













The Report on Toraighyrov University preparedness for future challenges

Toraighyrov University, Pavlodar, Kazakhstan



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

TRIGGER partners

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| Technical University of Kosice <i>Slovakia</i> |  TECHNICKÁ UNIVERZITA V KOŠICIACH |
| L.N. Gumilyov Eurasian National University <i>Kazakhstan</i> |  EURASIAN NATIONAL UNIVERSITY |
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1. Introduction

The Report on Toraighyrov University 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. The Report provides the first practical insight 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 self-assessment of ToU was carried out in the period between 4/19/2021 to 5/25/2021. The respondents included top management of the university, faculty, researchers, graduates, employers, professional and support staff. Altogether 60 respondents were involved.

2. University in a glance

Toraighyrov University (TOU) is one of the largest universities in Kazakhstan. It is located in Pavlodar oblast, which is one of the most significant and most recognised industrial regions in Kazakhstan. Pavlodar city has the population of around 450, 000. The city is situated on the bank of the Irtysh River, which is the longest river in Central Asia, flowing from China through Kazakhstan to Russia. ToU was established in 1960 and started as Pavlodar Industrial Institute. It prepared engineers for a wide range of industries all over Kazakhstan and beyond. In Pavlodar region, oil and gas refining, metallurgy, steel production, electrical energy production, chemical engineering, aluminum, ferro-alloy production are the main industries. The Bayanaul National Park with massive pine forests is located within 200 kms from Pavlodar. ToU owns facilities in Bayanaul and has strong research collaboration with the Bayanaul National Park Bayanaul National Park. The main agriculture products are wheat, buckwheat, sun-flower, potatoes, carrots.

ToU is the biggest university in the north-east of Kazakhstan with student body exceeding 8 000. ToU trains specialists in a wide range of fields, both technical and humanities. ToU alumni are employed in all industries and companies of Pavlodar region and beyond.

According to the annual national general ranking, ToU is one of the five leaders among the best multidisciplinary universities in Kazakhstan. In 2020, the university entered 1000+ of QS World University Rankings.

3. University organisation and management

ToU is one of the largest organisations in Pavlodar region with over 500 faculty members, 200 researchers and 300 non-academic staff. The total budget of ToU exceeds ten million Euros (10, 282, 450 Euros), with 7,623,460 from the public sector, 2,658,460 from private sector and 525, 688 from research activities in 2021. Regarding representation of ToU in global international ranking, ToU is ranked 1201+ in 2021 in QS WUR, 251-300 in QS EECAQ (by subject), and 5150 in 4 International colleges & universities.

There are eight faculties (Faculty of Engineering, Faculty of Power Engineering, Faculty of Computer Sciences, Faculty of Natural Sciences, Faculty of Agricultural Sciences, Faculty of Economics and Law, Faculty of Humanities and Social Sciences) and 28 departments at ToU. There are eight research centers at the university. ToU offers programs in three levels: undergraduate, graduate and postgraduate. Every year, more than 1000 students graduate from ToU.

ToU is a Non-Commercial Joint Stock Company and reports to the Ministry of Education and Science of the Republic of Kazakhstan.


ToU is certified for Quality Assurance. It implements and maintains a Quality Management System ISO 9001:2015. The following areas are in the scope: research and development, development and implementation of the state program of higher education on the drafting of the higher and secondary education in accordance with the state standardisation and the subsequent education in the field of licensing. Link - <https://tou.edu.kz/images/stories/pdf/certificates.pdf?t=02032022>

ToU is accredited by two agencies: “Russian Register” and “IQ Net” according to the quality management system ISO 9001:2015. It is also accredited as a subject of research and research-technical activities.

ToU regularly conducts trainings of administrative and technical staff in such areas as management in higher education, ICT, leadership, best practices, etc. In 2020 and 2021, 5% of staff members participated in training opportunities abroad (Russia – Tomsk National University).

ToU has its own brand, which includes the university logo, slogan, and branded products. The university slogan is “ToU for You”. The branded products include pens, notebooks, paper bags, and caps with the university logo.

Trademark Information

| No | Trademark name | Author | Date and application number |
|----|--|----------------------------|---------------------------------|
| 1. |  <p>TORAIGHYROV UNIVERSITY</p> | NJSC Toraigyrov University | No 72811, issued April 16, 2021 |

Toraighyrov Media Centre is a structural part of ToU, which is in charge of marketing and external communication of the university. Main functions of the Centre include informational support of events held by ToU, interaction with media representatives and the public, holding briefings and press conferences, coordination of students’ broadcasting “ToU FM”, and organisation of marketing campaigns. It also regularly produces videos and documentaries about the main achievements of faculties, departments, scholars, etc. Toraighyrov Media Center promotes ToU in social networks and publics, including Instagram, Facebook, Telegram, Tilt ok, VK, OK, You Tube. The total number of ToU followers in social nets is over 30 000. Instagram, VK and Tik Tok have the most extensive number of followers. ToU has created a LinkedIn account, but it is currently inactive. ToU is not represented yet on Twitter. The Office of Organizational Work is responsible for internal communication. It reports directly to ToU Rector. International communication is coordinated by International Office.

All three departments function according to the developed plans of work and annually report at the meetings of the ToU Academic Council. Academic Council is one of the forms of collegial management of the university. ToU Academic Council meets once a month and discusses all areas of ToU activities.

ToU has a website, which provides up-to-date information on all types of activities, including academic, research, social, both at the regional, national and international levels. The website is available in three languages: Kazakh, Russian and English. The main page is represented by multipage site with additional transitions to other portal systems. Website design corresponds to the corporate identity of the university and keeps up with current web design trends. ToU IT Hub is in charge of the design, the clarity and objectivity of the presented information. In general, the information is clear and well structured, but the English version of the website needs reorganisation. ToU website is www.tou.edu.kz

ToU has printed and electronic Brand Book in three languages (Kazakh, Russian, and English). Brand Book contains information about ToU history, academic and research activities, study programs, ToU structure, and international activities. Electronic Brand Book is available on ToU website https://tou.edu.kz/upload/tou_en.pdf

Freshman Guide is developed to newly enrolled ToU students. The Dean's Offices distribute them in printed form to all first year students on September 1, every year. Freshman Guide is available in Kazakh and English. ToU brochures are developed in three languages (Kazakh, Russian, and English). Admissions Office distributes the brochures during the ToU admission campaign. The electronic versions of these documents are available in students' personal accounts on ToU website.

