REFORMS
INSIDE

Publication of Higher Education Reform Experts and National Erasmus+ Office in Montenegro

ISSUE 2

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National Erasmus+ Office

TABLE OF CONTENTS

Introduction

Instead of Introduction

Vanja Drljević
National Erasmus+
Coordinator

Participation in Erasmus+ programme has positively impacted the personal and professional development of more than 10 million people in Europe. The Erasmus+ programme is really an example of a story of success, it has been recognized as one of the most successful initiatives of the European Union, because it has substantially developed, and now it comprises all levels of education and training. The subtitle of the Erasmus+ programme, the slogan – enriching lives, opening minds – really represents the backbone and core of the programme.

The Erasmus+ programme has significantly contributed to the reform of education, harmonization with the European standards, modernization and internationalization of Montenegrin educational institutions, through innovation of already existing and introduction of new study programmes and training of students and teaching/administrative staff, through participation in mobility etc.

Montenegro has been participating in the programme from its very beginning, but it has not been a beginner in the EU projects in the education field. Knowledge, experiences and contacts through Tempus phase of the programme (2000-2013), represented a solid basis for widening the knowledge and strengthening acquired links with the EU institutions and institutions from other regions, the Western Balkans in particular. 2020 has marked the end of the first cycle of the programme, as well as two decades of participation of Montenegro in the EU programmes in the education field. The spirit of the programme is ubiquitous in our country, and permeates through all programmes in which Montenegro took or takes part.

During this seven-year period of participation of Montenegro in the Erasmus+ programme (2014-2020), Montenegrin higher education institutions have succeeded in building and improving their education systems in various manners.

Talking in numbers, the results that Montenegro has achieved are exceptional. Bearing in mind participation of Montenegro in 35 capacity building in higher education projects, 8 of which are coordinated by Montenegrin higher education institutions, with a budget which exceeds 23.4 million euro, we can conclude that this is a great success for our small country and certainly a result that Montenegro can be proud of. However, the figures themselves, although an important indicator of success, are not the only indicator of what has been achieved through participation in the Erasmus+ programme. This particularly refers to the results which cannot be shown in figures i.e., sustainable local and international partnerships, at institutional and individual levels. The cooperation that was established through participation in these projects launched "an avalanche" of various initiatives and projects.

352 international credit mobility projects in total, through cooperation with more than 200 EU universities, as well as the number of students who took part in Erasmus Mundus Joint Master Degrees, programmes of excellence which are extremely competitive not only in Europe, but also worldwide, represent exceptional results. Young people who took part in this programme are the best ambassadors of Montenegro, and the academic community as well as the society as a whole should take advantage of their experiences. Participation of students in the Erasmus+ mobility programmes has positively impacted their personal and professional development, independence, self-confidence, development of soft skills, knowledge of foreign languages, preparation for the labor market and life in general etc.

Jean Monnet activities are also very important activities that contribute to the European studies by promoting excellence in teaching and research in the field of European integration studies and represent an extremely important component for accession of Montenegro to the European Union, but also contribute to a better understanding of the European Union values. EU integration is ubiquitous, in a direct or an indirect way, in almost all Erasmus+ projects.

The greatest impact of the Erasmus+ programme can be perceived through valuable contacts with institutions from the Western Balkans as well as the EU institutions which have been generators of further cooperation in already existing fields or completely new fields. A great number of local and international partnerships have been created, which were then further developed and upgraded through other actions of the Erasmus+ programme. Learning in different educational and cultural environment has positively impacted raising the awareness of youth, who, enriched with knowledge and enthusiasm, shared the experiences gained with their peers, encouraging them to take part in further undertakings. The Erasmus+ programme actually merges, at first sight incompatible things, into a perfect whole, enabling gathering of different people, cultures, various educational systems, completely new things, and also offering participation in various activities which make Montenegro one step closer to the EU membership. Harmonization of educational systems and understanding different cultures represent something which dominates and permeates through all Erasmus+ projects. This programme taught us to cooperate more with each other, and it inspired creativity, which is something of special importance to our small country.

Last but not least, it is important to mention our Higher Education Reform Experts team which contributes to initiating the topics of interest for Montenegrin higher education system. Some of the topics within this publication consider the responses of our higher education system to current challenges caused by the COVID-19 pandemic. Therefore, this second edition of the publication is aimed at presenting some of the most important topics within Montenegrin higher education system as well as presenting some of the Erasmus+ projects which contribute to improving our education system, at the

Reflections

Digital Education at the University of Montenegro during COVID-19 Pandemic

Danilo Nikolić
University of Montenegro

Introduction

The digital transformation in higher education is mainly influenced by technological advances, the need for individual flexibility, and the increasing demand for digital skills [1]. Furthermore, the COVID 19 pandemic has accelerated the digital transformation. At the beginning of the pandemic, Higher Education Institutions (HEIs) have reacted promptly by transforming almost all their activities, including teaching & learning, research and administration into a digital format [2]. Digital education included modes of e-learning and distance learning [1].

The previous literature identified various similarities between e-learning and distance learning [2]. However, e-learning presents the delivery of learning through web-based technology and the internet [3], while distance learning presents correspondence course in which learning materials are sent to the students via email or posted at university web site/platform [4]. In general, most of the universities combine both modes for digital education [5]. For this purpose, IT market is offering technologies such as video conference platforms and applications, like Zoom, Adobe Connect, Kaltura, Panopto, Microsoft Teams, Google Classroom, etc.

However, the shift to digital education through e-learning and distance learning modes has raised many questions on its quality. Accordingly, to establish effective virtual learning environment, it is necessary to provide suitable digital infrastructure for teaching staff and students. In addition, teaching staff needs digital skills in order to adapt their teaching process as well as pedagogy to online environment [1].

Transformation toward digital education at the University of Montenegro

The use of digital tools for education has been present at the University of Montenegro for a certain time. The Development Strategy of the University of Montenegro for period 2019 – 2024 recognizes the importance of digital education [6]. It became clear that e-learning and distance learning should be included to a much greater extent in the teaching & learning process, and therefore, it was necessary to provide a sophisticated infrastructure and training for both teaching staff and students to overcome the upcoming obstacles and challenges. The Center of the Information System (CIS) team has had the most substantial role in the process of digitalization at the University of Montenegro.

At the outbreak of pandemic in Montenegro in March 2020, the University of Montenegro announced suspension of all face-to-face classes. Students that were residing on campuses in Podgorica, Niksic, Kotor and Cetinje were required to move

out of dormitories. Most of foreign students on mobility stayed in Montenegro as the country had the lowest number of recorded cases in Europe in that period. Noteworthy, the University management issued an announcement indicating that teaching & learning processes are to be continued online, using both e-learning and distance learning modes.

Implementation of online teaching & learning at the University of Montenegro was not new, but it was limited to just few faculty units. At that time, the vast majority of teaching staff and students have had little if any experience of online classroom, from both technical and pedagogical point of view. Thus, there was a significant pressure on the CIS team from the very beginning. The CIS team created instructional guides and conducted online workshops to provide teaching staff and students with knowledge on how to use various e-learning platforms (mostly Zoom and Skype) and distance learning (mostly Moodle, University web site and e-mail communication) [7]. Thanks to this, teaching staff have put a lot of effort into setting up online courses, developing learning materials and tests, and holding consultations.

The CIS team has launched a service which provided access to AAA infrastructure to all students at the beginning of the 2018/2019 academic year, namely au-tomatically generated credentials that would be used to access online services provided by the Academic Network [7]. Under 10% of active students used these accounts until March 2020. Full usage capacity was achieved during the pandemic. In order to provide distance learning service, the latest version of Moodle platform has been installed on a virtual server [7].

The CIS team also identified a requirement for additional support in order to resolve all ongoing problems as quickly as possible and started a User Support Service through email address nastava@ucg.ac.me which provided both students and teaching staff with fast replies and support so they could attend classes or give lectures regularly while staying at home [7].

As Montenegrin Law on Higher Education [8] indicates that final exams must be held at the premises of the universities, upon reduction of measures against COVID 19 at the end of May, final exams were organized in June and July. Also, in June, menagement of the University of Montenegro made an announcement stating that, where applicable, all lab exercises for academic year 2020/2021 should be prepared and recorded during summer break, and delivered to students if situation does not allow face to face exercises. As for the first semester of academic year 2020/2021 there was not state lock-down, classes were held blended, both face-to-face and online, according to the national measures for schools and universities in Montenegro. Face-to-face classes held where it was possible to provide social distancing.

