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### INSTITUTIONAL INTERNATIONALIZATION STRATEGY OF THE TECHNICAL UNIVERSITY OF MOLDOVA FOR THE PERIOD 2019 – 2023

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"Internationalization is a process by which national systems of higher education and research intertwine on a universal scale to innovate, understand, use, capitalize on and disseminate new results of knowledge with superior effectiveness."

Mihai Korka

"Internationalization is perceived either as a strategy of an institution that responds to the demands of globalization, or as a way for higher education institutions to prepare citizens to enter a globalized world."

Altbach

#### **PREAMBLE**

In the context of integration in the European Higher Education Area and scientific research, the Technical University of Moldova promotes international cooperation relations in order to internationalize teaching and research activities as a priority of local higher education engineering, taking into account that the profile of tomorrow's engineer is determined by international competitiveness, the process of globalization and the needs of society.

The intensification of the internationalization process of TUM is an important objective, which aims to increase the quality of technical higher education and national scientific research in the field of engineering sciences, as well as the external visibility of the Technical University of Moldova. And the achievement of this objective presupposes the correlation of the activity at the level of all the departments involved.

The objectives of the proposed strategy are in line with the objectives the institutional strategic development plan of the Technical University of Moldova 2016-2020.



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#### Mission and vision of the Technical University of Moldova

The Technical University of Moldova assumes the general mission of advanced scientific research and education, generating and transferring knowledge to society through:

- Scientific research, development, innovation and technological transfer, through individual and collective creation in the field of engineering sciences, as well as the capitalization and dissemination of their results;
- Initial and continuous training, at university level, for the purpose of personal development, professional integration of the individual and meeting the skills needs of the socio-economic environment.

Also, the University assumes its own mission as a catalyst for the development of Moldovan society by creating an innovative and participatory environment for scientific research, learning and creation, transferring skills and knowledge to the community through the educational, research and consulting services it offers, economic and socio-cultural partners.

The vision of the Technical University of Moldova is to be a national leader in technical higher education, fundamental and applied scientific research and to be among the best universities not only nationally but also regionally.

#### VISION AND STRATEGIC MISSION FOR INTERNATIONALIZATION

Strategic vision of the internationalization of the Technical University of Moldova: International cooperation must become a catalyst for international review and planning activities, to contribute to the institutional construction by strengthening the human, technical and infrastructure components.

It is worth noting the obvious trend of massive increase in global mobility of both potential students and teachers, a trend that for TUM is both a threat (to a greater extent) and an opportunity (to a lesser extent). Thanks to the liberalization of the visa regime and the intensification of the educational offer by the universities from the EU and Romania, in particular, thousands of high school graduates and students choose the universities from the West.

Also, foreign universities are intensifying their efforts to recruit the best teachers in Romania, and the deficit created will probably be able to be covered by recruiting teaching and scientific staff from the Republic of Moldova.



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At the same time, the academic mobility carried out within the European mobility programs represents an excellent opportunity for both students and teachers in order to improve, exchange experience and expand collaborations with colleagues from European countries.

The internationalization of the Technical University of Moldova involves a number of challenges but also risks. Among the challenges can be highlighted, first of all, the ability to mobilize the appropriate human and financial resources to build sustainable policies, leading to an increase in the level of internationalization of the university's activities.

The mission of internationalization of the Technical University of Moldova is clear: internationalization must become an integral part of the activities of the academic community, and the university must create optimal conditions to allow all members of the university to have opportunities for international collaboration.

#### **Current state of internationalization: SWOT analysis**

#### **Strong points**

- promoting internationalization in the University Charter, the strategic plan and the annual operational plans of the TUM;
- recognition of the diploma of graduation of TUM in foreign countries and in international companies;
- carrying out various cooperation and partnership activities based on international projects with foreign universities;
- increasing the interest of students and academic staff for external mobility;
- increasing the number of external mobilities for students and academic staff;
- carrying out study programs in languages of international circulation: cycle I license the study program Software Engineering (English language) and the study programs Information Technologies and Food Technology (French language);
- increasing the number of students with very good knowledge of English and French;
- offering double degree studies with partner universities in Romania;
- creating a team responsible for internationalization at faculty level;
- conducting optional courses in English for teachers;
- taking optional German language courses for students.



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#### Weaknesses

- lack of experience / tradition for application to international research and education projects;
- Insufficient financial and human resources in promoting international relations and recruiting foreign students;
- insufficient international prestige in the field of research and recognized results;
- the absence of the university in the recognized international rankings of universities;
- poor knowledge of international languages;
- insufficient number of programs with teaching in international languages;
- less developed study and accommodation infrastructure compared to the conditions in foreign universities;
- the passivity of a large number of students and teachers on internationalization.