ToU does not have merchandise for sale on campus.

ToU regularly organises activities with marketing and communication impact:

1. On November 29, 2021 ToU held a Makeathon TOM. Makeathon is a 72-hour marathon, during which the makers - designers, inventors, engineers and physicians - develop appliances for the need-knowers – disabled people. Makeathon is an annual event held by ToU. <https://www.instagram.com/reel/CW3jxFSjQmj/?igshid=YmMyMTA2M2Y%3D>
2. Social challenge As Bolsyn is an annual event organised at ToU students' dormitories. It is a culinary battle between ToU top managers for the best made dish. The prepared food is made for students who live in dormitories. <https://24.kz/ru/news/social/item/527617-chellendzh-as-bolsyn-startoval-v-pavlodare>
3. Initiation into Students – an annual event for first year students. During the event, the students are offered lots of fun activities, and contests with prizes and awards. <https://www.instagram.com/p/B3M-OuWHqNg/?igshid=MDJmNzVkMjY%3D>

4. Education

There is a positive dynamic in the number of study programs offered, the number of student enrolment and the internationalisation of ToU academic activities. In 2020-2021, the total number of students at all three levels was 8 522, the total number of international students was 238:

- a) Bachelor – 7402, International students – 222;
- b) Master - 1044, International students – 16;
- c) PhD - 76, International students – 0.

In 2020-2021, ToU offers 150 study programs in Kazakh and Russian languages and 9 programs in English:

- a) Bachelor level – 79 programs, 2 of them are in English - 6B07109 Oil and Gas Refining and 6B05102 Biotechnology;
- b) Master level - 58, 7 of them are polylingual (30% in English);
- c) PhD - 13, no programs in English.

ToU offers 6 double degree programs and 5 joint degree programs. Double degree and joint degree programs are developed jointly with universities in Russia and Belarus:

In 2021, 77% of ToU study programs are accredited by international accreditation agencies.

- 80 study programs are accredited by IQAA;
- 38 study programs by IAAA;
- 25 study programs by KazSEE
- 8 study programs by ARQA.

ToU implements the mobility programs of faculty, staff and students. Mobility programs are administered and funded by different organisations, including the Ministry of Education and Science of the Republic of Kazakhstan, Erasmus+ program, Bolashak scholarship, Fulbright, IEASTE, DAAD, mobility programs within the funded research and capacity building projects, self-funded mobility. Faculty of Humanities and Social Sciences and Faculty of Computer Sciences are the leading faculties in the number of students' mobility. The main partners for mobility programs include the following:

- Palacky University in Olomouc, Check Republic;
- University Castilla la Mancha, Spain;
- Lodz University, Poland;

- Wroclaw University, Poland.

The table below shows the mobility data in 2020-2021:

| | Incoming | Outgoing |
|---|-----------|-----------|
| Number of students | 12 | 44 |
| Number of faculty | 8 | 5 |
| Number of non-academic staff | - | 2 |
| Number of international student internships | - | 82 |

In 2019, Alumni Association was founded at ToU (<http://tou.edu.kz/arm/storage/files/609-ce5d9ed8894.55495816.pdf>). ToU Alumni Association is aimed at the development and enhancement of the alumni network, and the support of activities and initiatives of ToU graduates and current students in further promotion of ToU.

ToU has established sustainable partnerships with more than 200 companies and organisations which are interested in taking interns. Below is the list of the companies and organisations with the highest number of student internship intake and employment in 2021:

| No | Name of organisation | 2021 |
|----|---|------|
| 1 | Joint-Stock Company "Aluminium of Kazakhstan" | 81 |
| 2 | Ltd «KSP Steel» | 50 |
| 3 | Ltd "Pavlodar Petrochemical Plant" | 45 |
| 4 | Joint-Stock Company "Kazakhstan Electrolysis Plant" | 28 |
| 5 | Aksu Ferro-Alloy Plant | 24 |
| 6 | Ltd "Neftekhim LTD" | 18 |
| 7 | Joint-Stock Company "Pavlodar Energo" | 15 |
| 8 | Joint-Stock Company "Eurasian Energy Corporation" | 15 |
| 9 | Joint-Stock Company «ERG Service» | 14 |
| 10 | Joint-Stock Company "Pavlodar Electronet Company" | 5 |
| 11 | Ltd "Casting" | 4 |

| | | |
|----|--------------------------------------|------------|
| 12 | Ltd “Rubikom” | 4 |
| 13 | Joint-Stock Company “KazEnergoCable” | 3 |
| 14 | Ltd “Prommashcomplex” | 3 |
| 15 | Joint-Stock Compan “SUT” | 3 |
| 16 | Joint-Stock Company “KazTransOil” | 2 |
| 17 | Ltd “Format Mach Company” | 2 |
| | Total | 316 |

5. Research and Innovation

The main directions for the development of research and innovation work at the university are the following: increasing the volume of funded research, strengthening the publication activity of teaching staff, including in journals with an impact factor, increasing the Hirsch index, establishing contacts and implementing joint projects with foreign partners, improving the material and technical bases.

In 2021, there have been published 86 articles in high impact journals indexed by WoS and Scopus. In addition, 55 articles were published in national peer reviewed journals. ToU issues series of journals “Vestnik of Toraighyrov University” in eight areas, such as Power Engineering, Chemistry and Biology, Physics, Mathematics and Computer Science, Pedagogy, Philology, Economics, and Law. The highest number of publications in high impact journals are in the areas of power, mechanical, chemical, construction engineering, natural sciences, and humanities.

