



FOSTERING COOPERATION BETWEEN TRIPLE HELIX INSTITUTIONS IN THE DANUBE REGION

DUŠICA SEMENČENKO¹, DIJANA ŠTRBAC², ĐURO KUTLAČA³

¹ Institut Mihajlo Pupin, dusica.semencenko@pupin.rs

² Institut Mihajlo Pupin, dijana.strbac@pupin.rs

³ Institut Mihajlo Pupin, djuro.kutlaca@pupin.rs

Abstract: *The paper presents points of international project EDU-LAB which is funded by the European Union aiming to improve the professional chances of young people in the Danube region. The project focuses on capacity development of partners from the higher education sector, business organizations, national public authorities and policy makers. Project partners will cooperate with the ultimate goal to link education to employment in a sustainable way. This paper is presenting general conclusions of the Collection of best practices regarding the labour market relevance of higher education in the Danube Region.*

Keywords: *Triple helix, cooperation, higher education, labour market.*

1. INTRODUCTION

Introducing knowledge society as an aim to which countries should strive, has led to a shift of the focus of studying innovation sources. Instead of institutional aspect, the emphasis is put on communication between different sectors as a way to create knowledge and social interactions. Changing the approach has brought the creation of new models of innovation development. In Triple helix innovation model, government, universities and industry represent three components that work together in order to create or discover new knowledge, technologies, products or services. The concept of a Triple helix was introduced by Etzkowitz and Leydesdorff in 1995 (Etzkowitz & Leydesdorff, 1995). Idea of the model is that in the process of transition towards knowledge economy, universities, businesses and government are in alternating bilateral and trilateral relations and dynamic communication. Triple helix model has the aim to show the complexity of the innovation process as a system on which knowledge society is based.

The Danube region (DR) is much diversified: starting from the countries' level of economic development and political status regarding EU, up to the often different and contradictory observations of the region in the context of education, research and development systems' excellence and cohesion. The aim at research of this paper is to clarify the relationship between all three sectors of the Triple helix – Business, Education, Politics/Administration from the Danube region towards cooperation in increasing the labour market relevance of higher education.

The territorial limitations could be one of the consequences for better exchange of knowledge, and migration of highly educated people, as it was shown in earlier research done in the Danube region. Chosen indicators were fairly enough for making a picture of the current situation of international cooperation in the region, as well as barriers which make obstacles in stronger cooperation achievements. This conclusion is grounded on the research done in the frame of the FP7 project Danube-INCO.NET, where authors have also been team members.

Since the research has shown that the most significant obstacles to the cooperation of researchers within the Danube region (and beyond) are those related to: overall capacity of the country; administrative and bureaucratic procedures in the application process, implementation, and reporting on the international projects; and socio-political conditions in the country, the specific recommendations were derived.

Barriers regarding overall capacity of the country are the most important barriers in international RTDI cooperation among the Danube region countries. Strong recommendation to the S&T policy makers in the countries of Danube region is to increase investments in science and technology and particularly increase financial support for international cooperation from public sources. In enlargement countries, governments should harmonize the laws and science programs with European Union (EU). Aligning national strategies is a crucial point in order to improve the cooperation in the Danube region.

Following the findings based on the analysis of administrative and bureaucratic barriers, recommendations for S&T policy makers in DR countries are:

- to establish efficient processes for programs and projects evaluation.
- to reduce the quantity of projects' documentation.
- to speed-up evaluation procedures and to shorten the time needed for contracts.
- to standardize procedures for project submission and monitoring.
- to secure forehand / on time payment by funding organizations, reducing delays.

Socio-political barriers are not so important to the international cooperation at the whole sample of the Danube region countries. As the main obstacle, an inferior position of research and innovation compared to the economic development and political stability was emphasized. Accordingly, it can be concluded that in order to improve international cooperation, the greater concentration of resources on research and development in the Danube region is needed.