#### **Opportunities**

- providing studies for students in all cycles through a double degree in partnership with EU universities;
- increasing the interest in engineering studies internationally;
- placing international companies within the Tekwill Center of Excellence;
- providing assistance, financial and technical support from international donors (USAID, AUF, AIDS, etc.);
- increasing the topicality of national policies to promote innovation in the creation and provision of international education;
- encouraging academic staff through institutional policies in order to incorporate the international dimension into curricula and course content.

#### **Threats**

- lack of motivation of students and academic staff to use / study in foreign languages;
- procedures, often bureaucratic, regarding the residence permit and visas for foreign students;
- low internationalization of public services;
- low spirit on internationalization and weak attitude towards intercultural experiences.



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#### PRIORITIES, STRATEGIC OBJECTIVES AND IMPLEMENTING MEASURES

In order to successfully complete the internationalization mission, the following strategic priorities are identified:

- Priority 1. Internationalization of academic programs and curriculum;
- Priority 2. Internationalization of scientific research and high quality development cooperation;
- Priority 3. Opening the Technical University of Moldova to the international environment;
- Priority 4. International mobility;
- Priority 5. International recruitment..

These strategic priorities are proposed in order to successfully achieve the major objectives of the Strategic Institutional Development Plan of the Technical University of Moldova 2016-2020, namely Intensifying the process of Internationalization of TUM.

#### **Priority 1.** Internationalization of academic programs and curriculum

Strategic objective: Improving curricular content and teaching skills for all areas of study, increasing the international compatibility of study programs and integrating international aspects and study periods into the study process.

No. action	Action	Responsible	Measurable indicator
1	2	3	4
Specific o	objective 1.1.		
Internatio	nal compatibility of study programs insofar as they a	re formally and structurally comparable	with similar HEI programs strategic for TUM
A 1.1.1	Evaluation of study programs to ensure the	Deans, heads of departments and heads of	
	international compatibility of programs and courses	IR at the faculties; Academic	
	offered.	Management and Quality Assurance	At least 4 compatible programs per faculty.
		Directorate (AMQAD)	
		Vice-rector for academic affairs.	



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1	2	3	4			
	Specific objective 1.2. Improving the curricular content and the international dimension of the study programs and of each course					
A 1.2.1	Redesigning bachelor's and master's degree programs based on international cooperation opportunities (student mobility, double degrees, etc.).	Deans, heads of departments and heads of IR at the faculties; AMQAD; Vice-rector for academic affairs.	At least 2 programs redesigned per faculty annually.			
A 1.2.2	Increasing the offer of interdisciplinary courses at bachelor and master level.		•			
A 1.2.3	Attracting international academic staff for teaching.		At least annually 2 internationally recognized teachers for teaching courses.			
Improving	Specific objective 1.3.  mproving the professional teaching skills of academics. Improving the teaching skills of all academic staff in English, French or German					
A 1.3.1	Strengthening the capacities of the Foreign Languages Department through TEFL / TESOL certification.		At least 2 academic staff (2019-2020).			
A 1.3.2	Increasing the offer of language study courses and practical training for academic staff on knowledge of English, French or German.		30 lecturers will complete English, French or German courses annually.			
A 1.3.3	Certification of the level of knowledge of English, French or German languages of academic staff by issuing a supporting documents.		Compulsory for all teachers who know one of the foreign languages (English, French, German or another international language (2019-2020).			
A 1.3.4	Promotion of certified academic staff in knowledge of English, French or German languages.	Vice-rector for academic affairs; Vice- Rector for International Relations.	At least 2 professors per year promoted to international mobility.			



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1	2	3	4			
	objective 1.4. ng the number of programs taught in English, Frencl	h and German.				
A 1.4.1	Preparation of study programs to be taught in English, French or German by all academic staff.	Deans, heads of departments and heads of IR at the faculties; AMQAD; Vice-rector for academic affairs; Vice-Rector for International Relations.	At least 2 study programs per faculty taught in English, French or German languages (2020-2023).			
	objective 1.5. cation of double degree programs in partnership with	strategic HEIs for TUM.				
A 1.5.1	Initiation of double degree programs for undergraduate, master and doctoral programs.	Deans, heads of departments and heads of IR at the faculties; Vice-rector for	=			
A 1.5.2	Increasing the number of students studying based on double diplomas in all study programs.	academic affairs; Vice-Rector for	Increasing the number of students on double degree study programs by 10% at least.			
	Specific objective 1.6. Improving students' language skills in English, French or German.					
A 1.6.1.	Increasing the offer of language training through optional courses and / or extracurricular modules on English, French or German.	Department of Foreign Languages	At least 10 students annually will receive an international certificate of English, French or German language knowledge.			