In 2021, there were signed 111 agreements within the funded projects under grant, program-targeted and economic contract financing with a total amount of 368 757, 5 thousand KZT. In terms of funding sources:

- Grant financing of the Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan - 19 projects with a total of 217 552, 483 thousand KZT;
- Targeted funding of the Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan - 3 projects with a total of 28 054,057 thousand KZT;
- International organisations - 5 projects with a total amount of 55 877,005 thousand KZT ();
- Republican organisations - 87, total 151 204,982 thousand KZT. The largest customers are such companies as Kazakhstan Electrolysis Plant, Pavlodar Petrochemical Plant, Neftekhim Ltd.

The level of income from R&D and commercialisation is gradually increasing due to the receipt of grants under state budget programs, established relations with regional administrations and private companies.

Compared to 2020, when the amount was 317 620, 649 thousand KZT, the total amount of income from scientific activities increased by 51 136,851 thousand KZT.

Within the Visiting Professor program, funded by the Ministry of Education and Science of the Republic of Kazakhstan, ToU annually hosts international researchers. The program funds short-stay visits (4 weeks). In 2021, eight researchers visited ToU from universities in Turkey, Czech Republic, Russia, Iraq, and Germany.

In 2020 and 2021, 10 (ten) researchers are employed at ToU from Russia and Turkey.

Below are the indicators for research fellowships:

- a) Incoming mobility (Fulbright, DAAD) - **6**
- b) Outgoing mobility (DAAD, Fulbright, Bolashak) - **8**
- c) MSc, PhD and postdoc research mobility (incoming) **780**
- d) MSc, PhD and postdoc research mobility (outgoing) **883**

Innovation indicators

- a) Number of new patent applications – national: **2020 – 17, 2021 - 14**
- b) Number of new patent applications – international - **0**

6. International cooperation and internationalisation

Internationalisation of education and research is one of the strategic goals of ToU. Key objectives are set: building sustainable partnerships with foreign universities and organisations through joint funded projects, inbound and outgoing academic mobility of faculty, staff and students, double degree programs, attracting international students, etc. Currently, ToU has signed agreements, memoranda of understanding with 225 foreign universities and organisations. ToU is a member of several international associations, including Shanghai Cooperation University Organization, Siberian Open University, IAESTE, etc.

Center for Bologna Process and Academic Mobility under the Ministry of Education and Science of the Republic of Kazakhstan annually issues grants for international students and ethnic Kazakhs, citizens of foreign countries. ToU awards grants on a competitive basis for foreign students. Currently, at ToU, 46 foreign students are given national grants (Mongolia, China) and 2 students are given institutional grants (Nigeria).

International Office coordinates all activities of ToU in the field of internationalisation. Head of International Office is a member of ToU Rectorate Council and Academic Council. International activities are both top-down and bottom-up driven. Faculty and staff members and students can initiate activities, which are aimed at establishing, enhancing, and implementing of international partnerships in academic, research, and social areas.

ToU complies with the Three Language Policy declared by the Government of the Republic of Kazakhstan. English Signage is implemented throughout ToU campus. All structural departments have at least one staff member who is fluent in English. Internal communication is mainly in Kazakh and Russian. ToU website is available in English. University leaflets and newsletters are also available in English.

The grading system fully complies with the European standards. It fully meets the European requirements and standards of students' grading.

7. Informatisation

The university has a proprietary educational process management system ELEARNING CDT. The Authorship Certificates are available. The system covers all educational processes. Each student, faculty and staff member has personal portal in the system. ToU has an authorial platform **dot.tou.kz** where all students and faculty members have access to the courses to support the educational process. Each incoming student or faculty receives an access to the system.

The university provides an automated HR work place, where HR office announces information about available positions, current vacancies, staff flows, etc.

ToU has a system of electronic document management, which is available to all faculty and staff members SEDO.tou.edu.kz

The International Strategy is a structural part of The Strategy of ToU Development for 2020-2024. The annual objectives of internationalisation are discussed at Rectorate's meeting which are held weekly

and at the meetings of the Academic Council, which are held once a month throughout the academic year.

No minimum knowledge of English is required for the internal communication, though applicants for Master and Doctoral programs are required to prove foreign language proficiency by obtaining internationally recognised certificates (IELTS, TOEFL, Duolingo).

ToU restructured its organisation by separating International Office from the Quality Assurance and International Cooperation department in 2021.

ToU has bilingual forms of Memoranda of Understanding and Institutional Agreements with foreign countries.

ToU has a protocol for international partnerships. The following documents are developed:

- Regulation on International Scholars;
- Standardised agreements with international scholars on co-supervision of doctoral theses;
- Regulation of International Students' Adaptation.

All procedures connected with the admission of international students are available in both national, Russian and English languages. The following documents are available in English:

- a) Application Forms
- b) Transcripts
- c) Diploma or Diploma Supplement (or equivalent)

Making campus more internationalised (more international staff and students) is the most important improvement to ToU internationalisation model. The internationalisation activities that ToU focuses at include the following:

- a) Student mobility
- b) Academic staff mobility
- c) Bilateral or multilateral cooperation

- d) International traineeship
- e) Strategic partnerships
- f) Study programs in English
- g) International capacity building projects
- h) Joint/double degree study programs with international partners
- i) International research activities

Throughout the academic year, ToU offers summer schools and intensive trainings for faculty and students in a wide range of areas. Some examples include the following:

- In June 2018, there was organised a 2-week summer school in the area of entrepreneurship jointly with Financial University under the Government of Russia, Moscow. The students of ToU had an intensive training on the basics of entrepreneurship and made site visits to the most prominent energy enterprises of Pavlodar region;
- Annually, every June, a Physics' Summer School for students and faculty is held in ToU summer camp in Bayanaul. Most recognised scholars and researchers in the area of physics from Al Farabi Kazakh National University and L. Gumilyev Eurasian National University are invited to conduct lectures for ToU students and faculty;
- ToU IT School offers free training in a wide range of IT areas, such as "Web Design and Web Programming", "Photography", "SMM&SEO", etc.;
- Within the Joint German Faculty, established jointly with Anhalt University of Applied Sciences, Germany, intensive German language training is available for students of technical sciences.

