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Strengthening Professional Higher Education and VET in Central and South Eastern Europe (PROCSEE)

NATIONAL PRIORITY STATEMENT

regarding the

Hungarian Professional Higher Education (PHE)

1. **„Harmony between the Professional Higher Education and the Regional Development Strategies”** - prepared by Prof. Dr. László Dinya

The thematic field is in **"developing"** phase recently having significant internal differences.

Challenges:

Hungary is facing the serious multiple challenges of the so called “innovation economy” (the 4-th industrial revolution) and its regions are affected by these challenges in a different way depending on their recent positions. There is an ongoing demand for local (regional) innovative answers to these challenges based on local (regional) knowledge centres, because regions have to find their relevant “good practices” instead of the universal (and locally not relevant) “best practice”. It means a new mission for HEI-s in their regions and they have to rethink their former portfolio of knowledge services, regional networking practice, participating in building up regional “triple – quadruple - quintuple helix” type collaboration in the interest of developing the regional competitiveness.

1. Establishment of institutional and operational regional relationships with employers, i.e. the business sector (large, medium and small companies), civil sector (NGO-s) and the public sector. (“developing” stage)

In this context, the importance of agglomeration economies position and the significance of location-specific factors for competitive advantage are being stressed. The ability to produce economically useful knowledge locally becomes an important condition for regional growth and HEIs become not only important sources of knowledge but also key regional actors. However, commercialization of knowledge cannot be carried out independently by HEIs. The HEI has to act as a knowledge company interacting with other institutional spheres of the different “helix models” (academic – business – public – NGO – natural environmental stake-holders). HEIs may contribute to regional development in

a number of ways, ranging from creation of knowledge and human capital, transfer of existing know-how and technological innovation, to active participation in regional leadership and investment in knowledge infrastructures. The role and level of engagement by a HEI in its region's development will depend both on the type and size of the HEI and the type and size of the region.

2. Coordinated cooperation between employers and HEIs in cities, where more HEIs are present and the demand and supply of knowledge services is diverse. ("developing" stage)

There are not just small or medium sized cities in the regions having a specialised HEI, but also larger city in the centre of each region with some HEI-s and a full range of knowledge service supply. It means a special task for them how to collaborate in the most effective way and how to harmonize their strategies and tactics to achieve the highest synergy in serving the regional development. Basically they could be responsible for establishing and ruling a complex knowledge and innovation network covering the whole region. It is a real management, communication and organisational challenge.

3. Meaningful participation of HEIs as knowledge-centres in elaborating and implementing different types of development strategies (sectoral, innovation) at various (national, regional, county, local) levels based on linking them together with the purpose of realizing synergy. ("early" stage)

The first step in development of a region to build up a living and intensive regional social communication about the shared future vision and the next step is to discuss and determine the strategic framework based on the accepted vision. The third step is to elaborate different sectoral (f.e. agrobusiness, industry, public service, etc.) strategies and the functional (f.e. innovation, financial, energy, etc.) strategies – all of them fit into the strategic framework (general strategic goals). The HEIs must take over a central role in this process because of their professional background and experiences – in closed cooperation with every important stake-holders. There is also a similar task in harmonizing (consulting, subsidizing) among different (local – regional – national – European) levels of strategic activities and implementation. There is a need to elaborate a totally new methodology and practice in this field.

4. Involvement of HEIs in socialization of regional development strategies and social communication, and in the elaboration and implementation of projects financed by tendering sources. ("developing" stage)

Compared to traditional academic education, the "professional" higher education (PHE) activities is still in significant flux and has not achieved the same level of integration into the society and economy. The consequences hinder integration into the regions in various ways. First, the lack of widely shared definition for PHE means that these activities cannot be fully understood. Thus, policy instruments such as the open method of coordination are largely ineffective due to an inability to comparatively measure the impact of policy

interventions. Second, the recognition of equivalent qualifications (as defined by mapping to the European Qualification Framework) by employers is hampered, especially in a cross-border context, if the qualifications are issued by institutions that do not necessarily have an obvious local equivalent. Third, but not less important, peer learning and good-practice sharing are more sporadic and cumbersome. A very intensive and multilateral social communication among stake-holders is necessary to strengthen the position and the best way for starting is the regional strategic development process.

5. Harmony of dual education - regional demands - regional opportunities – regional development strategies ("early" stage)

The term, function and benefits of dual education isn't clear for the stake-holders (business actors – public institutions – society – even HEIs) yet. One of the reasons is the different time-horizon of actors: the demand of employers is urgent (short-term) but the professional education is a long-term process. Another reason is the different idea of labour market: employers are thinking in a narrow, local (regional) market, but the workforce is moving in the frame of the European (or global) labour market. There is a task to establish a long-term, extrovert and harmonized view of above mentioned stake-holders about the relevant regional opportunities and limits. The best way to solve this task is also to fit it into the regional development strategy.