For the current academic year, the CIS team prepared Moodle platform for both e-learning and distance learning modes [7]. Considering that the teaching process requires an audiovisual contact, the CIS team has created a cluster made of fourteen BigBlueButton servers which provide a powerful videoconferencing tool, integrated with the existent Moodle platform. Besides, other activities supported by Moodle platform, such as an upload of teaching materials, creation of activities and tests, teaching staff can use this tool to create video conferences, including the possibility of saving them in the real time, setting them for further viewing, defining time limitations and management of entire administration within the same course. Since the beginning of academic year 2020/2021, 11.000 out of 17.000 active students have used this Moodle platform.

University of Montenegro plans to further invest in enhancement of digitalization of teaching & learning process as well as in additional student and staff services associated to digitalization. Besides in-

vesting in digitalization from its own resources, the University of Montenegro is seeking for additional funds from the EU programs. Within Erasmus + CBHE 2019 call, University of Montenegro will benefit from received grants from two projects related to enhancement of digital education. The first Erasmus + project "Development of Regional Joint Master Program in Maritime Environmental Protection and Management - MEP&M" with coordination of the University of Montenegro is aiming to implement the first online joint master program in English language using state of the art digital technology for creation of e-learning courses. The second Erasmus+ project "Improving the process of education through the development of e-learning multimedia platform and smart classrooms - SMARTEL", with the University of Montenegro participating as partner institution, is aiming to implement a state-of-the-art multimedia learning platform and smart classrooms at the University level.

Additionally, in order to maintain social distancing in period of pandemic, the CIS team developed a software for electronic submission of required documents and enrollment of candidates at the University of Montenegro [7]. Software was used for enrollment at all study levels, from undergraduate (bachelor degree) to graduate (master degree) level. This was the first time to organi-ze online enrollment at the University of Montenegro.

Conclusion

COVID 19 pandemic has pushed us to rethink how to meet the demands of digital transformation in higher education. At the University of Montenegro, teaching staff put a significant effort into converting their face-to-face lectures into a digital format and have demonstrated a great level of flexibility. To assure digitalization process on the long run, the University is tending to organize trainings for teaching staff in order to further enhance their skills and know-how. Additionally, University will provide further investments in the technical infrastructure supporting digitalization of education and student services in order to establish blended learning approach in its teaching & learning process.

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Prof. Danilo Nikolić (PhD in technical sciences/material science) is rector of University of Montenegro and full professor at the Faculty of Maritime Studies. During his academic career he occupied also the position of dean at the same faculty. He was National coordinator for Horizon 2020 and NFP for energy and Member of Montenegrin Council for higher education at the Ministry for science of Montenegro responsible for implementation of Montenegrin law on higher education in Montenegro. He was also visiting professor and researcher at the University of Michigan and Japanese National Institute of Advanced Industrial Science & Technology. He is also the member of national HERE team. His main research fields are I.C. Engines, Fuels, Combustion, Emission and Environmental protection. He publishes and leads international and national projects in those fields.

Mubera Kurpejović
Ministry of Education

#UčiDoma (#LearnHome) and the Response of the Montenegrin Education System to the Pandemic Caused by COVID 19

The pandemic caused by COVID 19 changed lives as a whole and had a strong impact on education systems around the world. To protect children and students, as well as employees, and ensure continuity in teaching was not easy. This once again showed the importance of digitalization of the educational system and its advantages.

Owing to all actors, good synergy and readiness of employees, the Montenegrin education system has prepared a right response to the current situation through the project #LearnHome and online teaching at all levels of education.

The previous school year ended in a way that classes were organized online, except for the final exams at the faculties, while the beginning of the 2020/2021 school year was organized somewhat differently. In the last school year, about 1,700 lectures were recorded in 17 subjects, which received positive grades from the entire social community.

In accordance with the epidemiological situation in Montenegro and the Recommendations for the protection of the health of students and employees in primary and secondary schools during the pandemic COVID 19 of the Institute of Public Health, the school 2020/2021 year began on 1 October 2020, with the so-called combined model in schools, while higher education institutions, in accordance with their autonomy, and depending on the capacity organized classical or online classes.

Students of I, II, III, IV, V and VI grades of primary school and students of I grade of secondary school (gymnasiums and vocational schools) attend classes in schools, while students of VII, VIII and IX grades of primary school and II, III and IV grades of secondary school (gymnasiums and vocational schools) follow classes online.

Following the good experiences from the previous school year, the Ministry of Education, under

the slogan #LearnHome, carried on with the implementation of distance learning from October 1, 2020, as an additional form of support to all students, regardless of whether they attend school or not.

A special role and quality in student and teacher communication was made possible through the use of the Teams platform, provided by the Ministry.

About 225 teachers from 63 schools and 24 educational supervisors participated in applying the concept #LearnHome in the teaching in Montenegrin and Albanian during the first and second classification period (first semester). Over 3,500 lectures from 20 subjects were recorded.

Priority contents for primary and secondary schools for the school year 2020/2021 are broadcasted on TVCG 2 and MNE SPORT channels, in line with the program scheme which is published on a specially designed website www.ucidoma.me, as well as on the teacher portal www.skolskiportal.edu.me, the website of the Ministry of Education, social media networks and TV channels. For students who attend classes in Albanian, priority content is broadcasted on TV Teuta and TV Boin.

The content broadcasted on TV channels is also published on the YouTube channel #LearnHome https://www.youtube.com/

channel/UC07wVCV2n_Zpg3WFb9_9vew and on the portal www.ucidoma.me 1, arranged by levels of education, subjects and classes.

Statistics for last year:

> Video lectures were broadcasted on three channels: TVCG2, Uči doma 1 and Uči doma 2.

> RTCG2 was watched by 103,572 viewers during the first day of the broadcasting of #UčiDoma.

> On average, close to 20,000 spectators watched every minute.

> A website, the You Tube channel and application #LearnHome with all materials were opened.

> 400,000 visits to the #LearnHome website were recorded.

> 95,000 users of the website.

> 10,000 downloads of the #LearnHome mobile app.

> 3 million views of the #LearnHome YouTube channel.

> Over 80% of citizens watched #UciDoma content.

> The You Tube channel had the most views from the Region, followed by Germany, Slovenia, Russia, the UK, North Macedonia, Hungary, Italy, Canada, Poland and Turkey.

Having in mind the above, as well as the conducted analyses, the Montenegrin system has shown a high degree of responsibility and quality to respond to the challenges, as well as readiness to continue with further improvement.

Mubera Kurpejović (1982 Rožaje, Montenegro) is Deputy Minister and Director-General of the Directorate for Higher Education in Montenegrin Ministry of Education, Science, Culture and Sport. She graduated from Faculty of Law at University of Montenegro and won some important prizes during her study. Until 2006 works for Ministry of Education. Until 2010 Deputy Minister. She is also the President of Commission for Qualifications, Member of Higher Education Board, Board for Join and Stabilization and Commission for European Integration. She took part in numerous projects financed by European fonds and World Bank. She speaks English and Russian.

How one TEMPUS Project Fostered a New Scientific Field in Montenegro and Helped Fight COVID-19

Radovan Stojanović
University of Montenegro

Me and Tempus/Erasmus

No many European education and research programmes have contributed so much to the Western Balkan region as TEMPUS, later ERASMUS/ERASMUS+. From my current standpoint I can say, without any doubt, that this programme has been a guiding light for my professional and personal career. The beginning of the TEMPUS programme, in the early 1990s, coincided with my graduation from the University of Montenegro, when I realized that real professional and research growth was impossible without embracing the international dimension. The country of my youth, the former Yugoslavia, was among the first to join the programme, Tempus 1991 unfortunately, for only one year, because, after that we experienced both the dissolution of the country and the outbreak of civil war. I remember well that, in either 1991 or 1992, one of my professors, Prof. Novak Jauković, received a Tempus grant, but sadly, he was never able to use it, due to the international embargo that followed. Other republics of the former Yugoslavia continued to take part in the Tempus programme, often very quickly restarting their engagement, from as early as 1992, while we had to wait almost a decade to continue in 2001 as the Federal Republic of Yugoslavia, later as Serbia and Montenegro, and then as Montenegro. It was in 2001 that my professor, Prof. Momir Djurović, with whom I worked in the laboratory, received a grant as part of the Tempus III call and I started to be involved. In 2002, I tried with my own solo project and received an IMR (Individual Mobility Grant) that was devoted to an individual short-term scholarship (about three months). I used my IMR to prepare a larger grant, and I succeeded in 2005 with my first Tempus Joint European Project (JEP) named "The Introduction of a New Study Program in Applied Electronics", under code JEP-40017-2005. At that time, we could not be a "grant holders", but I was the working coordinator. It was a great recognition for me and at the same time an obligation, as a young assistant professor. The modest website for that project, www.spiae.ac.me still exists to this day. I remember that one of the members of my consortium Prof. Ladislav Novak, a legend of Tempus in the former Yugoslavia, from whom I learned a lot about international projects. Through this project we composed a new curriculum for Applied Electronics at the University of Montenegro, equipping a modern laboratory, called MEDEL, which remains among the best at the Faculty of Electrical En-

gineering and which is the birthplace of many experiments and innovations in Montenegro. Many brilliant students, who later went on to be excellent engineers took their first steps in this laboratory. In addition to offering education, we also used this Laboratory to apply for and win other projects from different schemes. Although relatively young, I was already experienced enough to join the team of Tempus evaluators that worked at that time as part of the European Training Foundation (ETF), suited in Turin, Italy. Later the pool of evaluators moved to Brussels. I continue to live and work with this programme right up to the present day, covering almost two decades of my professional life.

