram - ENUofficial

40 followers

During the implementation of the ENU Development Strategy until 2020, the computer park and telecommunications equipment were increased, the Antiplagiat.vuz system was introduced, work is underway to create and introduce electronic resources and open online courses into the educational process. ENU lecturers have a high level of proficiency in distance learning technologies and regularly improve their competence through courses, workshops and methodological webinars. The webinar "Effective application of methods and technologies of distance learning" is constantly running, where teaching staff exchange best practices, discuss problematic issues, master new teaching methods. In order to develop e-learning and distance learning, the University is actively and systematically working. The functionality of e-learning is fully implemented through the existing learning management systems Platonus and Moodle and the platform of massive open online courses of the University. Website ENU www.enu.kz is available in three languages (Kazakh, Russian and English).

International cooperation and internationalisation

One of the advantages of the rating is to increase the prestige of the university. Many world universities evaluate a potential partner in terms of his position in international rankings. And this becomes more and more noticeable when establishing cooperation between universities. ENU's position and recognition contributed to the development and strengthening of cooperation with a number of high-ranking universities, such as the University of Cambridge (UK), University of California (USA), Osaka University (Japan), Lund University (Sweden), KTH (Sweden), Autonomous University of Barcelona (Spain)) other.

Cooperation with world universities is carried out on the basis of international agreements, opening of branches of ENU, international educational programs, etc. At present, ENU has concluded more than 400 agreements with foreign universities and research centers. The number of partner universities included in the top world rankings of Academic Ranking of World Universities (ARWU), Times Higher Education World University Rankings and QS World University Rankings has doubled to 139 universities.

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The main directions for the development of partnership relations of L.N. Gumilyov ENU with foreign universities are:

- academic exchange of undergraduate students, undergraduates, PhD doctoral students, teachers and researchers for training, internships, professional practices;

- cooperation in the field of preparation of joint educational programs of double diplomas;

- Carrying out joint scientific and scientific and technical research with the involvement of the professors for co-management and scientific advice in writing master's and doctoral dissertations;

- holding joint conferences, seminars, symposia, round tables and other initiatives in the field of education and science;

- publication of research, teaching materials based on the results of joint work;

- exchange of publications, research, educational and methodological literature, periodicals, information on ongoing activities, etc.

Today ENU is one of the culturally diverse universities. Thus diversity, integration and multilingualism are among the core values. International communication of the university is carried out by the International Cooperation Department led by Vice-rector for science, commercialisation and internationalisation. The main mission of the International Cooperation Department is to ensure the internationalization of activities of the university and raising awareness of ENU as a scientific and educational center of the Eurasian region in global educational arena by:

1. Establishing and developing new effective, sustainable relations with leading universities in the world, scholarship programs, educational and scientific organizations.

2. Search of new international education and scientific programs and dissemination of information about opportunities and consultancies for students, faculty, university staff of ENU to participate in international programs.

3. Assisting with Inbound and Outbound academic mobility of students, faculty, university staff and its placement and registration at the partner institution and ENU.

4. Recruiting of foreign nationals for education at ENU, placement and registration.

5. Attracting of foreign professors and organization of their visits.

6. Assisting in engagement of university into works of consortiums, associations.

7. Presentation of ENU in international forums, educational fairs, and so on.

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8. Providing the services and consultations related to the migration and visa issues of the university international staff, students and guests.

The International Cooperation Department consists of the Academic Mobility Office, Development of International Partnership and Promotion in International Rankings Office and Office for work with foreign citizens. As a result of the Erasmus + Welcome project “Welcome center” was created and functions as part of the Department to provide the services for the international students and staff. To facilitate the international relations of the faculties International Faculty coordinators and coordinators for the promotions in international rankings were assigned at each faculty. They work closely with the international partners. ENU Students Ambassadors is an outbound academic mobility program partially funded by the university to financially support ENU students. ENU undergraduates studying from the second to the sixth semester, both on a paid basis and at the expense of a state educational grant, as well as Master and PhD level students, can become applicants for the provision of financial support for those leaving for study on academic mobility "ENU Students Ambassadors" . The ENU Students Ambassadors program partially finances travel, accommodation and a one-time scholarship in which only one of three financial support (travel / accommodation / scholarship) is provided to the Participant on the basis of selection. Criteria for the selection of participants in academic mobility funded by the university under the "ENU Students Ambassadors" program Taking into account the high exposure of the university at the national, regional and international level ENU representatives, including academic and administrative staff as well as students participate in many events regularly (online and offline). Due to the large number of those events, there is no official calculation done by the university.

