

Analyses of the State of Slovak Higher Education Focusing on the Professional Employability of Graduates

Executive Summary

Introduction

The presented analyses provides a comprehensive picture of higher education (HE) status quo in Slovakia, presenting issues, facts and data relevant for implementation of necessary changes fostering the role of professionally oriented study programs. Where relevant, the document uses also international benchmarking data to provide a better basis for evaluating introduced facts.

Structure of the document:

- 1. The first chapter deals with current, relevant characteristics of higher education in the Slovak Republic, which are related to reaching better compliance with the needs of the labour market.*
- 2. The second chapter focuses on a summary of employers' demands toward higher education as they are identifiable from existing sources.*
- 3. The third chapter consider possibilities and limitations of universities to comply with the expectations of employers, outlining their limited space for action and also the existing conditions and performance outputs, that determine their ability to respond to labour market requirements, including professionally oriented study programs.*
- 4. The concluding chapter provides a summary of key findings in the form of a map, where factors impacting potential necessary changes in higher education are described.*

Necessary changes in HE and employers' motivation to get involved

In the recent years (since 2016 at latest) several initiatives were started aimed at reform plans for higher education – these come not only from government side, but from different representations of

employers as well. At least two key factors can be identified as drivers that motivate employers' involvement in initiating change in higher education:

a) The fundamental shortage of qualified labour in sectors with high added value in the national economy, which is for Slovakia both highly industrial oriented and on the other hand it needs structural changes in the context of technological development (where the most advanced trends are Industry 4.0 and digitalization). The deficiency concerns both:

*- the total number of graduates in the necessary fields of education,
- as well as the quality of their qualifications (including practical skills) to meet the needs of employers on the labour market.*

b) The lack of willingness of other stakeholders to create and participate in fundamental changes (or implement them in a dynamic way with a clear strategy). This is about absence of

*- openness of the HE system for cooperation with external partners (both in the field of research, development and innovation, as well as in the field of learning outcomes);
- openness of political representations to conceptualize and in particular to promote and drive the necessary changes.*

Key issues to be overcome in Slovak higher education

Positive changes in the development of Slovak HE system have to cope with the following issues:

- The performance of Slovak HE is rated by international standards as low. This is indicated by relevant global rankings concerning individual universities, the HE system, as well as the contribution of the HE sector to the countries' competitiveness.*
- HE institutions function in a highly isolated manner, which is due to legislative norms defining their self-government mechanisms, the accreditation process, as well as to lack of intensive cooperation with external partners (business, regional entities etc.) and rather low involvement in international relationships (research, student and staff mobility included).*
- One of the factors with negative impact on performance and staffing is the general financial capacity of HE and the (in European or OECD comparisons) low remuneration level of teachers and researchers (including lack of differentiation which would reflect labour market pricing in high demand sectors). The structure of allocation of state subsidies, which make up the major source of HE financing is also criticised due to not supporting enough diversification, excellence and employability of graduates (a large proportion is bound to the number of students).*

- Slovakia is one of the heavily hit HE markets by „brain drain“. Around 15% of secondary level graduates are leaving the country for university studies abroad (mainly to the Czech Republic) each year. Only a minimum of these students is returning after university graduation.
- The total numbers of university students are comparable with international trends. At the same time analytical and prognostic work over the recent years is pointing to a growing disharmony in the structure of qualifications of HE graduates if compared to the development of labour market needs. This miss match concerns the level of qualifications (overqualification, too many graduates at second level - masters) and the field/major orientation of students as well. STEM related employment sectors are suffering most. Among other consequences this leads to a high proportion of HE graduates working at positions which would require only secondary education (about 35%) and to a high proportion of those, who are working in a different field compared to the major in which they graduated (more than 55%).

The role of professionally oriented study programs and factors impacting their successful implementation

Much of the debate about feasibility of professionally oriented study programs takes place in an academic environment focusing at "traditional" values and principles, stressing the research role of universities and the highly general freedoms of choice for institutions and individuals. At the same time there emerges a lot of polemics about the graduate employability tracking and prognostics, as well as about competencies and study programs relevant for future jobs. A part of these discussions is an often stated "second league" downgrading of HE programs claiming to focus at the specific employability of graduates in specific types of positions. However, there is also a consensus within the representations of industry as well as within a part of the technically oriented HE institutions (and recently also within some political and executive bodies) that the professionally-oriented sector of HE should play a significant role in the eventual HE diversification process.

The legislation in Slovakia has introduced specific criteria of accrediting professionally oriented bachelor degree programs. These include a compulsory involvement of industry partners and a high proportion of practical schooling in course of the study. In the present situation, implementation became possible but is facing a number of impact factors, which are in support but also can become a threat to a successful development of this new HE sector. We have summarized these impact factors as follows:

SUMMARY OF IMPACT FACTORS - SOVAKIA 2018 *

| BUSINESS COMMUNITY | HE INSTITUTIONS | ENVIRONMENT |
|--|---|---|
| The labor market indicates the need for professionally oriented bachelors (especially industrial associations are active, on the other hand e.g. IT associations are more ambiguous in supporting these programs). | The university system needs a reform that will produce more bachelors for the labor market | The space for professional bachelor's programs is created in legislation. |
| High demand in the professional sector on STEM graduates - technical and engineering majors, in part natural sciences and IT graduate profiles. | Professional higher education and a bachelor's degree qualification does not have a tradition in Slovakia, and as a segment does not exist - international comparison show, that it should be created. | The accreditation of new bachelor's programs has no tradition and precedent. |
| The business community is ready to participate in the creation and implementation of study programs. | There is no relevant staffing for the new programs at universities (with capacity to introduce new content and ways of taching). | Political representation, nor executives show actively support for this change. |
| The business community does not communicate unequivocally willingness to participate in financing programs and related changes. | Along with implementation of their Bachelor's programs the HE institutions do not consider fundamental changes in their missions and profiling (as a consequence of overall set up in state funding), so these are perceived only as complementary considerations and attempts. | There is no communication campaign to promote this change. |
| Across the business community, it is challenging to reach agreements, consensus and collaboration. | The implementation of professional bachelor's programs is not accompanied by the redirection of the focus of respective HE institutions toward applied research and innovation. | Public opinion is still set to prefer the so called "full higher education completion" (which means the gain a Masters degree). |
| The partnership of universities and employers in order to establish professional bachelor programs is not negotiated yet (and some degree of distrust and uncertainty of the partners is present). | | The cohort of HE study candidates lacking part of the best talent (aiming to study abroad) is actually suitable for offering professionally oriented programs - with an impact on better career prospects. |
| There is no room being opened for external partners (including employers) to participate in university managemnt and staffing. | | The image of universities in the public and among the candidates for study is impaired, there is a widespread view of poor quality and mistrust toward HE instututions' performance - it may affect the portential acceptance of innovations in programs (their credibility). |
| Financial expectations from EU structural funds become inhibitors of initiatives (many are just waiting for the opportunity to source these and do not look for other ways to fund activities). | | The developing structure of position and qualification on the labour market - especially with regard to the necessary competencies - creates space for professional bachelors. |
| The business community does not understand the internal processes in universities. | Universities do not understand the functioning of the business sectors. | |
| | New programs need new competency profiles of graduates (responding to labor market forecasts) - tese are not clear for now. | |
| | The attitudes of the academic community often devaluate the capacity of the external environment to participate in the formation of curricula and the realization of teaching or research. | |
| | Higher education institutions are under-funded and have no resources to bridge changes. | |

**We have used green colour in the respective fields to indicate supporting, positive factors and have used red colour in fields where we indicate threat, risk, negative impact.*