BioEMIS project and its impacts

This story is about my 2nd Tempus project "Studies in Bioengineering and Medical Informatics (BioEMIS)", 530423-TEMPUS-1-2012-1-UK TEMPUS-JPCR. It was about Biomedical Engineering (BME) that in essence means the application of engineering sciences and skills in medicine. It is well known to everyone that modern medicine mainly developed thanks to technology, rather than breakthroughs in clinics. The medical devices we use today are the result of the joint work of physicians, scientists and engineers. BME is an extremely complex and extensive discipline that is not easy to summarize

and teach through a couple of university courses. In developed countries it has its own clear educational profile, from the undergraduate to the doctoral level, and covers a number of scientific and technical fields such as: biomedical electronics, biomedical instrumentation and measurements, biomechanics, biomaterials, cell engineering, tissues and genetics, clinical engineering, rehabilitation engineering, pharmaceutical engineering, bio-nano technology, bioinformatics, safety standards of medical equipment, telemedicine and numerous others. In Montenegro, BME as a field was poorly developed, probably due to the lack of our own high-tech industry and the dominance of classical approaches in the health sector, where the "white coats" play the main role and sees new medical devices as somewhat suspect " black boxes". The Institute of Physical Medicine, Rehabilitation and Rheumatology "Dr Simo Milošević" in Igalo, was, for a long time, the only institution which dealt with BME, mainly through rehabilitation engineering. This institute was a member of our BioEMIS consortium.

From our current perspective, it could be said that the first milestones in developing biomedical technology and informatics in Montenegro were the BioEMIS project and the MEDEL laboratory. In terms of curricula reform, BioEMIS introduced two new study programmes: a 1-year

Specialization in MEDICAL ELECTRONICS and a 1-year Masters course in MEDICAL ELECTRONICS, both offering 60 ECTS credits, http://www.apeg.ac.me/medel/. In addition to the University of Montenegro, other participants in the project from our country included the Ministry of Education and Sport, the Simo Milosevic Institute, the Montenegrin Medical Chamber and an ICT company called Čikom, out of a total of 24 partners from across the EU and the region. The leadership of the project was entrusted to the University of Birmingham, UK, and besides that institution, the EU partners included the University of Pierre and Marie Curie, known as the Sorbonne, in Paris, the Technical University of Tampere, Finland, and the University of Maribor, Slovenia. Among the partners from Serbia, there were the Universities of Kragujevac, Nis and Belgrade, the University of Defense, the Military Medical Academy, several clinical centers, specialist medical and technology companies and the Medical Chamber of Serbia. Bosnia and Herzegovina was represented by, among others, the Universities of Banja Luka, East Sarajevo, Mostar and Bihac. Since 2016, about 60 students have attended MEDEL courses, 45 at the Specialist level and 15 at the Master's level. Some of them continued their careers abroad, where they successfully completed their Master's or PhD degrees. The engineers

The first students of BioEMIS, now reputable experts, with Prof. Stojanović

from MEDEL are the backbone in the process of maintaining medical equipment in Montenegro. Several of them have formed successful startup companies.

What made the BioEMIS project particularly recognizable and well regarded is its sustainability and impact. It launched an avalanche of new projects and research in the fields of biomedical engineering and biomedical technologies. Science and education policy makers in Montenegro have begun to understand the importance of this discipline and awarded several key projects in this area from the funds received from the World Bank in 2013: "BioICT" (ETF Excellence in Bioinformatics Center) , "New ICT trends based on a significantly smaller number of data / measurements and their application in multimedia, biomedicine and communications" -CS-ICT, "Development, validation and application of the telemedicine system TELEMONTEKG (TM ECG) for rapid diagnosis of heart disease in Montenegro". A CENTER OF EXCELLENCE FOR BIOMEDICAL RESEARCH (CEBIMER) has been established at the Simo Milošević Institute in Igalo as a strategic project of the Ministry of Science. A POSTGRADUATE ACADEMIC MASTER'S STUDIES course on "INFORMATION MANAGEMENT IN HEALTHCARE" has been created at the University of Donja Gorica (UDG). One of the largest planned projects in science in Montenegro is the proposed International Institute for Sustainable Technologies (SEEIIST) which will offer a cutting-edge cancer therapy department. The number of publications in this field authored by Montenegrin researchers has started to grow exponentially. There are now a large number of works by Montenegrin researchers in the field of biomedical research. The MEDEL programme has established one of the most widely respected workshops in the field of Biomedical Engineering and Medical Informatics in Europe, the "Workshop on Recent Advances in Computational and Engineering Methods in Biomedicine and Rehabilitation", http://embeddedcomputing.meconet.me/special-sessions/#cembr. This year, we are holding the 4th Workshop.

BioEMIS and COVID-19

During the time of the COVID-19 pandemic, the programme has more than justified its existence. Several devices have been developed from its laboratories, helping people to fight COVID-19. One of them is a handheld-home monitor for COVID symptoms called Syntrofos (from the Greek for Companion). Syntrofos is an electronic device that monitors and measures the main symptoms of COVID such as body temperature, respiratory rate, heart rate, oxygen saturation and so on, and displays the information on a mobile phone, while also sending the data to a remote doctor at the COVID Center. Thanks to Syntrofos, it is possible for everyone to have a personal COVID symptoms monitor, at home, 24/7 all year round. Syntrofos will be produced by the startup company MECOnet, www.meconet.me, which is also a development of MEDEL.

A demonstration of various anti-COVID-19 devices in the MEDEL laboratory
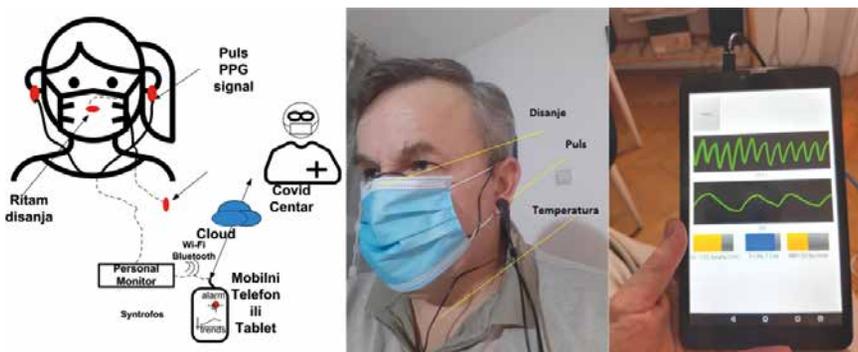
How Syntrofos is working

Prof. dr Radovan Stojanović is coordinator of MARDS project, member of Montenegrin HERE team and member of Doctoral Board of University of Montenegro. He is almost for two decades active in reforming higher education system in line with EU policies. He coordinated or sub-coordinated 6 TEMPUS/ERASMUS+, 2 NATO, 1 FP6, 1 FP7, 1 WUS, 1 World Bank and 1 H2020 projects as well as 4 Bilateral and 5 National projects. He is nominated as an expert in EACEA (Education, Audiovisual and Culture Executive Agency) from 2005, EURAMET (European Association of Metrology Institutes) and Funds for Innovations of Slovakia and Macedonia. His publication score counts more than 300 publications and 1000 citations.

More about Radovan Stojanović: https://en.wikipedia.org/wiki/Radovan_Stojanovi%C4%87

http://www.apeg.ac.me/rstojanovic.htm

Impact of COVID-19 Pandemic on the Education System of the Faculty of Arts

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Nowadays, education is considered a condition necessary for the survival and development of every modern society, and online learning is often discussed as a growing global phenomenon. Is online learning really a phenomenon or is it just, until now, a poorly recognized possibility in the education system, caused by the outbreak of the COVID-19 pandemic, or a different approach to teaching and learning at national level?

The pandemic COVID-19 has drastically altered almost all aspects of life of all social groups and has brought a number of economic and social consequences. When it comes to students, as well as youth in general, the COVID-19 pandemic has caused additional difficulties in the fields of education, learning, employment and mental health preservation. Bearing in mind that students and future generations will "bear the burden" of the long-term economic and social consequences of this crisis, it is necessary to avoid emphasizing social status and social differences, but also to enable the inclusion of young people in the process of building a stronger society and introducing new measures in order to overcome the crisis. "Disruption" in the approach to education and weaker employment opportunities, as a result of economic decline, can lead this generation of students to unstable and uncertain state on the road to gaining employment, maintaining quality work places and creating personal income.

