



STU MTF LONG-TERM OBJECTIVE FOR 2012 - 2017

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Panels: Approved by Faculty Mngmt on 11 Apr 2012,
Approved by MTF Dean's Commission on 17
Apr 2012,
Amended in public discussion on MTF
webpage from 23 Apr 2012 to 8 May 2012,
Negotiated by MTF Sc. Board on 23 May 2012,
Approved by MTF Ac. Senate on 25 May 2012.

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Introduction

The submitted material *STU Faculty of Materials Science and Technology in Trnava (MTF) Long-term Objective* (hereinafter referred to only as Long-term Objective) is a strategic document for the following six year period 2012-2017. The Long-term Objective comes out of the following strategic documents:

- MTF Long-term Objective for 2007 – 2010,
- STU Long-term objective – STU strategic development plan for 2012 – 2017, and
- Vision and Mission of STU MTF defined in period 2006 – 2011.

STU Identity

Slovak University of Technology in Bratislava builds on the legacy of renowned and progressive Mining Academy in Banská Štiavnica, established in 1762 and operated in the area of the current Slovak Republic for 150 years. The Slovak University of Technology in Bratislava, partially known to public as the Slovak Technical University (SVŠT) in Bratislava, was officially established by law in 1937. In its 75 year existence it has educated almost 120 000 engineers and become the flagship of the Slovak higher engineering education. It has significantly contributed to the economic and social development of Slovakia, development of world research as well as to the development of industrial companies and institutions.

STU MTF Identity

Faculty of Materials Science and Technology in Trnava is fully identified as an equal part of the Slovak University of Technology in Bratislava.

The Faculty of Materials Science and Technology in Trnava was established by the Government Decree No. 94 of 10 Oct 1985, with effect from 1 Jan 1986 under the original name STU Faculty of Machine Technology in Trnava. Despite this late date, the Faculty history is much older. It is closely related to technology branches of machine industry based on the previous Department of Mechanical and Electrical Engineering (OSEI) in 1939. In 1950 OSEI Department was renamed as the Faculty of Mechanical and Electrical Engineering, which was divided into two independent faculties – Faculty of Mechanical Engineering and Faculty of Electrical Engineering.

The name of Prof. Jozef Čabelka (1910 - 1987), top expert in the field of welding technologies, founder of the Welding Research Institute in Bratislava (1949), and doyen of mechanical technologies will be forever joined with the beginnings of technological disciplines at SVŠT. The development of these technologies was guaranteed by Professors J. Nebeský and J. Ondra.

In late 70s and early 80s of the previous century the study majors divided into construction and other study programmes. Machine Technology, Material Engineering, Economics and management of Production Systems, Automation Systems of Production Control Systems, Production Systems with Industrial Robots and Manipulators belonged to the group of other study programmes and became the basis for the establishment of the Faculty of Machine Technology in Trnava in 1986.

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In 1991 the Faculty was renamed as the Slovak University of Technology, Faculty of Materials Science and Technology in Trnava. The Faculty Deans were (introduced in chronological order): Prof. Ing. Jozef Adamka, CSc., Prof. Ing. Karol Polák, DrSc., Prof. Ing. Milan Turňa, PhD. IWE, Prof. Ing. Jozef Sablik, CSc. and Prof. Dr. Ing. Oliver Moravčík.

The Faculty focused on the education of a university graduate for wide fields of industrial production. Since its beginnings it has had 18,074 graduates in all three stages of study (in bachelor degree study 6,124, in master (engineering) degree study 11,576, and in doctoral degree study 374).

The Faculty became an awarded finalist of the Slovak Republic National Quality Award 2008 in the category „ other public sector organizations“. In September 2009 the Faculty was accredited in the process of Slovak academic institutions complex accreditation as a university faculty of university type academic institution. Regarding the achievements, in higher institutions ranking in 2011 the Faculty advanced by ten places, which was the best breakthrough of all higher institutions evaluated.

STU Vision

Slovak University of Technology in Bratislava intends to be internationally renowned research oriented university of technology. It intends to provide quality, internationally comparable education for large groups of young generation in perspective fields base on own investigation, critical thinking, entrepreneurship and creativity with focus on practical implementation and respect to humane aspect of education and progress in technology. The university intends to contribute to economic and social development of the region.

STU MTF Vision

The STU Faculty of Materials Science and Technology in Trnava, in compliance with the STU vision, intends to be *a research oriented and internationally renowned faculty* within the similar faculties framework, i.e. faculties developing modern trends in research and industrial production with focus on progressive materials, sophisticated production technologies and industrial management, automation and IT implementation of production and technological processes such as quality, safety, environmental and managerial aspects of industrial production.