ToU offers Distance Learning and Blended Learning technologies for students. Information System (IS) E-learning CDT (www.tou.edu.kz) represents a unified ecosystem. IS includes many components and subsystems, one of which is represented by ToU Portal of MOOCs (<https://openu.tou.kz/>). Some available MOOCs include the following:

- CAD/CAE Systems;
- Biological Genetics;
- Taxes. Risk Management;
- Technology of Metallurgic Production;
- Analytical Chemistry;
- Basics of Radiation Safety;
- Robotics.

ToU students have access to a multinational work environment during their academic path. All internal and external documents as well as syllabi and study programs are available in Kazakh, Russian and English depending on the language of instruction.

ToU website is available in three languages: Kazakh, Russian, and English. International Office is focused and responsible for ToU international promotion. ToU regularly participates in events that increase its international visibility, like Erasmus Days, International Fairs, International Summer Camps and Schools, International Weeks organised by ToU and ToU partners. Within the period from 2016 to 2022, ToU took part in international events in countries, as the USA, Check Republic, Spain, Poland, Germany, Greece, Russia, India, etc.

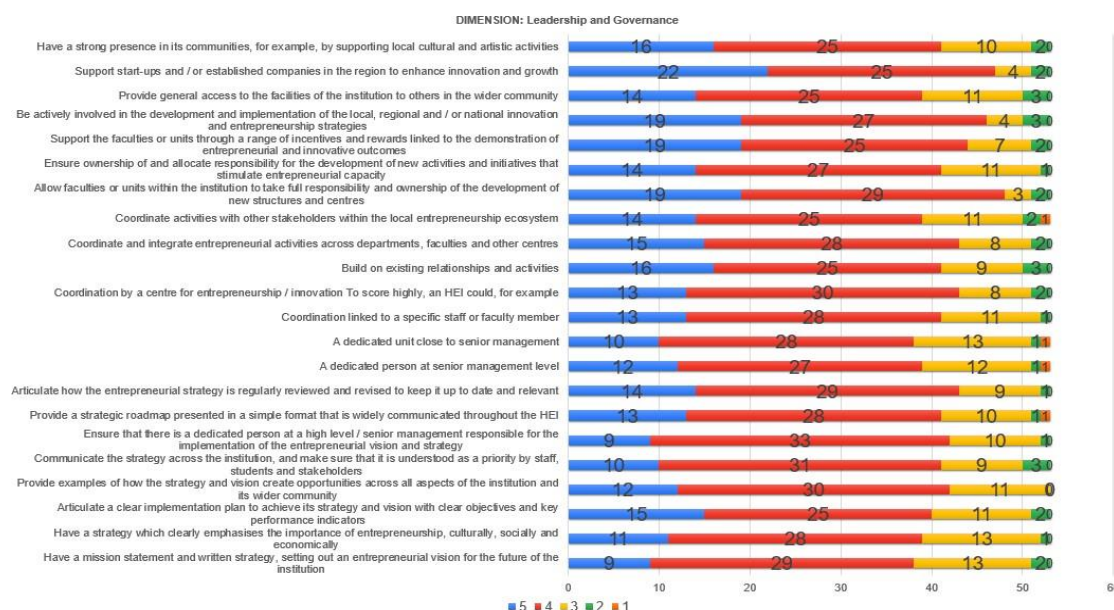
8. Self- assessment of dimensions based on HEINNOVATE

The survey was aimed at self-analysis of the university by the staff. This survey was conducted by 56 people, among there was the Rector, 2 Vice-Rectors, all Deans, 1 Deputy Dean of each faculty, Representatives of Administrative Staff, 2 Professors from each department teaching entrepreneurship disciplines.

The survey was conducted in May 2021. The questions in the questionnaire related to the following criteria:

- Leadership and management
- Organisational capacity: Funding, People and Incentives
- Teaching and training in entrepreneurship
- Training and support of entrepreneurs
- Digital transformation and opportunities
- Knowledge sharing and cooperation
- Internationalisation

DIMENSION: Leadership and Governance

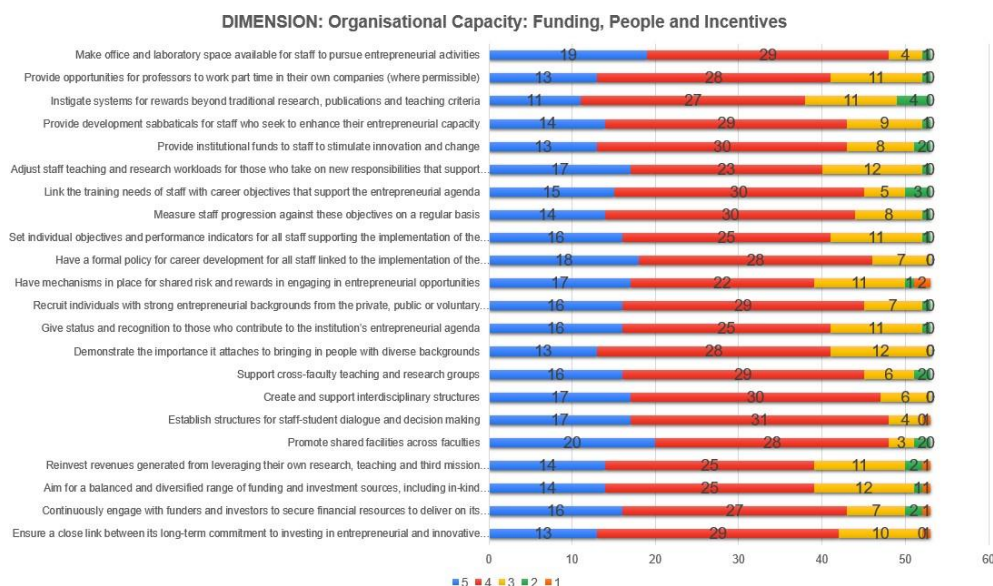


In this dimension, the respondents believe that the university needs to develop entrepreneurial activity in order to achieve its strategic goals. At the same time, the university needs to have key resources to maintain and develop its entrepreneurial abilities. The respondents believe that the university is actively developing entrepreneurial skills, and there is also great potential for the implementation and creation of new entrepreneurial relationships and interactions throughout the university.