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PRIORITY 2. Internationalization of scientific research and high quality development cooperation

Strategic objective: The Technical University of Moldova establishes competitive research at the international level as a major objective in achieving the university mission, but also in promoting international visibility.

No. action	Action	Responsible	Measurable indicator			
1	2	3	4			
	Specific objective 2.1. Development of capacity building and international knowledge and technology transfer.					
A 2.1.1	Development of scientific research-focused partnerships with universities, institutions, the Moldovan diaspora and foreign companies in Europe and around the world.		Increase the number of international partnerships by at least 5% per year.			
A 2.1.2		Vice-rector for research and doctorate, Scientific Investigations Department, Research centers / laboratories.	ananimad			
A 2.1.3	Participation in prestigious international scientific events.		At least 10 prestigious international annual scientific events attended			
A 2.1.4	Attract internationally recognized experts to participate in international scientific events.		At least 5 internationally recognized experts to participate in the annual TUM scientific events.			



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1	2	3	4
Specific o	bjective 2.2.		
More acti	ve participation of researchers and research centers in th	ne international integration of scientific	research, innovation, start-up and
recognitio	on of performance in innovation		
A 2.2.1	Elaboration and submission to international call of proposals international research projects in international research consortia (H2020, COST, bilateral, cross-border projects Moldova - Romania, etc.).		Annual submission by each research center of at least 2 international projects.
A 2.2.2	Implementation of international research projects with foreign partners, in international research consortia (H2020, bilateral projects, cross-border Moldova - Romania, etc.).	Scientific Investigations Department, Research centers / laboratories.	100% of the applied international projects finished with concrete implementations in the business environment, production, society, etc.
A 2.2.3	Adherence to international scientific consortia, projects, platforms and research grants (COST, ERASMUS + etc.).		Academic mobility of at least 5 PhD students annually in prestigious research centers abroad.
Specific	objective 2.3. Creating high performance in scientific res	earch	
A 2.3.1	Encourage and promote the publication of scientific articles in impact factor journals or indexed in relevant international databases, monographs or book chapters published in international publishers.	Vice-rector for research and doctorate, Scientific Investigations Department, Research Centers / Laboratories, Head of the Doctoral Schools Department.	Increasing the number of articles published in prestigious journals with international visibility by at least 5% annually.
A 2.3.2	Stimulating researchers for publication in journals with significant impact factor and participation in conferences with ISI and SCOPUS visibility.		



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**PRIORITY 3.** Opening the Technical University of Moldova to the international environment;

Strategic objective: Update and maintain current international agreements and sign new agreements with universities in EU and partner countries.

No. actions	Actions 2	Responsible 3	Measurable indicator
Strength Scholar (	objective 3.1. ening the international visibility of TUM. Focusing efforts Citations (teaching in foreign languages, student mobility, onally funded projects, etc.)	on internationalization indicators in U	Multiranking, Top Universities by Google
A 3.1.1	Identifying and promoting areas of excellence of TUM internationally.	Vice-rector for computerization, relationship with the socio-economic environment, image and communication; Vice-rector for academic affairs; Vice-Rector for Research and Doctorate; Vice-Rector for International Relations.	
A 3.1.2	Annual analysis of indicators on pre-established criteria (with reference to EU-Multiranking requirements, Top Universities by Google Scholar Citations, Research gate, etc.).	relationship with the socio-economic	
Promotin	objective 3.2.  Ig and strengthening cooperation with international organ  (A, LED, etc.).	nizations that finance development progra	ams in the Republic of Moldova (USAID,
A 3.2.1	Initiation or revitalization of cooperation agreements with international organizations operating in the Republic of Moldova.	Vice-Rector for International Relations, International Relations Service.	At least 2 revitalized contracts or a new one signed annually.



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1	2	3	4
A 3.2.2	Periodic organization of international events with the participation of international partners in international programs / projects / organizations.		
	objective 3.3. on, initiation and implementation of international projects		
A 3.3.1	Informing the university community about call of proposals, funding opportunities for HEIs, students and faculties.		2 events per year at each faculty in cooperation with the IR Service of TUM
A 3.3.2	Assistance for university teams in developing new international projects.	Vice-Rector for International Relations, International Relations Service, IR Managers.	At least 4 projects submitted in collaboration with HEIs in the EU. At least one project won in collaboration with EU partners.
A 3.3.3	Assistance for university teams in the implementation of international projects.		Permanent.