2. NEW DANUBIAN GOVERNANCE IN LABOUR MARKET RELEVANCE OF HIGHER EDUCATION

Continuation and deeper insight in the triple helix model of the DR countries and challenges of the Education and Business sector cooperation will be possible within the project New Danubian Governance in Labour Market Relevance of Higher Education. The project EDU-LAB is gathering researchers from 21 partner organizations, belonging to 9 DR countries of which 8 were engaged in collecting of best practices: Bulgaria, Bosnia and Herzegovina, Germany, Hungary, Romania, Serbia, Slovenia, and Slovakia. One of the preconditions for the region definition is classification of countries/regions of the Danube region, according to geopolitical affiliation: EU member states (MS) and regions upstream of the Danube: Croatia, Czech Republic, Hungary, Slovakia, Slovenia, Germany – in particular Baden-Württemberg and Bavaria; EU MS and regions downstream of the Danube: Bulgaria, Romania; Enlargement countries: Bosnia and Herzegovina, Serbia.

In the selected Danube Region countries, existing governance models regarding labour market relevance of higher education, very much depend on the complexity of country organisation and include various government bodies, laws and bylaws responsible for this area. Also, national legislation in the field of higher education is very influenced by EU policy and regulations. Certain countries have also developed National strategies for higher education which include priorities that should be fulfilled in certain period. There are strong thematic linkages between this output and European Union Strategy for the Danube Region (EUSDR), especially Priority Area 9. The output is contributing to the following PA9 targets:

- Contribution to improved educational outcomes and relevant skills and competences in the Danube Region, focusing on learning outcomes for employability, entrepreneurship, innovation, active citizenship and well-being,
- Contribution to increased quality and efficiency of education, training and labour market systems,
- Contribution to a closer cooperation between educational, training, labour market and research institutions, in particular on transnational, regional and bilateral levels.

Therefore, specific objectives of EDU-LAB project are:

- Enhance cooperation between business, HE and public authorities
- Encourage the further development of Higher Education Acts
- Foster the creation of more professionally-oriented study programmes.

3. ANALYSIS OF BEST PRACTICES

One of the starting points in definition of the possible and desirable triple helix model which can gather DR countries around above mentioned targets fulfilment is Collection of best practices in a several fields of interest. Collection of best practices contains four main sections:

- Encouraging the further development of Higher Education Acts,
- Fostering the creation of more professionally-oriented study programmes,
- Enhancing professional training (train the trainers) in companies,
- Strengthening the regional economic development.

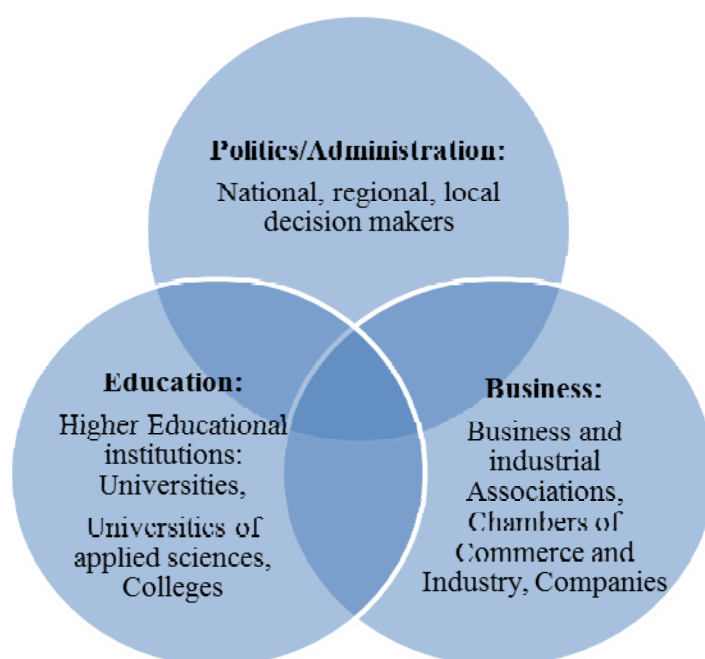


Figure 1: Main target groups of EDU-LAB project

Main sections of the document “Collection of best practices” include cooperation between Triple helix institutions which are at the same time main target groups of EDU-LAB project (Figure 1).

3.1 Encouraging the further development of higher education acts

In the selected Danube Region countries, existing governance models regarding labour market relevance of higher education, very much depend on the complexity of country organisation and include various government bodies, laws and bylaws responsible for this area. Also, national legislation in the field of higher education is very influenced by EU policy and regulations. Certain countries have also developed National strategies for higher education which include priorities that should be fulfilled in certain period. More information about specific countries can be found in chapters below.