The proposed five measures by ToU:

1. Take an active part in the development of regional business sphere. We have this point in our Strategy – “Strong University – Strong Region”.
2. Strongly support cultural life of the Region. Provide “Open Space” for the community and its interests.
3. Support startups in the Region, especially ones of our students`, because Entrepreneurship is a major part of the university’s strategy. ToU has profiled itself as the entrepreneurial university.
4. Develop the vision and mission of the university, which has an impact on the way it shapes its leadership and governance.
5. Create a clear plan for implementing its strategy and vision with clear goals and key indicators.

DIMENSION: Organisational Capacity: Funding, People and Incentives



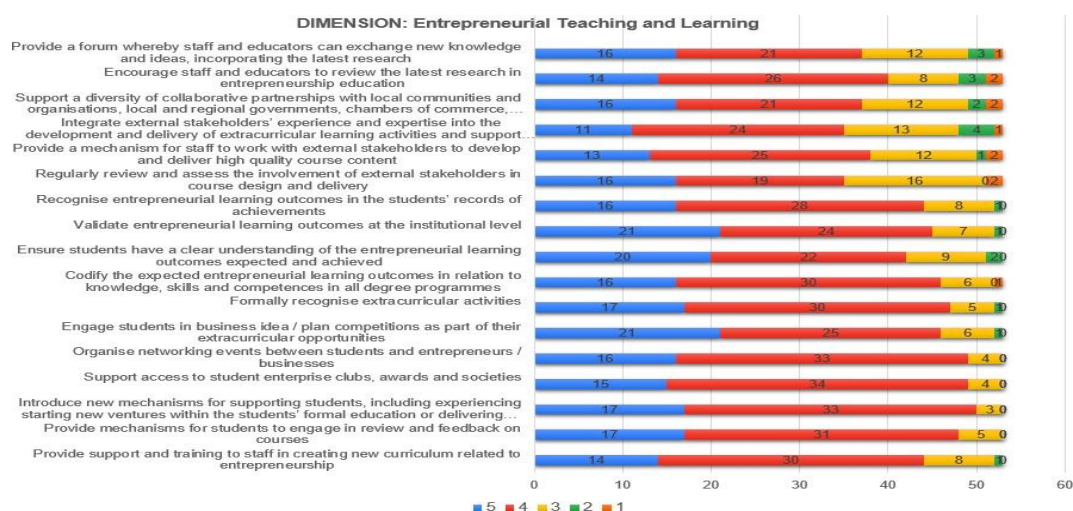
As the results of the survey in this direction show, the management and staff of the university need to carry out detailed work to improve these indicators. Funding, investment, people, experience and knowledge are key resources. More investment needs to be attracted.

The proposed measures taken by ToU:

1. Implement new criteria about entrepreneurship in KPI for the staff.
2. Improve the consistency with employers and partners to enable more effective learning.
3. Pay more attention to interdisciplinary approaches.
4. Emphasise organisational strengthening with teachers and students.
5. Strengthen the work with sponsors, employers, who can help improve the success rates of graduates.
6. Measure performance across multiple domains to reflect capacity development investments in both short-term and long-term aspects of performance.

DIMENSION: Entrepreneurial Teaching and Learning

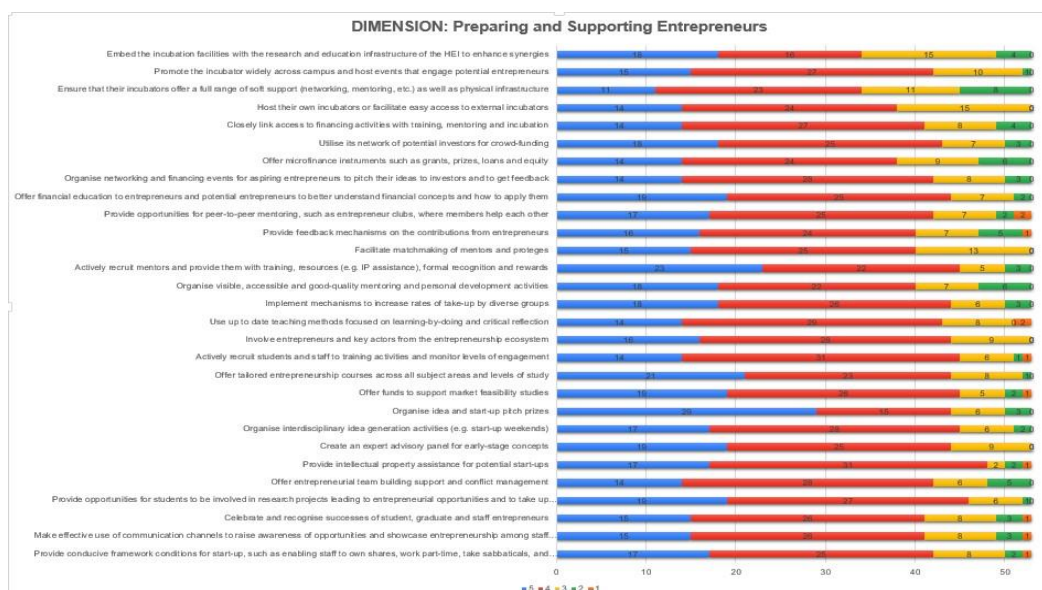
Interest in entrepreneurship education is growing over the world. There is a great variety of different views in the field of research concerning the content and structure of entrepreneurship courses, but no comprehensive study has yet been done in which these competing views are clearly articulated as rivals and tested against each other. There is also a lack of program evaluations. Therefore, the assessment of DSU staff regarding evaluation of Entrepreneurial Teaching and Learning processes is highly marked. Despite the fact that this process gets high scores from the respondents, the potential of entrepreneurial education is not utilised in the whole university.



The proposed measures taken by ToU:

1. Focus on the development of skills or attributes that enable the realization of opportunity of the students as future potential businessmen and employers.
2. Conduct competitions for business projects and startups.
3. Conduct more joint events for students and entrepreneurs to learn from their experience and improve their skills.
4. Implement subject-based entrepreneurial curriculum in all spheres of education.