Quality assurance and access to online teaching become the core of the global issue of the actual education system. Unequal knowledge of digital services and unequal opportunities for approach to electronic devices, lead to a risk of intensifying and emphasizing economic and social differences among students during the pandemic. For instance, a student from a family of worse financial situation may not have access to digital devices at all, or most of the time, but these devices are necessary for taking part in this model of teaching. Online teaching requires unlimited internet, quality internet, and possession of a laptop or a computer. Lack of physical contact and social support from professors and colleagues may also lead to hardships and inconveniences experienced by a student, and, in the worst-case scenario, giving up education. On the other hand, online learning brings a number of benefits: in this way of learning, shy and insecure persons are more noticeable than in the traditional form of teaching, students are allowed to study beyond the borders of their country, while staying home, and in a country where classes are held, there are no costs of rent and stay, or are reduced to a minimum. This form of learning provides equal opportunities for persons with disabilities to be completely involved in educational activities. It is important for the education system to be adapted to novelties and it is also important to take advantage of the opportunities that are offered, and in this way, students keep up with the new technology, follow global trends and thus increase their chances to gain employment and build their professi-

onal careers. Online learning is one of the increasingly growing trends in the systems of education.

Since the very outbreak of the COVID-19 pandemic in Montenegro, the University of Montenegro has actively promoted distance learning platforms, and students and professors have relatively easily and successfully adapted to this method of working, i.e., participation in teaching and learning. However, despite maintaining continuity in online teaching, several characteristics of some university units – Faculties of arts from Cetinje: The Music Academy, Faculty of Dramatic Arts and Faculty of Fine Arts should be taken into account. As the poet Tin Ujević said "Art neither receives nor leaves the world as it found it", the COVID-19 pandemic has disrupted the creative and cultural industry, but it has provided new opportunities and greater publicity for those who do it online. The cultural sector is important in terms of economic development and employability. It encourages innovation in the economy and contributes to a number of other channels for positive social impact that is why the importance of its sustainability is indisputable.

In spite of the specificities, online teaching can respond to the demands of faculty of arts, but to what extent and with how much success? It is possible to get an answer to this question by evaluating online teaching during the pandemic and by conducting the surveys whose respondents would be students and teaching staff. On the other hand, when it comes to students of study programmes which are based on practice, the pandemic has provided them with more free time for practicing, and when it comes to students of study programmes based on theory, the pandemic has provided them with time for examining different literature and different aspects of art. Zoom and Skype platforms are the most used platforms at faculty of arts, however, for some subjects of a practical nature, online teaching is unfeasible, because it requires group teaching and live contact of academic staff with students.

Valentina Tripecki, student trustee of the Music Academy, considers the problems that students encounter is group playing and group singing, which imply working in groups of thirty and more students and are impossible to be performed online, so that students remain deprived of some subjects such as orchestra and choir, which are actually crucial for their future professional careers. Bearing in mind that music is a temporal art, in this regard, online teaching has its advantages, such as the fact that students have enough time to understand the music they perform, and generally enough time to examine the music itself. However, on the other hand, there are more problems that students encounter, because to play and to hold a class via any application available is almost unfeasible. However, there is a possibility of recording audio and sen-

ding it to professors, which makes it much easier for students, but none of these options really represents a good substitute for live teaching.

Performing online teaching at the Music Academy is a double-edged sword. On the one hand, it enables the students to read the programme on their own, to learn it and to perform it, and on the other hand, the exclusion of a professor from that process can be very harmful when it comes to the way of playing, primarily the technique of students, because most of them are at the phase of advancement in playing, and this represents a turning point for producing independent artists after graduating from the faculty.

Lana Bulatović, student trustee of the Faculty of Fine Arts, points out that at this faculty, lectures based on theory that do not require work in studios, are quickly adapted to the current situation, with equally quality results in terms of acquired knowledge. When it comes to the study programme graphic design, where practical teaching is mostly related to work on a computer, it was easier to communicate with professors and send those works, which are of a digital nature, and to receive an effective feedback. When it comes to the study programmes sculpture, painting and graphics, it was more difficult. Students do not have an opportunity to make sculptures with certain materials at home, they do not have adequate space, so that drawing, painting and making scul-

ptures get disabled. In spite of it, with good cooperation between students and professors, the maximum quality was achieved under the given conditions. What is the most important, is the daily communication of students and the exchange of knowledge during the lectures, and in this situation, it was not possible. Students get the most out of the lectures from each other. Taking into account mistakes and quality solutions of their colleagues with whom they work on a daily basis, students build their own experiences and develop critical thinking, as one of the key traits that a good artist must possess.

Sara Stijović, student trustee of the Faculty of Dramatic Arts, believes that virtual closeness has opened a window for students to "peer" at the opportunities that the world offers - many free online projections, lectures, workshops organized for people from all over the world who love or deal with movie or theatre. On the other hand, this period offered a structure of hundreds of screenplays and dramatic texts waiting to be written. The movies were not made. The performances did not take place. Neither actors nor directors had the opportunity to prove themselves to others. Once again, the paper became the closest associate of the playwrights. Due to their inability to attend quality lectures in a traditional form, with the help of professors, students turned to the fields of research and learning that they may not have had time to reach before.

Bearing in mind all the previously mentioned, it is evident that students are not enabled to regularly attend the classes foreseen by syllabus and curriculum of all subjects, but also that this model of teaching mostly affects the aforementioned faculties. In addition to it, various projects related to stage play have been postponed: festivals, concerts, exhibitions and performances, but also the activities of Student Councils of faculties of arts. In this situation, it is very important that professors inspire students to study, advance and keep up with their tasks and obligations, but also to point out the problems they encounter while studying, so that the whole academic community can create more feasible models of teaching for the study programmes which are substantially different and specific. It is necessary to mention the fact that, for many years, faculties of arts have faced the problem related to infrastructure, i.e., spatial capacity, because these faculties are established in buildings of former legateships, whose premises are small, making the process of holding lectures difficult, especially bearing in mind the obligation of students and teaching staff to adhere to the measures of the National coordination body for contagious diseases. In this context, the importance of making an appeal and insisting on moving these faculties into the university complex of the Faculties of Arts in Cetinje is evident, since it would represent a great "alleviation" for students and academic staff.

Exposure to pandemics and crises leaves long-term effects when it comes to approach to education, employability, mental health and other opportunities we, as a society, encounter. Strengthening public institutions and strengthening Government are crucial for ensuring the well-being of youth and all future generations in these challenging times. Students should take action as "a connective tissue" in public institutions, decision-making processes and problem-solving processes, to contribute to achieving long-term goals, building fairer and more inclusive policy outcomes and creating social "immunity" to the challenges imposed by modern age. All the good that the COVID-19 pandemic awakened in us can also be a crucial determinant of our society on the road to further prosperity.

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Teaching Humanities in (Post-)Virtual Era

Jelena Knežević
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The global urge to stay at home in order to prevent pandemic spreading of COVID-19 made many university and university teachers to change quickly from live to online teaching in order to bring learning content to their students. Without big words academia embraced the distance learning possibilities that many years were discredited as inadequate and at least insufficient in comparation to live teaching, especially in humanities, where in spite of the decades of digitalization frontal teaching persisted (for a reason), while rhetorical exercises and vis-à-vis discussion considered to be one of the main teaching methods.

On one side digital humanities have been acknowledged as scientific approach of significant critical and theoretical value since decades, offering the set of digital tools to empower the research in historical-philological and hermeneutical sciences and challenge their existing theoretical paradigms. On the other side, language instruction went globally virtual and online, using quickly developed and constantly upgraded platforms. However, teaching of literature, history, philosophy or religion obviously needed the global tectonic shift to become aware of all the tools the virtual era offers. Coronavirus pandemic forced in that way not only all institutions but also many instiutes – like ex cathedra teaching – to go virtual and rethink the kinds of effects they achieve.

Even though during the first few weeks of global quarantine we could see one well-known professor teaching in front of the puppets and teddy bears claiming that he could not teach without public, the remote teaching proved very quickly to be a real success. Not only that some big online libraries were unlocked and offered their content for free, but also the competent spoken word on world of the spirit in its historical manifestations become public and freely available through social media channels and went viral making the others understand it without actually studying language, art or literature. That is how the education of intelligence and knowledge became more accessible contributing to the development of the maturity of the individual and collective formation.