6. Involvement of business, civil society and public actors in the elaboration of institutional development strategies of HEIs and thus strengthening their commitment towards the development of higher education ("early" stage)

The regional development strategy is a very important framework to harmonize the long-term interest of the stake-holders but the institutional development plans (IDPs) of HEIs are similarly meaningful elements. The IDPs are elaborated mostly in an "introvert" way recently without involving outside partners and interest groups. Thus, their interests, needs could come into the IDPs just in an indirect form and very accidental way. It is necessary to build up a flexible network of information flow between the HEIs and the outside environment to get the relevant picture about the expectations of employers and business actors.

7. Greater social responsibility of HEIs is necessary in order to achieve the regional sustainability paradigm shift. ("developing" stage)

The sustainability paradigm shift (that is going into the direction of establishing the sustainable economy and society) is a tremendous challenge for everybody and at every level of the community. It doesn't depend on the profile of the HEIs or business actors, institutions, organisations – it is a common task. The HEIs have to take over the task of catalysing this process in the region and at local levels. It could be the organic part of their educational, R+D+I activities and also the consulting and dissemination. It is the social responsibility (CSR) of HEIs.

8. Participation of HEIs is required in establishing and operating regional knowledge and innovation networks (clusters, strategic alliances) to meet the challenges of the innovation economy. ("developing" stage)

Regional development studies (in Europe and globally too) show that the competitiveness of a region is based on three conditions: (1) the number of SMEs (small- and medium-sized enterprises), (2) how innovative are they, (3) how intensive is their cooperation (networking). We (Hungary) are enough good at the first condition (relatively high number of SMEs), but very week at the last ones. That's why the HEIs in a region could have an important role to raise the level of innovativeness of SMEs (by a wide range of different R+D+I projects and professional education programs) and to enlarge the cooperating interrelationships (by establishing and operating regional networks focusing on innovation and knowledge dissemination). Typical forms of these networks are the clusters (it is an EU-priority too), the strategic alliances and associations.

2. **Promotion of PHE in Responding to Skill Shortages** - prepared by dr. Anna Medve, PhD

Specific characteristics and criterions of the „Promotion of PHE in Responding to Skill Shortages" area focuses on regional integration by policies and strategies defined in collaboration with the world of work in regional partnerships enhancing job-related skills and competences integrating theory and practice as the basis for complex problem-solving in real work situations with a view to raising the employability of students and career progress.

The area is in „early-stage".

The state of area at policy level: eleven policies - early-stage; 5 policies – developing; 2 policies - mature; 0 policy - advanced; 1 policy - now.

Policies:

Policies are grouped by sub-areas of area 2:

Sub-area A. - ensure equivalence of „professional" and „academic" tracks of education in terms of the Lisbon Recognition.

The main obstacles are in harmonisation and modernisation of education programmes.

1. the harmonisation of „academic" and „professional" orientation of programmes to highlight their necessity rate at professional area and level by systematically renewed curricula, constantly modernized delivery, and active involvement of business in particular to respond to the skill shortages and increase employability of graduates /*early-stage*/
2. mobility/transferability assurance at the input in the training process by the assessment and acceptance of the acquired skills and knowledge, in the sense of Lisbon Recognition Convention between EQF levels, even between modes of educations with bridging courses /*developing*/

Sub-area B. - improve the evidence-base of PHE's contribution to society and to individuals (through such tools as tracer studies, etc.)

The main obstacles are in mapping education development strategies to rise the employability of students.

3. to shape appropriating the students' autonomy and responsibility in order to rise the applicability of acquired skills and knowledge /*mature*/
4. the trend anticipations should be not only to professions and their quantity, but the overall need for "transferable" competences according to "soft skills" and "hard skills" distribution of requirements /*early-stage*/
5. improving the liability potential of higher education graduates /*developing*/
6. the effect of society and economic contexts to „skills" promotes skills as entrepreneurial, entreprise research planning, and corporate culture skills (see also Irinyi-terv - http://www.kormany.hu/download/d/c1/b0000/Irinyi-terv.pdf) /*developing*/

7. ensure quality of professional connection with the world of work and embed the world of work partners within the governance scheme of the university /*early stage*/

Sub-area C. - mapping, predictions and assessment of labour market – PHE interaction, outcomes and impact

The main obstacles are in approximate the development of strategies and its realization close to the industrial needs.