DIMENSION: Preparing and Supporting Entrepreneurs



For this section, the average response score was 3,8 points.

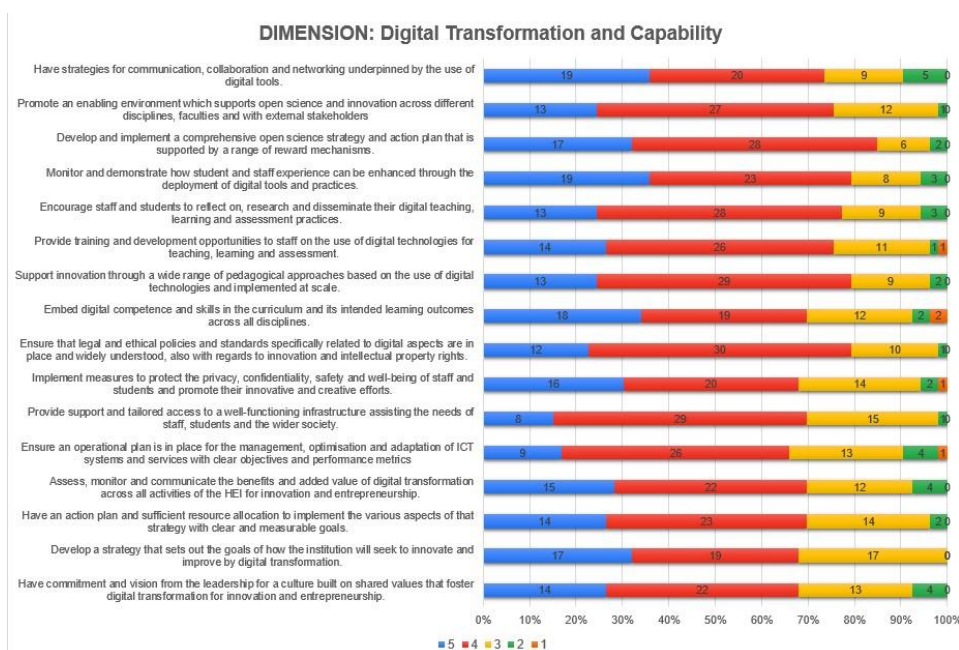
- Offer entrepreneurial team building support and conflict management 3.6
- Host their own incubators or facilitate easy access to external incubators 3.8
- Ensure that their incubators offer a full range of soft support (networking, mentoring, etc.) as well as physical infrastructure 3.7
- Embed the incubation facilities with the research and education infrastructure of the HEI to enhance synergies 3.75

The proposed measures taken by ToU:

1. Organise forums and meetings for sharing and discussing challenges of entrepreneurs.
2. Provide students with help from a personal mentor, and access to large-scale networking events.
3. Strongly collaborate with big companies that can offer exclusive discounts on hotel, travel, business and lifestyle products and services.
4. Create Special Club “Young Entrepreneur Council” with specific functions, including monitoring of more experienced mentors.
5. Offer startup financing, networking opportunities and a support network for social entrepreneurs.

DIMENSION: Digital Transformation and Capability

Based on the survey results in this dimension, regarding Digital Transformation and Opportunities, the weakest point is open scientific and innovative practice, which should be widespread in all universities. At the same time, while the relative strength the commitment of the university to digital teaching methods, training and assessment.



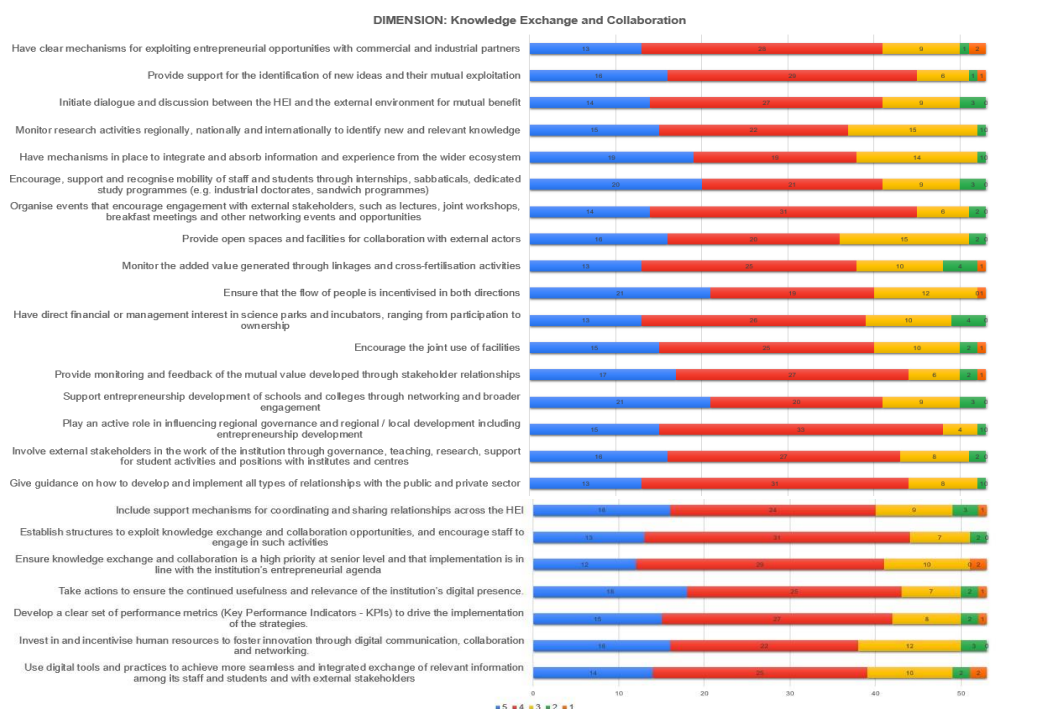
The proposed measures taken by ToU:

1. Tie digital transformation strategy to business outcomes and goals.
2. Leverage technologies to create value and new services for various stakeholders.
3. Support staff and students to innovate and acquire the capabilities to adapt to changing circumstances.
4. Conduct trainings for cloud computing, big data, advanced analytics, artificial intelligence, machine learning and mobile/mobility.
6. Introduce computer literacy in the curriculum of all specialties.
7. Create a new faculty “Computer Science”.