To promote university awareness and create branded programs, “Welcome to ENU” incoming mobility program was launched in 2020. As part of the student exchange, foreign students from such countries as: France, South Korea, Turkey, Poland, China, Russia, Hungary, Japan, Kyrgyzstan, Tajikistan, Uzbekistan, etc. visit ENU annually. The program offers the incoming exchange students tuition-free study during one semester or an academic year along with the free on-campus accommodation.

There are several opportunities for the international students to receive the scholarship for studying at ENU: incoming exchange program as part of Welcome to ENU program, joint degree programs as part of the scholarship programs or interinstitutional agreements, national scholarship operated by the Ministry, intergovernmental agreements with some of the countries (Tajikistan, Ukraine, Afghanistan, Turkmenstan,etc.), national scholarships for the ethnic Kazakhs who are citizens of the counties other than Kazakhstan, local ENU scholarships “Kultegin” and “Gumilyov” approved from 2022.

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Every year, there is an increase in foreign citizens at ENU, and despite the global pandemic in 2020, 158 students of Bachelor's, Master's and Doctoral programs have been admitted to ENU. Of these, 119 study on a grant and 38 on a contract basis from countries such as Kyrgyzstan, Turkmenistan, Turkey, Russia and Uzbekistan. The available scholarships for international students are: Intergovernmental agreements with China, Ukraine, Belarus, Hungary, Turkmenistan, Afghanistan, Turkey and so on. National scholarships operated by the Center for Academic mobility and Bologna Process under the Ministry of Education and Science of Kazakhstan. Special quotas for the international students applying on joint programs within the framework of the Shanghai Cooperation Organization University (SCO) and CIS Network University. Tuition free studies and free on-campus accommodation for international students studying join degrees within the framework of the bilateral agreements. Welcome to ENU incoming exchange student program with the Tuition free studies and free on-campus accommodation.

In 2020 as part of the internationalisation strategy of the university and its programs, some functions of the International Cooperation Department, in particular development of the multilingualism and English-taught programs as well as join degree programs were transferred to the Department of Academic Affairs. To facilitate the international relations of the faculties International Faculty coordinators and coordinators for the promotions in international rankings were assigned at each faculty. They work closely with the International Cooperation Department and assist in all their activities at the faculty level.

The university partnerships is aimed at the development of the educational and research potential of the university. Any partnership agreement has to be started by the official proposal of the relevant faculty or department that initiate the partnership. The proposal is officially coordinated and agreed by the relevant departments, including International Cooperation Department, Department of Academic affairs, Law Office, if relevant Finance department, Research projects office and others. The drafts of the agreement with the international partner universities are also approved for the convenience and faster coordination process. The university strategy and all actions plans, including internationalisation plans and strategies are preliminarily discussed by the Department of Finance and considered in the annual budget of the university.

The total number of foreign specialist attracted to the university in 2021 is 471, including the short-time and long-term period. These numbers were affected by the pandemic situation in 2020 and 2021. In order to stimulate the international collaboration of faculties, ENU continues to implement the already successful program of attracting foreign specialists to carry out scientific and educational activities, lecturing and advising on the preparation of dissertations for undergraduates and doctoral PhD students. Annually, the Ministry of Education and Science provides the highest number of quotas for

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the ENU to attract professors at the expense of the republican budget for a period of one month. Along with this, ENU has a policy of attracting foreign specialists at the expense of the university to attract foreign scientists for a semester or academic year. Despite the pandemic, in connection with the transition to a remote basis for lecturing in 2020, the number of specialists involved in this program has doubled to 50 people. According to the policy of the university, along with the availability of academic degrees and work experience, the priority indicators in the selection of candidates by the Commission are the high impact factor and the professor's H-index. Also, preference will be given to professors from universities included in the top general and subject international rankings QS and THE.