8. development of new professions along the required/propagate automation and transformation of the structure of economic activities with efficient involvement of employers in curriculum development and assessment, and organization of practice-learning phases improving quality and student choice /*early-stage*/
9. aptitude skills which not should to learn (for example at health professionals) to be measured preliminary as it is practiced in educator training /*mature*/

10. improving the PHE adaptivity by improving the consistency of employment needs, scientific trends, and training qualities (i.e. the content, composition, and level of the training) */early-stage/*
11. development of specializations vs. general skills: to follow the different needs of employers (corporations need specializations; small and medium-sized companies need more competences) and to take into account the trends of automation; the latter closes special professions and opens new special ones (at long term increaes the significance of strong general basic competences) */developing/*
12. the review of regulations: for the launch of new training programme or to incude experts in PHE (instructors/experts from corporations involved as courses responsabile) */early-stage/*
13. ensure that are reflected the economic needs in the determination of faculties and the training programmes of higher education */early stage/*

Sub-area D. - improve the status of PHE within the owerall academic community

The main obstacles are in regulations and in lecturers professionalization.

14. adaptation to demographic processes and creation of appropriate structures and provisions to reach out to disadvantaged learners */early-stage/*
15. institutionalized negotiation between the levels of skills in the training (EQF 6 and 7 in HU) and world of work in order to translate into HR language */now/*
16. improving the respect for professional skills in society and in the academic sphere, both in order to propagate applied and practice-guided research */early-stage/*
17. unblock the barriers on regulations for training and teaching (for example accreditation expectations) and enhance the control on industry involvement to improve the flexibility of PHE: for professional continuing education and specialization within the institutional responsibility and following regional interests, fixing the ratio of theory to practice by law (for example the minimum lenght of internship) */early stage/*
18. ensure training for the academic staff to being well trained and qualified professional teachers and not just qualified in a particular academic subject, and developping the continuous professional carrier as a profesional teacher */early stage/*
19. research is closely connected to education via its contribution to education activities, lecturer professionalization and curriculum innovation */developing/*

<u>Synergies beetwen area 2 and other areas:</u> *from areas 2 to areas 1 by policies 1, 7, 10; to areas 4 by policies 1, 6, 7, 9, 10, 11.*

***Synergies between area2 and societal initiatives**:*

a) In Hungary, the PHE programmes are found in mixed systems after the Bologna program implementation. The historically called „University" and „College" institutions now are Universities with bachelor, master and doctoral degree of the studies.

b) The PHE policies take synergies with other national level programs as: Industry 4.0 program, Hungarian National Higher Education Strategy, and The national smart specialization strategy (National S3 http://nkfih.gov.hu/szakpolitika-strategia/national-smart).

Note:

Hungarian National Higher Education Strategy has defined the structure and content regulation with strong R&F&I relations to industry and professional vocation adhering on vertically-oriented policy framework of OECD for smart-specialization.

*Industry 4.0 (*Irinyi program*)* and *National S3* tasks envisions an internationally competitive specialization-learning-alignment process wich works on the long term, and the strenthening of a scientific, technological and innovation (STI) ecosystem by among other things. FIEK - Higher Education and Industrial cooperation Centre abbreviation („Felsőoktatás Ipar Együttműködési Központ") which purpose is to coordinate the given sectoral education and the R&D&i activities, transform the scientific results into practical application promising business success in order to couple the applied research and the industrial experience, as well as to promote the practice-oriented education of students and doctoral students and the learning of innovative professional methods as well as to develop entrepreneurial skills.

3. Organising and Monitoring Student Placements in the World of Work - prepared by Prof. Dr. György Wéber M.D., Ph.D.

This topic is still in "**developing**" phase

1.

The PROCSEE project aims at strengthening Professional Higher Education (PHE) in Central and South-Eastern Europe, through a collaborative evidence- and stakeholder-based approach.

Theme 3 of the project will focus on organizing and monitoring student placements in the world of work, in particular increasing the quantity and quality of available student placements, so as to provide for meaningful learning experience and preparation for employment.

This topic has plenty of challenges, employers and students related issues.

Challenges:

1. Quality assurance of professional practice
2. Ensure the qualified work for the students
3. Students' communication skill
4. Identifying the essence of internship
5. Feedback: Students should be monitored
6. Highly qualified people are not in appropriate places

Challenges in details:

Ad 1.

Quality assurance is paramount in respect of the professional practices in all areas of training; emphasis is on managerial motivation in terms of quality. Highly skilled and highly motivated trainees are required. Development of alumni systems would make possible to involve further master trainers.

Ad 2.

It is important to ensure the qualified work for the students instead of simple photocopying and making coffee. Skills and professional expectations should be clearly specified.

Ad 3.

Students' communication skills should be developed and they should validate their own interest.

Ad 4.