DIMENSION: Knowledge Exchange and Collaboration

In this dimension, the respondents noted that knowledge sharing and collaboration at the university were ranked lower than other dimensions. The average score is about 3. The university annually sends

students to practice, but the developed mechanism does not meet the requirements of the labor market. Therefore, ToU attaches great importance to conducting research on the labor market and cooperation with stakeholders to create a new model of motivation for expanding cooperation and knowledge exchange.



The proposed measures taken by ToU:

1. Create a Collaborative Workspace at the university for partners, staff and students.
2. Offer team members an incentive to be innovative so they are encouraged to contribute ideas.
3. Provide Helpful, Accessible Resources.
4. Provide comprehensive employee training.
5. Implement a long-term knowledge sharing strategy.

DIMENSION: The Internationalised Institution



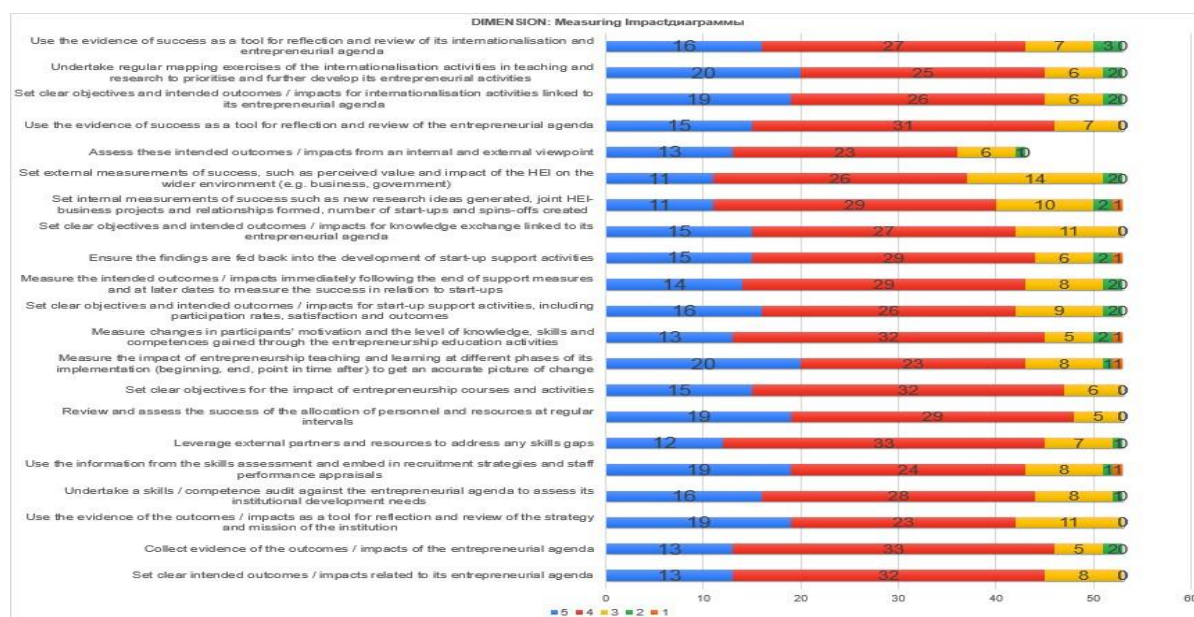
In this section, respondents note that for a university to be recognised, the most important role is played by explicit support of its staff and students in their international mobility, while the university should intensify its efforts to attract international and entrepreneurial staff. The average score is 3.8

The proposed measures taken by ToU:

1. Support the application of staff and student to mobility grants, scholarships and programmes.
2. Increase the number of double degree and joint programs with modules focused on entrepreneurship and innovation, developed in collaboration with ToU partner universities.
3. Collaborate more intensively with agencies and organizations to attract international faculty and students.
4. Increase the number of programs in English to attract international faculty and students and make campus more internationalized.
5. Support international partnerships and networks which add value to teaching entrepreneurship.

DIMENSION: Measuring Impact

In this dimension, respondents rated all items quite high. The average score for this dimension is 3.9. ToU positions itself as a classic research university, and at the same time strives to achieve entrepreneurial goals.