In addition, cooperation with embassies and other organizations that provide funding for attracting foreign specialists within the framework of various extra-budgetary types of funding, such as Erasmus +, Fellowship, government grants from foreign countries (Italy, Spain, Poland, Hungary, Turkey, etc.) etc.). Professors from leading universities and research centers are attracted to the university on an ongoing basis through funding the volunteer program of the Center for International Programs "GO NOMADS", the leading German organization "Service of Senior Experts (SES)", the European Union ERASMUS + program, within the framework of grant funding from the Ministry of Turkey in in order to popularize the Turkish language and culture, within the framework of the National Agency for Academic Exchanges of Poland (NAWA), the Italian Embassy, the Agency for Spanish Cooperation for International Development, within the framework of international cooperation through the Embassies, attracting investment in education, developing exchange programs and conducting joint scientific research.

In order to improve the efficiency of training doctoral students, as well as to develop research collaborations with foreign scientists, since 2020, employment contracts have been concluded with foreign scientific consultants for first-year doctoral students, which also contributes to increasing the academic and scientific reputation of the university in the international scientific and educational space.

The university internationalisation in terms of the infrastructure includes some signs which reflects the basic on campus information. But not all information are provided in English. Internal Communication in English among the academic staff and students is well structured due to the development of the multilingual education (English, Kazakh and Russian) at the university. ENU website and newly launched university application is operated in three languages (English, Kazakh and Russian).

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On main campus there is an international reception, where the international staff, students and guests can get help in orientation and further information. This reception is operated as part of the Welcome center, located in the student dormitory No 7, This is the newest dormitory which was specifically constructed for the international staff and students to create the internationally friendly environment. The WELCOME Center ENU was created as part of the Erasmus + project “WELCOME – Towards incoming international university communities” in September 2018 with the goal of providing conditions for successful adaptation and integration of foreign students, teachers and researchers into the university environment, and attracting foreign students. Functions of the Center:

- Information and advisory: organization of information sessions, orientation week for foreign students and teachers, the provision of general and practical information about the university and the city, meetings with staff and guests of the University;

- Material and technical: providing a resource base for academic training: computers, multi-function device, projector, mini-library, Wi-Fi;

- Socio-cultural: holding international days, cultural days, presentations, speaking clubs, distribution of tickets and invitations to cultural, educational and sports events of the University and the city.

In line with state plan for the development of the education and science ENU is planning to open the campus abroad. The specific location and other activities are under arrangement.

The University of Arizona (Tucson, Arizona, USA) and L.N. Gumilyov ENU announced a partnership within the framework of the Global Campus program, which will help students obtain a US diploma without leaving their country during the COVID-19 pandemic. In addition to general university brochure, there are list of courses offered in English, the list of educational programs for international students, the list of the double diploma programs, the Welcome guide for the international students and staff that are prepared in three languages: Kazakh, Russian and English.

Self- assessment of dimensions based on HEINNOVATE

216 respondents took part in the survey by following positions:

Name of the position	Respondents	in %
Academic position (Professor/ lecturer, researcher)	179	82,9

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Academic position (Professor/lecturer, researcher), Professional and support staff (e.g. career consultants / technology transfer office / Administrative support office)	1	0,5
Academic position (Professor/lecturer, researcher), Professional and support staff (e.g. career Advisors / Technology Transfer Office / Administrative office)	18	8,3
Senior Management position (Rector/Chancellor, Vice-rector/ Vice-Chancellor, Dean, Vice-Dean), Academic position (Professor / Lecturer, Researcher)	2	1
Teacher involved in entrepreneurial education	9	4,1
Professional and support staff (e.g. career Advisors / Technology Transfer Office / Administrative office)	7	3,2
Total	216	100

Respondents were asked to rate the statements for each of the eight measures on a scale from 1 to 5, with 1 being the lowest score and 5 being the highest.