STU Mission

STU as a research oriented university has a clear mission – by research obtain, by engineering and other creative activities apply and disseminate new knowledge, educate young generation in terms of humanism and humanity principles.

STU MTF Mission

In compliance with the defined mission of the Slovak University of Technology, the STU Faculty of Materials Science and Technology as a university faculty intends to contribute actively to meet the requirements of the mission – **with the priority laid on materials science and production technologies** – in accredited fields of education, research and development within the stipulated competences:

- offer and provide/execute university system of education in all stages in accredited study programmes,

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- disseminate, improve and develop knowledge by research and development tools,
- ensure transfer of research results into educational process,
- ensure transfer of research results into entrepreneurial practice,
- protect its research results,
- integrate into the system of university life-long learning,
- participate in sustainable development of society with all its activities, mainly by the development of student harmonic personality in the context of humanism and democracy ideals.

Values:

STU MTF acknowledges and promotes the following values in all its activities:

academic freedom, equal opportunities, technical progress, honesty, humanity, ethics, corporate identity, sustainable development.

General and strategic goals

- 1 Concentrate the Faculty activities in Bottova CAMPUS.
- 2 Improve the quality and efficiency of the education process in all stages.
- 3 Publish the research and creativity results internationally, particularly in renowned international scientific journals.
- 4 Increase STU MTF status in the projects of international cooperation.
- 5 Build research infrastructure (equipment) including the qualified service.
- 6 Intensify the cooperation with practice, from private industrial companies to public institutions and authorities.
- 7 Ensure continuous performance of teachers and guarantors in the accredited study programmes in order to avoid the generation gap particularly in profile programmes.
- 8 Increase the feeling of ownership and loyalty and inform the Faculty graduates on the Faculty activities.
- 9 Focus the research results and free investigation also on the outcomes, e.g. patents.
- 10 Improve the orientation on other than grant sources from state budget, particularly on the sources from abroad, from grant agencies for projects, from entrepreneurial activity.
- 11 Improve and ensure information and communication technologies on the top European and world levels.

Tools

The Faculty utilizes many tools related to its operation. This part introduces selected tools to meet the aforementioned general and strategic goals.

- 1 Prepare of development projects and apply for finances from EU sources.
- 2 Involve students in creative engineering and research activities.
- 3 Execute revision of all study programmes for the following complex accreditation with focus on optimization and efficiency increase.
- 4 Prepare and carry out the project of gradual implementation of teaching in the English language.
- 5 Support publications in renowned high impact international scientific journals registered in WOK or Scopus.
- 6 Support participation of the Faculty workplaces in the international research cooperation, and international projects within EU Framework Programme in particular.
- 7 Improve tools for the origin of natural mechanisms of graduates association STU MTF ALUMNI - Bank of Quality, who will be informed about the Faculty activities on regular basis.
- 8 Build institutional support with practice and knowledge transfer to practice.
- 9 Modify internal regulations and procedures influencing professional growth with focus on motivation increase.
- 10 Intensify the introduction of new and development supporting quality control systems.

11 Support acquisition of financial means from external sources, particularly from abroad.

12 Continuously modernize information and communication technologies.

Indicators

In general, the Faculty monitors the indicators of education and research quantity and quality in compliance with the criteria of the Ministry of Education for grants, criteria of rating agencies as well as accreditation criteria. This document introduces the following indicators.

- 1 Share of master (engineering) and doctoral study students in the total number of students.
- 2 Share of foreign students studying at STU MTF in the total number of students.
- 3 Share of bachelor study graduates in the number of students enrolled.
- 4 Share of number of introduced subjects delivered in the English language in the total number of subjects.
- 5 Share of research hours (capacity) in the total fund of research capacity.
- 6 Share of financial means for research acquired by the Faculty in competitions and other similar forms.
- 7 Number of research and other projects of international cooperation.
- 8 Volume of finances acquired for research projects from abroad.
- 9 Volume of financial means focused on equipment.
- 10 Share of teachers with PhD. or DrSc. degrees in the total number of teachers.
- 11 Number of students per teacher with and academic degree.
- 12 Number of researchers in the total number of teachers.
- 13 Number of graduates registered in ALUMNI Association in the total number of the Faculty graduates.
- 14 Volume of finances acquired from entrepreneurial activities.
- 15 Number of patents, number of licences provided, etc. and monographs in relevant international publishing houses, publications in CC Journals and quotations in WOK and Scopus databases.
- 16 Share of off-grant sources in the Faculty budget income.