Presented activities of selected countries prove that labour market relevance of higher education has been recognised as very important in developing higher education acts, as well as in other activities such as projects, programs, establishing centres for career development, including companies in developing educational curricula, etc. When it comes to financial resources used for these purposes, European funds and national resources are used parallel. It is also visible from the chapters below that only Germany and Hungary have distinction between Universities and Universities of applied sciences where the latter ones are based on practice-oriented education.

3.2 Fostering the creation of more professionally-oriented study programmes

Creating professionally-oriented curricula in higher education has the aim to establish direct link between university graduates and labour market needs which will result in providing well trained staff and competitive advantage on macro level. Selected Danube Region countries have various attempts to give contribution in this field. Germany and Hungary already have universities of applied sciences (Figure 2), while other countries are having various activities in order to improve the situation. Some of those activities are: creating national agencies responsible for professional education and training, including lifelong learning principles, obligatory internships for university students, various programs of career development centers, etc.

The range of best practice measures applied in selected countries with the aim to create more professionally-oriented study programmes is very broad: funding student practices and internships in

companies and various organisations, e-learning programs for English teachers, team work of students on real business problems, MBA programs, Cisco Networking Academy program, etc.



Figure 2: Dual study programs at universities of applied sciences in Germany

3.3 Enhancing professional training (train the trainers) in companies

Triple helix model assumes that all academia, policy makers and businesses are dynamically interconnected and interdependent and actively participate in innovation and knowledge creation and that all three stakeholders benefit from this cooperation. This is one of the most challenging tasks of the developing countries and trainings provided by HE institutions to companies are integral part of this process. Danube region countries have different approaches in this respect.

Unlike Germany in which cooperation between HE institutions and companies has long tradition and is built in institutions and legislation, other selected countries have various initiatives in this field. Some of the initiatives are: e-learning courses and distance learning, cooperation with individual companies and clusters, creating joint master programs, summer schools, student competitions, etc.

3.4 Strengthening the regional economic development

Transnational cooperation supported by the concept of the Smart Specialization contributes to improvements of global competitiveness and creation of economy based on knowledge. Smart Specialization assumes developing a vision and strategy including competitive advantages to help boost development of excellence and region's potentials based on knowledge and create conditions to use regional diversity as advantage. S3 means identifying region's potentials and strengths as basis for competitive advantage (smart), further develop the strengths and potentials through research and innovation (specialization) and prioritise investments in research and innovations (strategic). Bosnia and Herzegovina as non-EU countries still did not developed S3 strategy on a national level, while other selected countries have national S3 strategies and the level of including of HE in this is different.

Creating educational programs in accordance with the needs of specific economy sectors and in cooperation with various stakeholders is present in all selected countries. However, the sustainability of these programs is different and mainly is depending on the strength of the economy.

4. CONCLUSION

As a consequence of economic crises, fragile labour markets, structural problems, economic and demographic inequalities are still apparent challenges in the Danube region. Several projects within Danube region transnational cooperation are dealing with different aspects of national innovation systems presented here as a triple helix concept. Some of them already yield results which make a synergy with activities of ongoing projects.

Exchange of good practices provides relevant inputs for achieving EDU-LAB project main and specific objectives by giving collected best practices in the labour market relevance of higher education, fostering cooperation by various stakeholders and giving important contribution to further development HE acts and professionally oriented educational programmes.

Exchange of good practices will strengthen institutional capacities and multilevel, transnational and intersectoral governance. It will provide viable frameworks and models for more effective, wider and deeper

transnational cooperation across the region with a view, on the long run, to retain more young talents in the Danube region.

The output will have a transnational impact since it will act as a policy driver aiming to tackle the common challenges and needs deriving from specific policy fields. Therefore, transnational cooperation is expected to deliver tangible results through the development and practical implementation of policy frameworks, tools and services.

A joint transnational learning process which started a couple of years ago, will enable the improvement of institutional capacity and will bring an added value for all partners in this specific field of cooperation.

Acknowledgement

Research presented in this paper was supported by the Ministry of Education, Science and Technology Development of the Republic of Serbia, under the projects: "New technologies in intelligent transportation systems - application in urban and suburban areas", reg. no. TR 36005, (2011-2015); "Research and Development of the Platform for Science Based Management of the Scientific and Technological Development of the Republic of Serbia", reg. no. III 47005, (2011-2017), and by the Interreg DTP project EDU-LAB - New Danubian Governance in Labour Market Relevance of Higher Education.

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