At the same time the digital teaching of humanities empowered the independent work of students that brought humanities back to its origins of autonomous learning through following instruments: research and examination of literature, reading, excerpting, contemplation, applying the mind to the acquisition of knowledge and devoting oneself to it, what the word "study" actually means. Since the studying shifted from paper to electronic devices, many digital tools were developed to support students in that way of autonomous learning, without giving them ready, fabricated knowledge. I will mention only some of them here, drafting roughly their benefits for independent learning. Graphic organizers like story and

persuasion map, timeline star of cluster diagram, sequence and KWL chart are helping students to identify and excerpt the different, most important elements and ideas of the text during the reading. They are used to organize gathered information in a comprehensive way, compare or contrast them and prepare them for writing, learning or presenting. Those tools are equally important for teachers when developing their virtual teaching strategies.

Like teacher in other disciplines teacher in humanities started to use some of numerous, meanwhile very well-known, online communication tools (zoom, MS Teams, BBB, Skype or Google Meet) as well as online whiteboards in order to boost the student's engagement in their virtual classroom. However, for work with the abstract concepts and ideas characteristic for the interpretation of the world of spirit, visual teaching strategies could additionally relay on compiled mind maps, knowledge banks and concept maps helping students to link new knowledge to what they already know. Also, with the help of flowchar-

ts some complex reflexive process can be schematized and demystified, while long notes can be switched with infographics. Diagrams like spider or Venn help to compare and contrast, to clarify without simplifying and to effectively facilitate communication. The list can be extended with document management tools (GSuite, MS office, OneDrive, Dropbox, and Evernote) that help user to maintain, store, organize, and manage all the documents essential to lessons; online video tools like YouTube and loom,

for creating and sharing videos with students or colleagues; online quiz makers and homework platforms as well as chat rooms that allowed easier interaction and discussion participation also for the student that hesitate to speak live etc. All those instruments have not only help us gone through the time of pandemic without losing academic year, but have also changed the ruling mindset in the field of humanistic education and the way humanities see the growing digitalization as well as themselves.

The paradigm shifted. There is no doubt that our lives will stay suffused with digital technologies. Virtual reality allows us to have the experiences of education we want, even if we have to be isolated, quarantined or out of a group. The online teaching experience during the pandemic reminded us of nature of studying humanities as slow, gradual and internalizing, deeply involving process, while uptake on genuinely useful online tools showed us how it can be done in accordance with the demands of the new age. Saving time for learning dates, names and events by heart using effective ways of visualization and presentation makes actually possible what are the humanities are all about: identifying, isolating and describing phenomena of our spiritual reality in order to interpretate them within the relevant context and understand their role in it as well as the context. And on the other side, e encouraging autonomous learning and independent thinking and openness to what is foreign and yet close is exactly what considers the main product of teaching process in humanities. When done properly online courses in humanistic disciplines not only engage students at the same rate as traditional courses do, but help them develop the competences of learning independently without challenging their persistence. Offering a lot of opportunities for interaction with

teacher and other students in a variety of mediums, online form makes it also easier for students to take time to shape their consideration and opinions in the written form, but do not let them to procrastinate forever. Those skills needed for life-long personal and professional success could be the added value to traditional humanistic education.

Online teaching also encouraged teachers to reflect their pedagogical assumptions and practices for all modes of instruction, to be creative and expand their pedagogical approaches. This is the practice that need to be continued in post-virtual era in order to considered how the lessons learned during the online phase and discovered virtual tools can complement traditional teaching to provide a high-quality education.

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Importance of Teachers in HE Reforms: Should Teachers Just Teach or Inspire?

Saša Popović
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The subject of this analysis is the most fluid constituent of the educational process - the inspiring lecturer. The aim of the analysis is, in brief, to examine the notion, context and significance of an inspiring lecturer in higher education reform. This is a lecturer who surpasses the profile of a good instructor-type lecturer, as well as a lecturer capable of motivating others. The challenge is to point out, in an inspiring way, that the educational process needs good lecturers, who are, at the same time, the initiators of its changes.

Nowadays, many of the unresolved problems are inherited from the past, while, at the same time, the new ones appear. The complexity of the problem grows over time and conquers new areas. The education system should be an avenue through which we face these problems open-mindedly (a scientific method) and with a pure heart (the system of values). Searching for solutions to both types of problems implies a dynamic education system which is future-oriented, encourages creative thinking and has a high potential of transformation. Such an education system could make up for the shortcomings of the traditional education system.

The changes relate to the re-examination of traditional teaching methods, the adoption of contemporary didactic methods and technical support to the educational process, change in the relation between a provider and a user of educational services, their common relation to nature, as well as the "cultivation of human beings" in the context of the improvement of their personal and social well-being. The traditional educational model: read-learn-reproduce, based on an untouchable lecturer, non-critical thinking, limited freedom for personality profiling and a rigid model of assessment, has only deepened the gap between itself and the labor market.

According to various projections, the global community will face a growing demand for education. This is certainly a consequence of the world population growth, their longer life expectancy, changes in the structure of people's needs, increased level of emancipation etc. IIASA (International Institute for Applied Systems Analysis)[1], which, in addition to the United Nations, is the most-cited source of population projections, reveals interesting scenarios in the future movement of the world population, according to the level of education (Graph 1).
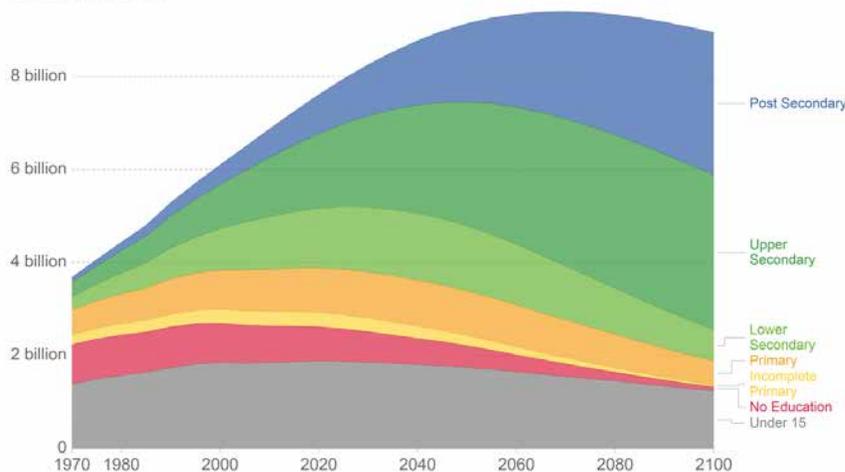
1   International Institute for Applied Systems Analysis (IIASA): https://ourworldindata.org/projections-of-future-education, 25.11.2020

Projected world population by level of education
This visualization shows the Medium projection by the International Institute for Applied Systems Analysis (IIASA). The researchers who created this projection describe it as their "middle of the road scenario that can also be seen as the most likely path".

Our World in Data

Post Secondary

Upper Secondary

Lower Secondary
Primary
Incomplete Primary
No Education
Under 15

Source: Global Projection, Medium SSP2 - IIASA (2016)

OurWorldInData.org/future-population-growth • CC BY

Graph 1. Projected world population by level of education, IIASA (2016)
Source: https://ourworldindata.org/projections-of-future-education

Graph 1 shows that our world will be populated by more and more educated people. The projection shows that the number of poorly-educated people will constantly decline, and that at the end of this century, the overall world population will be educated to some extent. The graph also shows that in 1970, there were about 700 million people in the world who acquired secondary or post-secondary education. It is expected that, at the end of this century, the number of educated people will increase 10-fold, and that there will be about 7 billion educated people.

The right to education has been recognized as part of fundamental human rights[2]. There is a long development path from learning as an existential need, to education as "the most sophisticated social technology of societal change and targeted evolution"[3]. Learning is no longer a matter of safeguarding physical existence, but a lifelong process which, in a formal or informal way, meets the status, intellectual, spiritual needs and other needs of people.

The UN Sustainable Development Agenda 2030 in the system of sustainable development goals (SDG17) recognized the significance of education for the future development of mankind and defined it within SDG4 *Quality Education*[4], whose general goal is "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". Within SDG4, the seven sub-goals have been recognized, of which, for the

purposes of this analysis we emphasize sub-goal 4c, which indicates the need to substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing countries[5].

The world's top higher education institutions (universities, colleges, institutes) have specific visions when it comes to the quality of education. Their common feature is that in their plans and programmes, they have higher expectations of teachers and students, as well as more ambitious educational and research goals, according to changes in the scope and structure of demand for education.

