CENTER FOR QUALITY ASSESSMENT IN HIGHER EDUCATION

OVERVIEW REPORT FOR MATERIALS TECHNOLOGY STUDY FIELD

2022 year of the evaluation

Prepared by the chairperson of the expert panel

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I. INTRODUCTION

The overview is based on the external quality evaluation of the *materials technology* study field in the following Lithuanian Higher Education Institutions (HEIs): *Kaunas University of Technology and Vilnius University*.

The external evaluation was organized by the Lithuanian Centre for Quality Assessment in Higher Education (SKVC).

Comprehensive external evaluation reports including strengths and weaknesses and concluding with recommendations were prepared separately for first and second-cycle field studies and included evaluation marks. This overview focuses on the main findings of the external evaluation of the *materials technology* field from a general point of view.

Based on the findings of the evaluation, an expert panel has come to a decision to give **positive** evaluation to the *Kaunas University of Technology* first cycle studies and *Vilnius University* first cycle and second cycle studies.

On the basis of an external evaluation report of the study field, SKVC takes a decision to accredit the study field and cycle either for 7 years or for 3 years. If the field evaluation is negative such a study field is not accredited.

II. STUDY FIELD OVERVIEW BY EVALUATION AREAS

3.1. Intended and achieved learning outcomes and curriculum

The experts got a very positive impression of the Materials Technology study field at Kaunas University of Technology and Vilnius University. The Materials Technology study field is interdisciplinary, giving the graduates additional knowledge and wider job opportunities. All described studies are focused on modern and innovative (both physical and chemical) materials technologies. The support of the laser technology and photonics industry for laser- and physics-related study programmes is significant. The material base for the realization of the study field is excellent. In general, the premises of the universities allow to attract more students, and the industry also needs more graduates. Universities are confronted with the problem of reducing the number of potential local students and trying to address it by making quick changes to study programmes and by attracting foreign students. Both universities provide study programmes in English. Although attracting foreign students is the right direction, it seems that universities would benefit from centralized support for attracting foreign students and ensuring “internationalization at home”.

3.2. Links between science (art) and studies

In general, both Universities are deeply involved in scientific activity. Research is seen as a very important part of the study process. The Materials Technology study field is strongly interdisciplinary and allows a sufficient and broad spectrum of science activities to be linked to

its study activities on all levels. There is a high number of successful and productive research groups, most of which are adequately carrying on high-level international cooperation with partners from Europe and the World. The research infrastructure is excellent.

3.3. Student admission and support

Both universities have very good student support. The students have different programmes of support, from different points, as academic, financial, social, and psychological ones. Important work has begun to attract international students and to offer studies in the Materials Technology field in English. Still, there is a lot of work to do to enhance the integration of foreign students into the internal life of the university, as well as in the labour market. Also, the mobility of the students still could be enhanced.

3.4. Teaching and learning, student performance and graduate employment

In both universities, studies are conducted at a very high level. Universities implement initiatives for the inclusion of vulnerable student groups. Graduates in the field of Materials Technology are in demand in the labour market. However, when meeting with industry representatives, the opinion was expressed that there are not enough specialists. Many students start working during their studies and face the problem of completing their studies. concern was voiced about the readiness of secondary school graduates to study in this STEM field.

3.5. Teaching staff

The teaching staff in the Materials Technology study field is very qualified and involved in high-level research. However, in both universities, there is limited integration of business or industry representatives in the study process.

3.6. Learning facilities and resources

The Materials Technology study field has state-of-the-art classrooms and laboratories that are freely accessible to students. Facilities are even larger than currently needed; thus, there is a high potential for a higher number of students. Both universities have very modern libraries.

3.7. Study quality management and public information

Both universities work seriously to create operational study quality management systems. Still, there is a potential for wider employers' involvement in the quality assurance of the studies.

III. EXAMPLES OF EXCELLENCE

Both universities have excellent impressive scientific infrastructure, as well as state-of-art libraries.

The Materials Technology study field is in great demand from the side of the industry, especially the laser and photonics-related industry.

The involvement of the academic staff in high-level research should also be praised.

IV. RECOMMENDATIONS

MAIN STRATEGIC RECOMMENDATIONS FOR THE IMPROVEMENT IN THE MATERIALS TECHNOLOGY STUDY FIELD

- **Strategic recommendations for Higher Education Institutions (at the institutional level):**

1. Pay serious attention to the arrangement, approval, and publication of internal quality documents on websites not only in the native language but also in English (taking into account internationalization strategies)

2. Use the full potential of a wide employer's involvement in the improvement of the study programmes, ensuring cooperation at all levels of the university administration.

- **Strategic recommendations for the Ministry of Education and Science and Sport (at the national level):** (all kinds of proposals)

1. Financial and other support for internationalization activities (attraction of international students, universities homepages and internal documents in English, or another important language, rising qualification of teachers working with international students, improvement of intercultural skills, etc.)
2. Programme for rising interest in technical study fields and rising qualification of graduates of secondary education level (stipends, budget places)
3. Financial support for "leveling" courses at the universities due to the insufficient readiness of secondary school graduates for technology-related studies