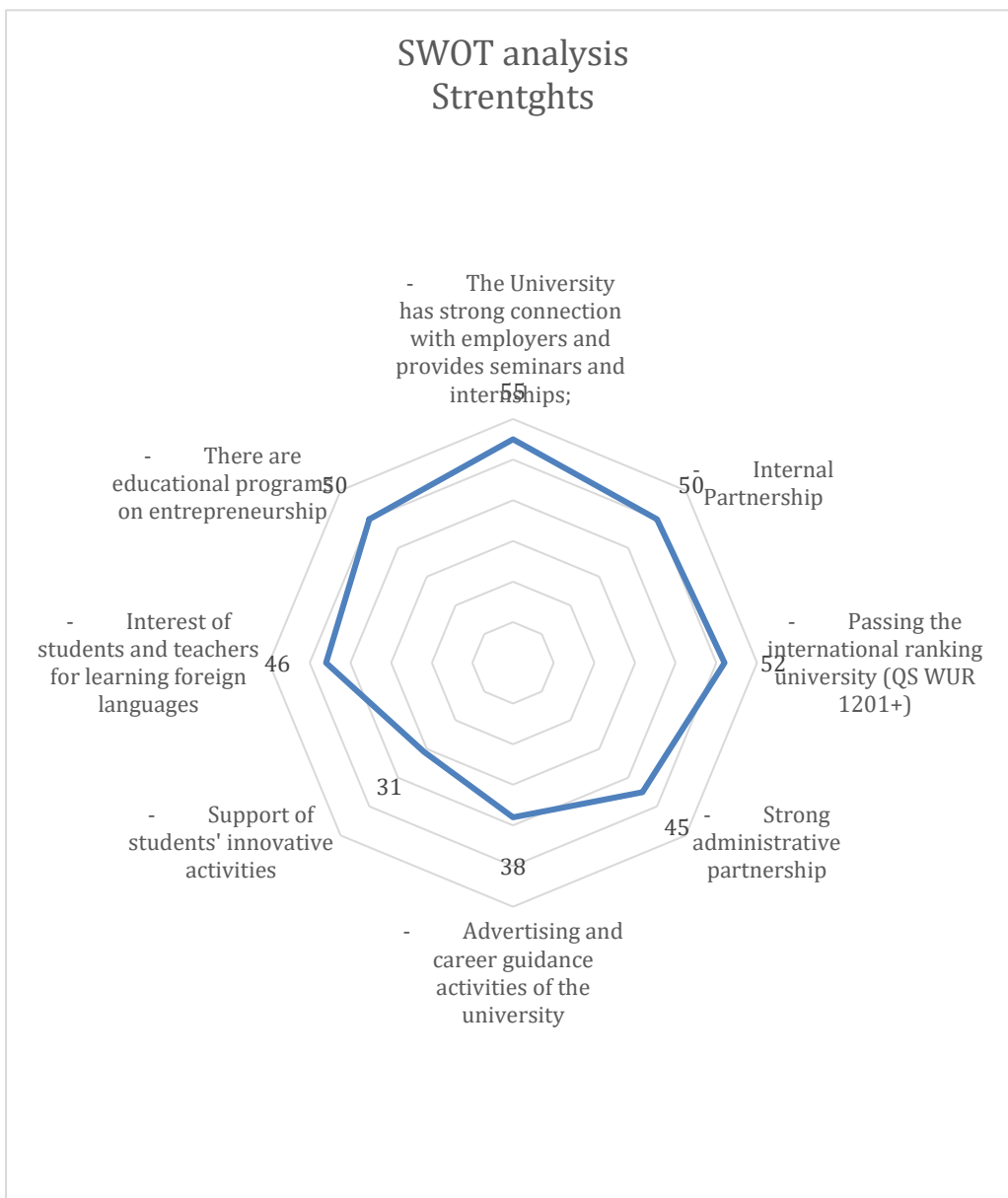


The proposed measures taken by ToU:

1. Help students and staff to form a holistic view of social, environmental, fiscal and economic dimensions – the big picture.
2. Help students and staff to evaluate options and optimise trade-offs – make better decisions.
3. Convey information about success businesses to stimulate staff and students.
4. Develop the ability to compare strategies and make business decisions such as investment choices using quantified data, and evaluate the total impact of each decision and choice they make.
5. Develop a better understanding of the social, fiscal, environmental and economic impacts of their activities, while still, of course, making a profit.

9. SWOT analyses based on self-assessment

| STRENGTHS | WEAKNESSES |
|---|--|
| <ul style="list-style-type: none"> - The university has a strong connection with employers and provides seminars and internships; - Internal Partnership - Passing the international ranking university (QS WUR 1201+) - Strong administrative partnership - Advertising and career guidance activities of the university - Support of students' innovative activities - Interest of students and teachers for learning foreign languages - There are educational programs on entrepreneurship - Exhibition of projects and innovative achievements of students and teachers - Database employer/company and close contact with him | <ul style="list-style-type: none"> - Deficiency of international researches - Lack of international capacity building projects - Small quantity of double degree study programs with international partners - Lack of students and teachers' study and internships abroad - Small quantity of scientific and educational-methodical publications in foreign editions - Deficiency of innovation activities |
| OPPORTUNITIES | THREATS |
| <ul style="list-style-type: none"> - The growth of the interest from the side of employers, entrepreneurs, heads of enterprises; - Variety of mobility programs, international programs of entrepreneurial education; - Opportunities for of students and teachers` study and internships abroad - Demand for specialists with integrated knowledge - Partnerships with large companies in training and employment - The use of Internet technologies to advertise the university and train specialists online - Demand for personnel certification and professional development services | <ul style="list-style-type: none"> - Financial crises - Restrictions on international cooperation in all areas of university activities in connection with the threats of COVID-19 - Lack of sources of financing in the economic field of education - Demographic situation - Geographical remoteness of the leading economic scientific schools - High competition in the educational services market - Increasing the cost of education - Brain drain |



10. The main areas for further intervention on ToU preparedness for future challenges

| Activity | Dimension | Who | When |
|--|---|--|--|
| 1. Take an active part in the development of regional business sphere. | Researches of the University are attracted to solve the economical, ecological and other problems of the Region | Researches | Constantly |
| 2. Strongly support cultural life of the Region. | 3 events | Department of Social Work | 1 event – 2021 2 event – 2022 3 event - 2023 |
| 3. Support startups in the Region, especially ones of our students` | 2 startups | Scientific – Innovative Hub | July, 2022 |
| 4. Develop the vision and mission of the university | Vision and mission | Office of Accreditation and Quality Assurance | 2021 |
| 5. Implement new criteria about entrepreneurship in KPI for the staff | Criteria | Office of Accreditation and Quality Assurance Scientific – Innovative Hub | April, 2021 |
| 6. Create Special Club “Young Entrepreneur Council” with specific functions, including monitoring of more experienced mentors. | Club “Young Entrepreneur Council” | Scientific – Innovative Hub Faculties | 2023 |

| | | | |
|--|---------------------------------|--|---|
| 7. Organize forums and meetings for sharing and discussing challenges of entrepreneurs. | 2 events | Scientific – Innovative Hub Faculties | 1 event – 2022 2 event - 2023 |
| 8. Tie digital transformation strategy to business outcomes and goals. | Digital transformation strategy | IT HUB | July, 2021 |
| 9. Conduct trainings for cloud computing, big data, advanced analytics, artificial intelligence, machine learning and mobile/mobility. | 5 trainings | IT HUB Faculties | 1 training – 2021 2 trainings – 2022 3 trainings – 2023 |
| 10. Create a new faculty “Computer Science” | Faculty | Rector Vice - Rectors HR IT HUB | September, 2021 |

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