When it comes to supply, the role of teacher in the educational process remains very important, regardless of its changed position in terms of the transition from teacher-centered education to student-centered education. The teacher still gives lectures, i.e., conveys the content of the

2   Article 26 Universal Declaration on Human Rights

3   Global Education Futures Report: Educational Ecosystem for Societal Transformation, published by Global Education Futures 2018, pg. 2

4   https://sdg4education2030.org/the-goal, s Analysis (IIASA): https://ourworldindata.org/projections-of-future-education

5   Target 4.c "By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States."

curriculum, delivers lectures, in order to facilitate the process of understanding the content and applying the lessons learned, and performs an assessment of students (TLA model, TLA - *Teaching, Learning and Assessment*). This formal triangle, i.e., the chain of competencies of a teacher, often dominates the essential thing which I called the *"3i model"*: to awaken in students, the intellectual enthusiasm related to the issues examined, to encourage their readiness for finding solutions to the problems and support their perseverance in applying obtained results.

Systemic quantitative and qualitative determinants of the profile of a lecturer often cannot comprise, measure and reward a rare and an extremely significant aspect of a lecturer - the ability to inspire the audience. Su and Wood[6] (2012) state that great teachers have that extra "something" which they refer to as being immeasurable, whereby "... lists of qualities are inadequate as a method to capture it". The ability of a lecturer, which provides him/her with the highest level of handover of energy and emotions, deep insight into the problem and perception changes, usually remains beyond the norms and is considered a deeply individual trait - charisma.

The etymological analysis of the word inspiration leads us to the root *spiritus* in Latin, which means spirit, so that inspiration could be perceived as spiritualization i.e., a higher level of perception. However, this Latin word has multiple meanings, including *breath, breathing, life*. For example, spirometry is the name for a test used for assessing the capacity and function of lungs. In that sense, inspiration would mean "breathing life using total lung capacity", which leads to the poeticization of this notion. My hypothesis is that the notion of inspiration is more related to this second meaning - breathing, because we say in-spiration (the act of breathing) and not in-spiritation (spiritualization). But let the search for an answer to this semantic hypothesis be an inspiration to some linguistic researcher.

The essence is in the following - the motive drives the will, and the inspiration drives the creativity. We find motives, and inspiration finds us. The words of Renate Lachmann, uttered in a completely different context, fit perfectly into this consideration: "It is about a definition of actions that betray expectations, recall astonishment and operate for unknown reasons.[7]

The inspiring lecture expands the domain of our understanding of reality. Doubting the facts, revealing paradoxes, expanding the context, creating a metaphor, activating emotion, these are some of the effects of an inspiring approach. Picture 1 shows the cognitive aspect of the inspiring approach, which confirms the previously mentioned: it is possible to tell the truth, and at the same time, not reveal the truth.

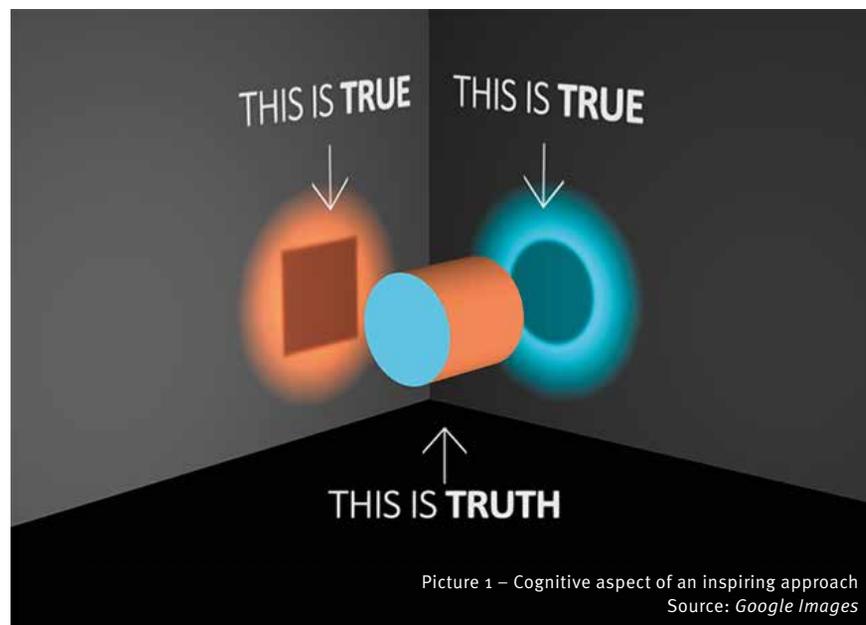Picture 1 – Cognitive aspect of an inspiring approach
Source: *Google Images*

6   Su, F., & Wood, M. (2012). What makes a good university lecturer? Students' perceptions of teaching excellence.
Journal of Applied Research in Higher Education, 4, 142–155.

7   Renate Lachmann (2002). Phantasia - Memoria - Rethorica. Matica hrvatska, Zagreb, str. 31

In addition to the previously mentioned, inspiration is very important for successful unlearning previous mistaken assumptions, notions, processes and conclusions. Unlearning is a very important element of learning. The human being learns and unlearns based on his/her life experience. That is why childhood is a happy misunderstanding of the world. The more the educational and intellectual capacities of the human being mature, the more his/her perception of the known world changes. The human being, without doubt, needs the help of a stimulating education system and a creative cultural code.

However, as is stated in the GEF Report, "we cannot teach people to be empathetic and emotionally intelligent by removing emotion and focusing primarily on cognitive abilities[8]." Both personal and social transformation imply emotion as an integral part of the educational technology, and it belongs to the high level of involvement of a teacher in the educational process. This means that an inspiring lecturer activates spiritual storms in us. He does not convince us (this is the job done by the instructor), he does not stimulate us (this is done by the motivator), but he awakens us (the inspirer).

According to previous statements, I would like to suggest the following gradation of levels of involvement of a teacher into the educational process:

8   see the footnote 3), page 16

Picture 2 - Hierarchical levels of involvement of a teacher in the educational process
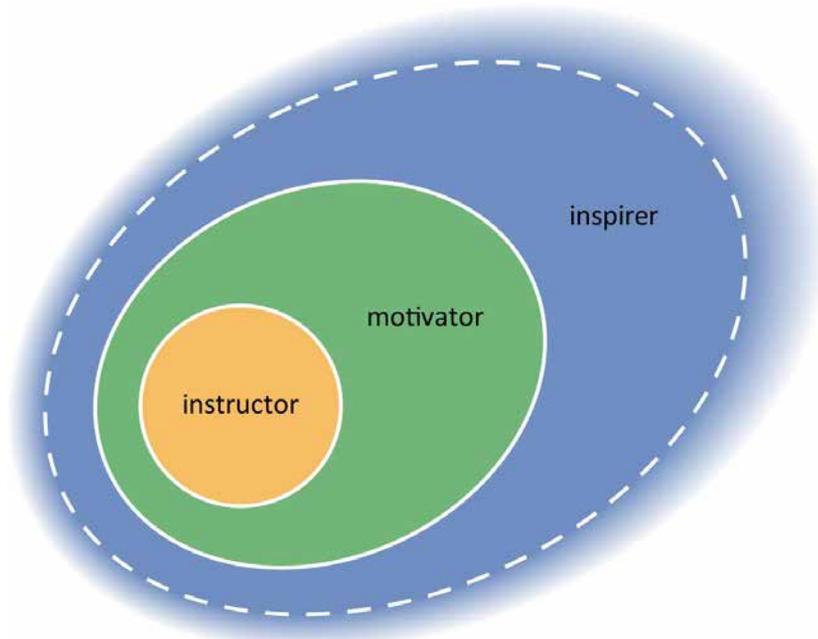
> basic level - *instructor*: the teacher is a guide to the curriculum; supports the learning process; reproducing knowledge and searching for reproduction of knowledge; his/her participation is mostly monologic;

> high level – ***motivator***: the teacher motivates the students to learn and resolve complex problems; expands the basis of scientific sources; initiates teacher-student dialogue; argues the significance of learning; uses assistive technology devices aiming at visualizing the issues examined; argues the significance of learning and its utilitarianism;

> higher level – ***inspirer***: teacher gives lectures and unlearns the lessons le-

arned; presents different perceptions of the studied phenomena; reveals the inner potentials of students and helps them use them for personal and social growth and prosperity; encourages a dialogue between students; enriches knowledge with imagination and develops creativity

> In order to point out the conditionality of these three levels, we will present them using the following graph:

The graph 2 refers to the conclusion that each level of involvement of a teacher in the educational process includes the other levels too. Thus, an inspiring teacher must satisfy all three levels - he/she must possess a good scientific basis for the talent for knowledge transfer

(the basic level), needs to have the capability of discovering motives - external factors which stimulate learning (high level) and the power to change existing notions of the issues examined (higher level). At the highest level, knowledge and imagination merge and we get creation. Creation reveals the inner potentials of students and activates their transformation. Bearing in mind that higher level of involvement of a teacher implies his/her exceptional capability of abstraction, transcendence and spiritualism, by which the deconstruction of familiar knowledge and the construction of new knowledge are done, the last level is marked with a dashed line, in order to alleviate the impression of limitation, when marked with solid lines.