DIMENSION: Organizational Capacity: Funding, People and Incentives

3 respondents (1.4% of all respondents) out of 216 provided the lowest score 1 for all questions: 1 person in a top management position and 2 in an academic position (professor / lecturer, researcher). 62% of respondents rated all the questions with the highest score.

1 score – 3 respondents, 1.4%

2 score – 4 respondents, 1.9%

3 score – 18 respondents, 8.3%

4 score – 54 respondents, 25%

5 score – 137 respondents, 63.4%.

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In this direction, respondents believe that the university intends to carry out entrepreneurial activities to support its strategic goals, and it is necessary to have key resources to maintain and develop of its entrepreneurial abilities. At the university, entrepreneurial goals are supported, and there is a potential and culture for building new relationships and interaction throughout the organization. A certain area of entrepreneurial culture has been formed at the HEI, for example, there is a structural unit for the development of entrepreneurial abilities. For the implementation of entrepreneurial activities of HEI, the university needs tools to support of starting businesses. Stimulating and encouraging the entrepreneurial behavior of all staff strengthens the desire to develop an innovative university. Incentive and reward systems should be available at the individual level, as well as for the structural divisions of the university.

To develop this direction, the university should strengthen the following measures::

1. Engage stakeholders with strong entrepreneurial experience from the private, public, or volunteer sectors and from non-academic environment.
2. Diversify sources of financing and investment, including non-monetary deposits.
3. Motivate staff to train to support business activities.
4. Adjust the training and research workload of employees for those who take on the responsibilities of supporting the development of entrepreneurship.
5. Provide financial assistance to the university's structural units and staff to encourage innovation and change.

DIMENSION: Entrepreneurial Teaching and Learning

For this block, the average response score was 4.47 points, which is quite a high indicator.

Entrepreneurial teaching and training provides an opportunity to get acquainted with the entrepreneurial experience and acquire skills and competencies for the development of entrepreneurial thinking. The University provides a number of learning opportunities that promote innovative teaching and training. The University conducts a number of activities to encourage the use of various innovative approaches in teaching. The university has an institute that promotes additional non-formal education. The university, together with external stakeholders, develops and implements training programs that can be used in teaching entrepreneurship. The University regularly interacts with stakeholders to understand future skills needs.

Measures that should be taken by ENU:

1. Support and train staff to create a new curriculum related to student-centered, as well as interdisciplinary and practical training of entrepreneurship.

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2. Expand access to student business clubs, societies and competitions and expand the boundaries of awareness for students to participate in such kind of events.
3. Increase the number of non-formal entrepreneurship training courses with practicing entrepreneurs.
4. In the educational programs of the university, include the possibility of mastering the skills and competencies of entrepreneurship for obtaining an academic degree.
5. Maintain a variety of collaborative partnerships with local communities and organizations, local and regional authorities, chambers of commerce, industries, and alumni.

DIMENSION: Preparing and Supporting Entrepreneurs

Universities can help students, graduates and employees consider starting a business as a career. From the very beginning, it is important to help people think about commercial, social, environmental or lifestyle goals related to their entrepreneurial aspirations and intentions. Those who decide to start a business or other type of activity can be offered targeted assistance in creating, evaluating and implementing an idea, developing the skills necessary for a successful enterprise, and, importantly, finding appropriate team members and gaining access to suitable funding and effective networks. By offering such support, the university should ideally act as part of a broader ecosystem of business support, rather than working in isolation.

For the questions in this block, the respondents answered 29 questions with an average rating of 4.47. Unlike the first block of questions, there are no unambiguous answers in this block. If we look at each of them in more detail.

The university raises awareness of the value of entrepreneurship and encourages the entrepreneurial intentions of students, graduates and employees to create a business or enterprise. The university provides, if necessary, a sabbatical, the opportunity to work at a lower rate, but there are no such opportunities for students. The university uses various communication channels to raise awareness of opportunities and demonstrate entrepreneurship among staff and students in all parts of the institution.