Identifying the essence of internship is important both for employers and students. Main task is to declare its role, and create the right conditions; ensuring the legal background of the opportunities for SMEs to accept interns. Improve the awareness of the employers of rearing benefits and importance of their role. It is necessary to evaluate extensively the diversified corporate world (eg. seasonal nature of some occupations,) in the dual training system.

Ad 5.

Students should be monitored during internship, and later during their actual work

(active use of graduate career tracking system), utilization of knowledge gained through the monitoring and existing knowledge of Career Offices.

Ad 6.

Many times engineers and other highly qualified people are not in appropriate places. We should prevent dropping out of IT specialists, engineers, etc. They should not be employed as if they were not diplomas. We should help for workers without a diploma to be qualified. In our region nowadays labor migration presents serious problem.

4. **Personal learning environments in PHE (Field 4.)** – prepared by Réka Racsko

Personal learning environments are still in an early stage of development as far as the Hungarian higher education sphere is concerned.

The functioning and respective challenges of personal learning environments can be analyzed according to material (hardware), intellectual (software), and human (orgware) criteria. In addition to the simultaneous availability and development of these three factors personal learning environments require the synchronisation of formal, non-formal and informal learning schemes. Furthermore, both the conditions of the current mass education programs and the personalized learning environments should be formulated and developed as well.

As far as material resources are concerned the provision of devices required by personal learning environments poses a significant challenge. Such requirements can be met in a top-down manner calling for institutional commitment to the respective investments and the continous maintenance of the given instruments. [1] While the BYOD method (Bring your own device) tends to enjoy popularity, it raises a number of difficulties for the instructors including the coordination of various platforms, versions, and the differing computer capacity. Although in Hungary some solutions have been developed[2], in addition to hardware the acquisition of basic learning software can be problematic. Moreover, the acquisition and licensing of target software (CAD and editing programs, statistical software) primarily on to one's own device is rather questionable as well.

[1] The Eszterházy Károly College had offered such a program for many years. Accordingly in return for a symbolic downpayment guarantee students received a laptop for personal use which the institution purchased after their graduation or the given student could have bought it at the cost of the downpayment. While business sponsorship contributed to the success of the program, the material acquisition moratorium introduced in the higher education arena resulted in the termination of the scheme. The project called on the institution to make a significant investment as the annual maintenance of the computers required additional staff.

2 The operational system (Windows) and the office programs (Office program package) are available at no charge for students and instructors of higher education institutions.

In case of personal learning environments the arrangement of the educational process is a key concern too. Consequently, the elaboration of tranining management programs (LMS, LCMS) can facilitate the promotion of the digital organisation efforts of the given institution.

Intellectual resources and the curriculum are closely connected to the above issues. While certain content development and learning management-related best practices are available at the institutional level[3], there are no generally applicable best practices and the adoption of the experiences obtained in various fields represents a substantial challenge on the national level as well.

Another problem is the elaboration of a formally compatible curriculum responding to labour market and educational needs[4] while bearing relevance to the required equipment and the respective subject content. In order to achieve this goal trainers have to renew their methodological arsenal and instructors should be provided continuous training to prepare them for teaching in the new learning environment. At the same time libraries now functioning as knowledge bases have to be given an important role both in training and content development with their function retained, expanded, and reinforced. In addition to traditional services libraries provide numerous online scientific data bases meeting international professional standards. While such services do not cover all disciplines and relatively few people use them, their availability regardless of spatial and temporal restrictions provides substantial support for the development of personal learning environments.

The proper and sustainable recording, storing, and retrievability of the results achieved in personal learning environments is also a major concern as such factors play a significant role in dual training programs and impact one's competitiveness at the labour market. The continuously improvable and expandable electronic portfolio appears to be an ideal tool to record and represent the achievements of the student and the given institution as well. The portfolio can also be useful in facilitating credit recognition pertaining to personal learning environments and coping with validation issues.

Challenges related to human resources include the development of instructor and student skills facilitating an effective elaboration and deployment of the respective learning environments during one's studies and later in the labour market.

Thus we call for the full reform and methodological renewal of the total Hungarian higher education sphere. The desired cooperation and elaboration of a common culture between

3 In Hungary the open source code Moodle framework system is used most frequently for which SCORM compatible educational materials are developed.

4 Most often the traditional paper based educational material is converted into a digital form, such as pdf, without (multi)media elements and modular structural components.

similar areas of discipline can be gradually achieved via the transfer of methodology and the sharing of best practices.

Didactic innovation related to the learning process and learning environment includes the elaboration of the methodology and application of the reflective approach throughout the full higher education instruction and learning spectrum along with a more frequent use of the tutorial system, among others, in dual training schemes.