This type of gradation may lead to the conclusion that an inspiring lecturer is primarily focused on revealing new knowledge. However, this is rather the person who helps us cultivate the knowledge. In both the known and the unknown, a new thing can be discovered. "The reader should be surprised by the familiar", Ivo Andrić said.

If the education is more than learning, it should not make education institutions look like penal institutions, where fear of ignorance represents the basis of a teacher's authority. Ignorance is a natural state and a research challenge.

You should be brave and love your ignorance because it represents a room to demonstrate a passion for research and self-affirmation? One brave and brilliant thinker went that far in this reflection and he said, "Now I know I don't know anything!".

Various technical possibilities which provide support to the contemporary educational process (web presentation, video lecture, software support) can significantly contribute to transferring a higher level of inspirational effects of a lecturer to students. Still, it all depends on his/her charisma. A person who uses computer slides to transfer a text from the book to the projector canvas makes two mistakes: encourages the unattractiveness of a book (learning from slides) and degrades the enormous power of visual aid.

Finally, a good auditorium inspires an inspiring lecturer. A good auditorium hints at a good lecture. But I do not consider a good auditorium a meeting of academics who know all the answers to the questions. It is rather the auditorium which is ready to discuss, to ask, to doubt, to show a different perception of a certain problem. In that way, a lecturer and students really become co-pilots of a continuous flight of research and knowledge. Because there is nothing more inspiring than a deeper knowledge of the nature of the world. It means that, by the nature of our being, we long to find out more about the wonder of the world. Wonder is, in fact, revealing the undiscovered but also the familiar, in its unlimited contingency.

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Practical-based Teaching and Learning in MNE HEIs – are our Graduates Ready to Correspond to Labor Market Practical Skills Required?

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Even the small countries like Montenegro face the global trend in labor market development of needs. The labor market elsewhere becomes a highly competitive environment especially for newcomers „ fresh graduates ". Despite the fact that they have good educational background it is difficult for them to find the job and meet the requirements of employers. The period between diplomas and the first employee positions varies from 2-r months in developed economies till 7 months in average in less developed once. In Montenegro this period can be measured in years.

The idea of adapting teaching and learning in HEIs in Montenegro is not new but still it seems that all the efforts done have not met the principal goal yet.

The educational policies in HE have targeted the need of early practical-based learning through the legislation and the obligation of at least 25% of curricula in the first level of studies devoted to the practical trainings of students.

But is it just up to the HE providers to resolve this problem in Montenegro or it has to be agenda of wider social dialogue?

We cannot say that we have a strong and wide cooperation between universities and business with the modest exception in ICT. Companies still do not come to the universities to ask for the problem's solution neither universities are proacting in offering of their expertise. As long as no cooperation exists between university and business sector no one could say for sure what the young graduates should know in order to find a job. We constantly face the discrepancy between what the HE providers think on one side and what graduates and employers discover once the apprenticeship begins.

It is obvious that the first step to be taken is to detect the skills shotage and adapt the curricula accordingly. In the same time this is the very start of all the problems in Montenegro. Employers seems not to be aware that the HE cannot deliver the "full package" in three years while HEIs are still hidden beside their exclusive role of educators without any idea and need to care about labor market needs.

Many surveys have been conducted among the employers and they show that the genrally cherished skills are: team working and communication skills, computer skills, adaptability, foreign language skills, some soft skills

The role of universities is important in shaping today the jobs that students will have tomorrow which means taking care not only about the aforementioned general skills but specific skills for the profession by customizing curricula to address practical issues, creating specific skills that employers are looking for through a bigger part of practical training within the whole curricula.

In the last accreditation process in 2017 completely reformed and restructured HE in Montenegro (forced by newly adopted legislation also) has adopted a "matching skills" approach through the practical–based teaching and learning as "must have" in all the curricula: starting from engineering and medicine to the social sciences and humanities.

But what we have three years later is the mix of understanding of practical teaching and learning among the scientific fields. There is the different understanding of the fact that in practical-based training we have to combine theory and work experience as the strategy of HE. Some institutions try to create reflective process throughout the duration of learning with the goal to create a self-sufficient professional who has the capacity to develop. In some institution's curricula are created upon the real placement of students in the certain duration.

Some surveys show that the practice-based learning and teaching approach in Montenegro varies from institution to institution. Some have adopted the approach where learning methodologies are integrated, lectures are complemented by problem-based active sessions. We also have thought about the optimization of tutorials, practical sessions, and simulations.

University of Montenegro has made strengthened curricula by inclusion of interdisciplinary expertise (the possibility of the choice of totally different subject from another scientific field) as well as elective subject.

Still, here we have to be self-critical. The primary idea of modularization of curricula which could give the possibility of tailored-made curricula and elective modules and highly percent of elective courses. Due to the lack of personnel, funds and infrastructure this idea has been compromised and its performance now is deep bellow the first idea. The possibility that remains is still the reconstruction of syllabus and innovative personal approach of teachers to the problem of practical-based teaching. Many of the institutions especially in the field of engineering and medical field have improved the infrastructure and access to state-of-the-art labs. Collectively this could ensure that we receive the higher quality of education in fundamental engineering fields and medicine (connected with the lab research).

Placements are the second choice. Apprenticeships and the provision of workplace training (which is typical for some engineering curricula in Montenegro in duration of 3-6 months) can help young people to gain useful work-related skills and to overpass a typical first shock of working environment. These placements also use as the good opportunity for employers to get familiar with the skill shortage and the students themselves before the real employment. Some of the HEIs in Montenegro offer this opportunity of regulated placement to the students. The placement is highly regulated by the vice deans, faculties have regular triple contracts (student-employer-faculty) and students are followed by both academic and business mentors). The result of the placement should be the report about the technological process, solution of the concrete problems, gaining of the administrative skills etc.

Other method that also exist in the field of low in Montenegro is the widely adopted method of simulation. At the hearth of the curriculum design we integrate technology and multimedia in the simulation of real circumstances (court room). This ensures that the theory and face-to-face instructions in simulated environment contribute seamlessly to each student's learning process.

Yet the notion that employees new to the workplace will have all the job skills required over the course of their careers is unrealistic. Employers need to have stronger involvement in and ownership of skills, given the importance of helping workers develop and maintain their skills by fully utilizing them

Moreover, employers must offer learning and capacity building opportunities by themselves and ensure that their employment strategies efficiently select and attract the best students. Promotion of continuous training (which is not typical for Montenegro) leads to positive spillover effects on the competitiveness value chain.

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Prof. Mira Vukčević (Ph.D in technical sciences/material science) has a long experience in higher education (about 30 years). Actually she occupies the position of full professor and dean at the Faculty of Metallurgy and Chemical technology. During her academic career she occupied also the position of vice dean and vice rector. She was also the president of the National council for the scientific-research activities, member of National Council for qualifications and the National group for preparation as well as referencing of NQF. She is also the president of national HERE team. Her main research field is powder metallurgy and inorganic polymers as well as composite structures. She has published or presented more than 80 papers in the field of powder metallurgy, composites with metallic matrix, biomaterials, geopolymers

How to Facilitate the Transition from the World of Education to the World of Labour Market of Higher Education Graduates

Professional Training Programme for Persons with Acquired Higher Education

Mubera Kurpejović
Ministry of Education

In order to better respond to the needs of the labour market, as well as to further improve practical knowledge and skills, the Government of Montenegro in 2012 adopted the Law on Vocational Training of Persons with Acquired Higher Education.

According to the Law, the Programme allows for persons with acquired higher education, which are on the records of the Employment Bureau, to acquire knowledge, skills and competencies for independent work, during the nine-month professional training with the chosen employer, in accordance with a specific programme. For that period, higher education graduates, i.e. beneficiaries of the Programme, receive a monthly compensation in the amount of 50% of the average net salary for the previous year. These nine months are recognized as 12 months of work experience and as a condition for taking the state ie. professional exam.

One of the good sides of the Programme, which is on the agenda of further digitalization of the system, is the electronic registration of both users and employers through the eUprava.me portal, where detailed instructions can be found. Several institutions are involved in the implementation of this Programme, including the company that prepared the software (Ministry of Public Administration, Employment Bureau, Human Resources Administration, Ministry of Education and higher education institutions themselves).

Heaving in mind the positive effects that the Programme has had during the previous cycle, its implementation continued in 2020/2021. The research has shown that the Programme contributes to the implementation of the key goal which concerns the support for higher education graduates in their transition from the world of learning to the world of work, and the increase of youth employability. For the last eight years over 25 000 higher education graduates were given the opportunity to professionaly develop, and the analyses show that every year around 50% of beneficiaries continue their work engagement with the same or other employer.