The university provides support to students in preparing for a startup, such as developing an idea, finding a team, and studying the technical and market aspects for the implementation of the project. And conducts events to generate and evaluate business ideas. The university has a platform for mutual mentoring, where aspiring entrepreneurs can get advice and develop their business networks. The youth business incubator provides a range of services, from the development of ideas to their commercialization, innovative projects and the educational process in the field of entrepreneurship at the university. They also offer future entrepreneurs an affordable place to access an integrated package of coaching, mentoring and training services.

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Measures that should be taken by ENU:

1. Provide a supportive framework environment for Startups, such as providing an opportunity for students to extend the duration of their study programs to support the opening of a new venture during their studies.
2. Offer funds to support market feasibility studies.
3. Training should transfer relevant knowledge and skills in a wide range of areas, such as financing, legal and regulatory issues, working with people and building relationships, managing innovation processes, how to deal with success, stress and risk, and ways to restructure or exit.
4. Provide participants with various funding tools, such as grants, prizes, loans, and promotions.
5. Embed incubation facilities in the research and educational infrastructure of the university to enhance synergy.

DIMENSION: Digital Transformation and Capability

Universities are implementing digital technologies, but their implementation and integration varies between and within educational institutions. The University promotes the development of digital culture as a means of innovation and entrepreneurship. The University has an understanding of working with a strong vision which is based on thinking and focusing on digital technologies. The University's structure has departments that deal with the digital transformation of the university's activities. However, there are a number of issues that should contribute to the digital transformation of innovation and entrepreneurship.

A Roadmap defining the digital transformation of the university has been developed. There is a digital infrastructure that is managed and improved in accordance with the vision, mission and strategy of the University.

The University provides employees with training and advanced training opportunities on the use of digital technologies in teaching, learning and evaluation.

The University promotes rapid knowledge sharing and new ways of sharing results (including publications, research data, and methodologies) among students, staff and society, and encourages the adoption of new research methodologies and expands the scope of innovation.

A system of performance indicators (key performance indicators - KPIs) has been developed to encourage the implementation of university strategies.

Respondents had to answer 20 questions and the average score is 4.48. 1 respondent holding a senior management position (rector / vice-rector / dean, deputy dean) provided 1 point to all questions.

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Measures that should be taken by ENU:

1. Ensure sufficient financial resources to implement various aspects of the digital transformation strategy for innovation and entrepreneurship with clear and measurable goals.
2. Ensure the availability and broad understanding of legal and ethical policies and standards specifically related to digital aspects, including in relation to innovation and intellectual property rights.
3. Support innovation through a wide range of pedagogical approaches based on the use of digital technologies and implemented at the appropriate level.
4. Track and demonstrate how the student and staff experience can be improved by implementing digital tools and practices.
5. Ensure the relevance of the digital presence in the activities of the university in the field of teaching, learning and evaluation.

DIMENSION: Knowledge Exchange and Collaboration

Knowledge sharing is an important catalyst for organizational innovation, the promotion of learning and research, and local development. This is a continuous process that includes the" third mission" of the University, defined as the promotion, direct application and use of knowledge for the benefit of the social, cultural and economic development of society. The motivation for expanding cooperation and knowledge sharing is to create value for the university and society. The University is committed to collaborating and sharing knowledge with industry, the public sector, and society. The University is open for cooperation with the public and private sector. The University establishes partnerships with various organizations, such as regional and local organizations, quasi-public or private organizations, enterprises (SMEs, large and international firms, social enterprises and entrepreneurs), schools and alumni. The university's scientific structures provide opportunities for the exchange of knowledge and ideas. The university interacts with the external environment through a variety of innovative activities, including the organization of scientific internships, practical training and joint research. The university organises events that encourage interaction with external stakeholders, such as lectures, joint seminars, and other events.

The respondents answered 20 questions ambiguously and the average answer score was 4.47.

Measures that should be taken by ENU:

1. Involve stakeholders to support the development of entrepreneurship in schools and colleges through the creation of developed relationships and greater participation.

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2. Have a direct financial or managerial interest in science parks and incubators, from participation to ownership, to enable employees and students to engage in innovation activities with the business / external environment.
3. Promote the mobility of employees and students through internships, creative vacations, special training programs (for example, doctorates in the industrial field, "sandwich programs").
4. Monitor research activities at the regional, national and international levels to identify new and relevant knowledge.
5. The university should integrate and have clear mechanisms for using entrepreneurial opportunities with commercial and industrial partners.