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### **PRIORITY 4.** International mobility

Strategic objective: Intensify the university's efforts to stimulate the participation of teachers and students in mobility and international cooperation programs.

No.			
action	Action	Responsible	Measurable indicator
1	2	3	4
Specific o	bjective 4.1.		
Increasing	g the level of participation in the Erasmus + $Action\ A1$ pro	ogram and other CEEPUS, AUF, etc. n	nobility programs.
A 4.1.1	Update the regulations for the development of Erasmus + mobility programs, both for students and staff.		Permanent.
A 4.1.2	Campaigns to promote mobility at faculty level with the involvement of Erasmus students, foreign students and to disseminate the experience obtained.		At least twice a year at the beginning of the launch of international competitions  Annual increase in the number of participants in mahility which targets 50%
A 4.1.3	Providing assistance and counseling for students and teachers regarding the possibility of participating in international mobility programs.	Vice-Rector for International Relations, International Relations Service, IR	participants in mobility, which targets 5% annually for students and 5% for academic staff and, at the same time, improving the quality of mobility.
A 4.1.4	Assessing the quality of student mobility based on appropriate assessment tools (questionnaires, interview, etc.).	Managers.	Completing a questionnaire for each mobility contact made.
A 4.1.5	Improving the flexibility of procedures for the recognition of academic results and skills acquired in mobility.		Permanent.



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#### **PRIORITY 5.** International recruitment

Strategic objective: Intensify the process of attracting foreign students to bachelor's, master's and doctoral studies with teaching in modern languages or in Romanian with a preparatory year

No.			
action	Action	Responsible	Measurable indicator
1	2	3	4
	objective 5.1. ng the marketing policy in promoting TUM in order to attr	act international students.	
A 5.1.1	Preparation of marketing materials: international student guide, leaflets, posters, etc.	Vice-Rector for International Relations, International Relations Service, IR Managers.	Permanent.
	objective 5.2. ag the dissemination of information to meet the guidance i	needs of future international students.	
A 5.2.1	Continuous updating of TUM web pages with placement of all necessary information for potential international students, including permanent updating of information / legislative changes.	Vice-Rector for International Relations, International Relations Service, Faculty IR managers.	Permanent.
	objective 5.3. ficient use of TUM's promotional tools.		
A 5.3.1	Identifying the main international fairs for student's recruitment in the geographical areas of interest in which the university should participate and encouraging faculties to participate in fairs in specific areas of interest.	Vice-Rector for International Relations, International Relations Service, IR officials at the faculties.	$\mathcal{E}$



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1	2	3	4
Specific objective 5.4.  Improving the process of accommodating international students, by involving them in the process of adapting to university life.			
A 5.4.1	Designing a socio-cultural integration package for foreign students.	Vice-Rector for International Relations, International Relations Service, IR Managers.	Development of an initial package with its annual update.
A 5.4.2	Organizing counseling and guidance activities to adapt international students to a different cultural environment.	Vice-Rector for International Relations, International Relations Service, IR Managers.	At least 2 activities per year.

#### PROMOTION, IMPLEMENTATION AND MONITORING OF THE TUM INTERNATIONALIZATION STRATEGY

Continuous updating of TUM's web pages with placement of all necessary information for potential international students, including permanent updating of information / legislative changes.

Continuous updating and presentation of information on TUM faculties on the web page in in English.

The final version of the strategy must be approved by the Senate of TUM. The strategy will be accompanied by an annual operational plan that will concretize the actions of the university strategy. The collection of information on the progress made in the internationalization process will be done by:

- International Relations Service;
- Academic Management and Quality Assurance Department with the respective sections;
- Scientific Investigations Directorate.



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The team composed of representatives of the faculties responsible for internationalization will design monitoring sheets of indicators in all areas of strategy's action, the information will be collected semiannually and annually at the level of faculties, departments through persons appointed responsible for internationalization. Those responsible for internationalization will prepare reports that will be presented to the International Relations Service at the end of each semester. The report will include information on the degree of fulfillment of the indicators, but also possible proposals for reviewing the elements of the strategy depending on their impact (deadlines, resources, indicators, etc.). Any decisions to change the strategy will be taken by the Board of Directors of TUM.

An annual report will be presented to the Senate of TUM.

#### **FINAL PROVISIONS**

Internationalization is a mandatory part of TUM's strategic development plan, which assists the realization of the university mission in a developing world society and the consolidation of TUM as a higher education and research institution.

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