DIMENSION: The Internationalized Institution

Internationalization is the process of integrating an international or global focus into the development and delivery of education, research and knowledge sharing. The university has an internationalization strategy that combines an entrepreneurial program. The University actively supports the international mobility of its employees and students. International mobility brings with it new educational and research ideas, creates cross-cultural opportunities and long-term partnerships. In addition to attracting international staff and students, the entrepreneurial university actively encourages and supports the international mobility of its employees and students.

The University structures conduct training seminars on new approaches to teaching, learning and research on a global scale.

The university's curricula are developed taking into account international experience in accordance with the requirements of training for professional and social activities in an international and multicultural context, and the disciplines of partner universities are included in the curricula.

Respondents answered 21 questions, with an average response score of 4.49.

Measures that should be taken by ENU:

1. Improve international mobility programs through exchanges, scholarships, grants, and internships, linking the goals of international mobility with the university's entrepreneurial program.
2. Apply for European mobility programs, support staff, and students' applications for grants, scholarships and mobility programs.
3. Develop extensive links with international research networks and innovation clusters.
4. Ensure the active participation of all departments and faculties in international research partnerships and relationships.

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5. Develop doctoral programs in cooperation with other partner institutions (dual degree programs, joint degree programs).
6. Develop a curriculum that takes into account both "internationalization abroad" and "internationalization at home" for staff and students.

DIMENSION: Measuring Impact

Entrepreneurial/innovative universities should understand the impact of the changes they are making to their educational institution. The concept of an entrepreneurial/innovative university includes an institutional self-perception, external reflection and a science-based approach.

In order to become an entrepreneurial institution, a university can rethink how its staff and resources are used. The university may need to develop new HR strategies, engage external partnerships to overcome internal weaknesses, and provide new sources of financial support. The university regularly evaluates the teaching and learning of entrepreneurship in the institution, through a questionnaire at the end of the academic period. And regular monitoring of the expected results and impact of these activities is carried out at all faculties and departments.

Respondents answered 21 questions, with an average response score of 4.48.

Measures that should be taken by ENU:

1. Conduct a skills/competence audit in accordance with the business program to assess the development needs of ENU and take this information into account when developing programs.
2. Measure the impact of teaching and learning entrepreneurship at different stages of its implementation (beginning, end, point in time after) to get an accurate picture of the changes.
3. Establish internal indicators of success, such as the creation of new research ideas, the formation of joint business projects and relationships between universities, the number of startups created and additional companies.
4. Conduct regular exercises on the regional distribution of internationalization activities in training and research to identify priorities and further develop their business activities.
5. Use the results of success as a tool for reflection and analysis of ENU internationalization and entrepreneurial program.

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SWOT analyses based on self-assessment

STRENTGHTS	**WEAKNESSES**
University's national and international recognition - a wide range of internationally accredited educational programs - involvement of students and teaching staff in international, national and city events; - academic freedom, managerial and financial independence in promoting ENU on a global level;	- the dominance of public funding -inefficiency of mechanisms for commercialization of research results -lack of infrastructure facilities, training areas and laboratories, scientific laboratories equipped with certified equipment.
OPPORTUNITIES	**THREATS**
- globalization of all areas of activity through informatization and digitalization; - diversification of sources of financing, including attracting international investment,	- global trends in the market demand; - increasing competition in the global and national market; - influence of force majeure and unforeseen circumstances;

INTERNAL RISKS AND THEIR PREVENTION:

Risks of research and commercialization:

- reduction in the amount of state funding received for scientific research due to competition between universities and scientific organizations;
- lack of demand and lack of competitiveness of the results of scientific research.

Measures to prevent the occurrence of risks: Ensuring the quality of applications for government funding. Search for non-state alternative sources of research funding. A new marketing policy to attract financial resources and promote the results of scientific research to the market. Academic risks:

- reduced employment of graduates and the quality of training;
- competitiveness of educational programs;
- decrease in the quality of the contingent.

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Measures to prevent the occurrence of risks: Strengthening the requirements for the internal system of quality assurance of education and the implementation of quality standards. International accreditation of programs, certification of programs and graduates.

The main areas for further intervention on ENU preparedness for future challenges

Activity	**Dimension**	**Who**	When
To Engage stakeholders with strong entrepreneurial backgrounds from the private, public or volunteer sectors and non-academic backgrounds	Organizations	Department of academic affairs	2023
To Improve the entrepreneurship and soft skills through training activities	Seminars	Department of academic affairs, Entrepreneurship Center CACTLE	2023
To adjust the training and research workload of employees for those who take on the responsibility of supporting the development of entrepreneurship	Regulations on planning the teaching load	Department of academic affairs	2023-2024
To train the researchers, academics and students on legal and ethical policies and standards related to innovation and intellectual property rights	Seminars	Department of academic affairs, Technology Commercialization Department	2023
Provide support and training to staff to create a new entrepreneurship-related curriculum for learners, as well as interdisciplinary and hands-on learning	Curriculum	Department of academic affairs, Entrepreneurial center CACTLE	2023
Develop graduate programs in cooperation with other partner institutions (double degree programs, joint degree programs)	Programs	Department of academic affairs	2023-2024
In the educational programs of the university to include the possibility of mastering the skills	Minor Program	Department of academic affairs	2023-2024

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and competencies of entrepreneurship to obtain an academic degree			
To train the researchers, academics and students on digital dimensions	Seminars	Department of academic affairs, Technology Commercialization Department	2023
Strengthen the networking and greater participation to support entrepreneurship development	Events	Department of academic affairs, Technology Commercialization Department	2023
Expand access to student entrepreneurship clubs, societies, competitions and broaden the boundaries of awareness for student participation on international level	Accessibility of information, coverage	Department of academic affairs, Technology Commercialization Department, Information Center	2023-2024

The Strategy of ENU has identified five main strategic directions that are closely intertwined with each other. The first strategic direction of the ENU "Science and Innovation, Commercialization and Technology Transfer" ENU-INNOVATION UNIVERSITY" is aimed at improving the quality and effectiveness of scientific developments. ENU will conclude mutually beneficial international agreements with foreign partner universities, primarily with scientific organizations, to conduct joint research in priority clusters, including on the terms of co-financing. Key R&D performance indicators will be identified and the methodology for determining the relevance of research results will be modified. We will continue to promote the achievement of high scientific results, including the results of publication in highly rated scientific journals. NJSC “ENU will introduce a new policy of recruiting foreign and domestic scientists for joint research in priority clusters, and provide advanced training of scientific personnel. ENU will build new modern infrastructure facilities, including a multifunctional scientific and laboratory complex equipped with the latest equipment, and a modern scientific library, expand the opportunities for conducting scientific research through integration with the Nazarbayev University, the National Center for Biotechnology, and other scientific organizations. ENU will modernize the research ecosystem: it will increase funding for the purchase of certified scientific equipment; it will acquire virtual scientific laboratories; it will continue to work on the accreditation of scientific laboratories. ENU will digitize databases in scientific fields and provide access to global and national scientific resources.

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The second strategic direction of the ENU "Academic EXCELLENCE" ENU-ACADEMIC EXCELLENCE UNIVERSITY" " is to ensure the quality of the functioning of the academic system of education and science through the international orientation of educational programs and ensuring the quality of training, as well as the formation of an intellectual personality with an active civic position.

ENU will develop a unique model of a bachelor's, master's and doctoral degree graduate, prepare graduates for qualification confirmation, provide them with employment, promote their professional careers, and enhance the role of voluntary associations of graduates.

ENU guarantees the quality of educational programs through compliance with internal standards and ensures their recognition at the national and international levels through certification and accreditation procedures in specialized agencies, the results of subject ratings QS WUR by Subjects, Times Higher Education WUR by Subjects, NCE "Atameken". ENU will improve the skills of administrative staff in the field of education management and will involve foreign managers in the management of the educational process and educational programs. ENU will establish an International Advisory Board to assess the quality of educational programs and become a Center of Academic Excellence.

The third strategic direction of the ENU "Internationalization and improvement of international competitiveness" ENU-INTERNATIONAL UNIVERSITY "" is the internationalization of scientific and educational activities. ENU will expand the geography of the partnership and gain membership in new international associations and organizations. ENU will implement the MoveOn program and develop international partnerships by increasing the number of partner universities in the top 300 and top 200. ENU will ensure the development of a network of centers and representative offices abroad, including those implementing the ENU Global Campus program, and will open two branches. ENU will open a hub of universities in Central Asia and Europe and will ensure the activities of the WELCOME to ENU Club in order to increase awareness. ENU will expand the WELCOME to ENU program with a focus on students, receiving guests, delegations and parents. ENU will provide collaborations with international recruitment companies, including online platforms Apply.com, will open scholarship programs for talented international applicants and students.

The fourth strategic direction of ENU " Creating an innovative ecosystem for students and teachers of ENU – DIGITAL UNIVERSITY" " is the modernization of the infrastructure ecosystem and the creation of a digital ecosystem. ENU will create comfortable conditions for personal development and leisure activities, sports, increase the quality of collective use areas (open-spaces, co-working areas, creative

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spaces, individual spaces, relax spaces, etc.), create conditions for inclusive education, and eliminate all barriers to meeting basic educational needs. ENU will ensure regular salary increases for teachers, administrative and management staff, and training and support staff, create conditions for professional and career growth, and guarantee professional development at the international and national levels in accordance with the established procedure. ENU will unite corporate information systems and create a single information system for the main business processes. ENU will provide an automated exchange of up-to-date data for making management decisions, ensure the collection of standardized data, their reliability and analysis using Big Data and Artificial Intelligence. ENU will reengineer information systems and develop new components, integrate services into a single ecosystem and integrate the information system with government and other external databases.

ENU will create conditions for the individual educational trajectory of students at all levels using LMS, intelligent MOOCs, a digital library and intelligent assessment of learning outcomes. ENU will develop and market certified MOOCs, provide digital content and electronic methodological review and consulting services. ENU will create a system for monitoring, accumulating and analyzing scientometric information using Big Data, form a single repository of scientific results of scientists, and introduce electronic services for scientific guidance, consulting, reviewing and expertise.

The fifth direction of the ENU strategy "Improving the efficiency and transparency of the management and financing system of ENU-TRANSPARENT UNIVERSITY" is economic development and financial stability through ensuring competitiveness, as well as transparency of financial management and diversification of income sources. ENU will form and expand the pool of foreign partners who are ready and willing to finance the organization and implementation of joint research projects. This, in turn, will lead to the expansion of scientific products, which, through commercialization, will be an important source of financial revenue. ENU will move to a new principle that supports the transition from the economy of "saving" to the economy of development and will annually increase investments in the development of personnel and infrastructure, including the development of the research base. The task of a successful transition to the principle of economic development will require the active implementation of marketing and fundraising, methods of functional and cost analysis and foresight, identification and minimization of unproductive costs, systematic decentralization of the budget (up to the transfer of it to the level of ENU higher schools), while increasing responsibility for its administration. The integration of scientific activities, the educational process and practical activities at all levels of higher and postgraduate education will be strengthened:

1) the share of teaching staff involved in research activities will increase;

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2) the share of undergraduates and doctoral students studying under the postgraduate education program will increase from the total number of students;

3) the total number of research projects will increase.

An academic system of education and science will be established:

1) the number of educational programs developed jointly with the strategic partner will increase;

2) the share of teaching staff who have passed certification taking into account the results of scientific activity will increase;

3) the share of scientific activity in educational programs at all levels of education will increase.

The research activities of ENU will be strengthened:

1) the number of scientific articles published in international rating journals indexed by the Web of Science will increase;

2) the average citation rate of scientific articles published in international rating journals indexed by the Web of Science will increase;

3) the share of income from scientific activities in the ENU budget will increase";

4) the share of expenditures on scientific activities from the "ENU "budget will increase for deducting from it the amount of funds from external sources of research funding.

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