From year to year the interest of employers for participation in this programme increases.

In addition to enabling higher education graduates to gain relevant work experience, the Program provides employers in the public and private sectors with the opportunity to identify the needs for particular staff, appropriate to their specific activity, and to hire them upon completion of professional training.

The programme also has impact on the creation of enrollment policy in higher education institutions through the feedback we receive from employers about their needs.

Mubera Kurpejović (1982 Rožaje, Montenegro) is Deputy Minister and Director-General of the Directorate for Higher Education in Montenegrin Ministry of Education, Science, Culture and Sport. She graduated from Faculty of Law at University of Montenegro and won some important prizes during her study. Until 2006 works for Ministry of Education. Until 2010 Deputy Minister. She is also the President of Commission for Qualifications, Member of Higher Education Board, Board for Join and Stabilization and Commission for European Integration. She took part in numerous projects financed by European fonds and World Bank. She speaks English and Russian.

What did Goethe not See? Or the Education and the Role of an Artist in Contemporary Society

Nikola Latković
University Mediterranean

*I*n the beginning, there was a word, which was certainly witnessed by a typographer* – the Czech typographer František Štorm jokingly explains the role of art in the development of civilization. This objectively controversial statement, or let us say fiction, still contains what is called in any good movie the psychological truth. Let us consider a few civilization shifts, which will illustrate the role of artists in the development more objectively than Mr. Štorm. And finally, let us ask ourselves in this very moment in order to see the challenges placed before an artist and a human being.

Our Eurocentric view of the world and the identification of the development of the civilization with the development of the Mediterranean have its shortcomings, because it often ignores the imported heritage from the Far East, and later, from the New World. Still, in all the mentioned districts, civilizations emerged in relatively the same period and on very similar, almost identical principles of, at first, agricultural, and then, of every other "industry". So let us still stay in the confines of the Mediterranean.

And what happened in that Mediterranean? *"Logos"* happened. And as it usually happens with reflections in the highest abstract spheres, it is difficult to break through the initial sphere of origin, and not to find the so-called God. If we consider the *"logos"* the starting point of the development of mind, abilities and feelings in human beings, we adhere to determinism, otherwise we adhere to the evolution from which the *"logos"* originates, and in that way, we spin around the hen and the egg.

Still, at least six millennia of written history of the Mediterranean left us enough remnants of material and non-material culture, in order to more easily adhere to evolutionism, which originates from a series of historically more and more dense coincidences. The theory of evolution suggests that life of every individual, from conception to birth, is nothing else but accelerated evolution of the species to which that individual belongs to (individuals appear as shapeless unicellular embryos on which phases of multicellular "colonies" till organisms with three distinctive basic tissues, from which systems of organs and finally, among them, its majesty the backbone, are singled out). Therefore, *the ontogenesis of an individual is the accelerated phylogenesis of the species*, the evolution says.

FInally, the individual is born, which is the beginning of another revolution – the cultural one. Unlike animal cubs, "human cub" has a much richer ontogenesis, although at first stages, it does not differ much from a disoriented kitten, puppy, chick… Encouraged by the environment which is a reflection of a millennial phylogeny, it quickly transfers from communication by inarticulate sounds and movements to cultivated

intercourse with the surrounding world – it adopts articulate language, behavior and all those material and non-material heritage of civilization, in just one word – *culture*.

Nowadays, "human cubs", have far more to do with the cultural ontogenesis than those "cubs" born before Gutenberg, James Watt, Tesla, Edison… They are born in an increasingly cultivated and stressful environment, whose achievments should be reached till adulthood, when they are expected to mature for a higher education institution which should teach them how to move heigher that lath of chosen field for their successors.

Nowadays, we at HEIs accept "cubs" who were born into the world whose technologicalization has moved the cognitive and psychomotor sphere of human life to the digital machine, by which the mental capacities were set free for the emotional sphere of life. If we consider the simplified premise that the starting point that in the development of an artist this third (affective) sphere dominates over the other two, we can conclude that,

in the near future, we can expect:

› increasing interest of new generations in so-called arts

› declining interest of new generations in so-called natural sciences

› infiltration of principles of so-called art education to the sphere of so-called sciences

› migration of forms of learning from lower levels to higher levels of formal education

It seems that increasing reliance on the machine will lead a human being to the novelties which are more fundamental than the listed ones. South Korea, the country with the highest level of technologicalization in the world, has already introduced a coded medical diagnosis "digital dementia" into the health system. On the other hand, research on Ukrainian youth, has shown a steep decline of
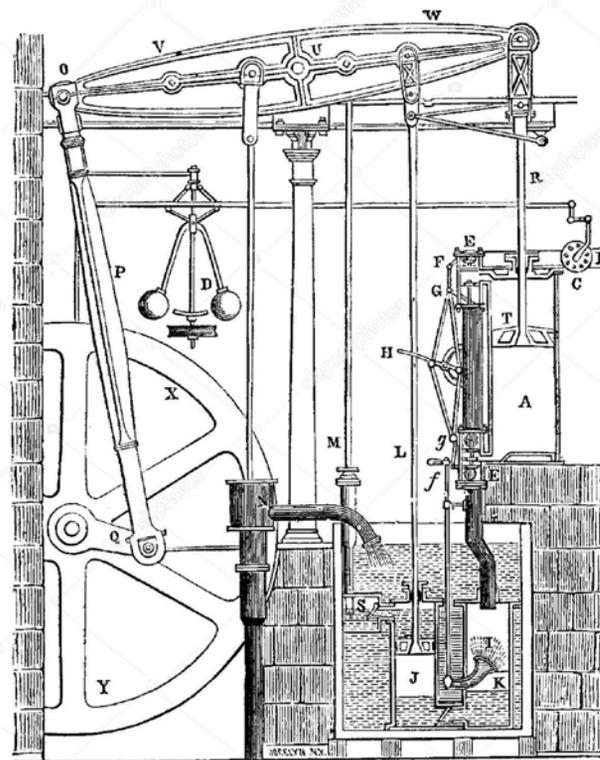
Steam Engine, invented by James Watt, engraved illustration (depositphotos.com/Morphart)

interest in sex. And the current situation related to the COVID-19 pandemic, according to statements of teachers of the American Institute of Graphic Arts (AIGA), has provoked an increase of mental disorders in students of arts.

Mark Twain says that history does not repeat itself, but it perfectly rhymes. Today's moment "perfectly rhymes" with globalization which can be read from the dawn of civilization, from the very beginning of this debate. True, that primal proto-globalization was a natural and spontaneous process among isolated cultural cores, stretching back two *millennia*.

Today's globalization was sown with the industrial revolution two *centuries* ago, and catalyzed by digitalization more than two *decades* ago. The Far East, the Mediterranean, and the New World create an indivisible society for *a year*. The pandemic, with all its uncertainties, has proven to be a global binder, more effective than all other binders so far.

At the end of the XVIII century, two decades after the steam machine patent, Goethe predicted that *we*, I paraphrase, *would have a great factory of images, in which every piece would be reproduced indistinguishable from the original work, and by completely mechanized processes, managed by children, and if that should happen, the eyes of ordinary herd would be deceived, and artists would be deprived of the source of support and an opportunity to become better*. This reflection of Goethe turned out to be a surprisingly accurate prophecy. However, Goethe did not take into account technological development which, nowadays, has brought a self-replicating "intelligent" machine, which, in spite of a number of benefits, through its expansion, actually *degrades knowledge, skills* and *competences* of a human being.

Nowadays, it seems that Goethe's prophecy can be applied beyond the fields of art. Goethe's prophecy concerns every human activity. Today, absolutely every profession depends on a digital machine i.e., various experts use the same global (universal) tool – a computer. It is true that computers are *machines managed even by children*, but children lack focus and guidance from us, "adult" ones.

The role of school is constantly growing. The average education needed for a smooth existence in society is constantly growing. The formal schooling has got a never stronger competitor in free online media, whether we want to admit it or not. Today's "human cubs" are enabled to resolve virtually every dilemma in just a second, by 2 or 3 clicks on the internet. Yet, these 2–3 reflexive i.e., uncritical clicks, lead to delusion, very often. Therefore, *formal* schooling will still remain a crucial basis of education, but it must reconsider its *form*. The ultimate learning outcomes is "learning how to learn". This neat phrase appears at higher education institutions, but today it actually belongs to the beginnings of the formal education of "human cubs". If they don't learn that in a primary school, if they don't validate that in a high school, higher education institutions cannot teach them that. It is too late then.

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The New Dimension Of Studing Law In Montenegro
Legal Clinics in the Service of Vulnerable Groups: Improving the Employability of Law Students through Practical Education (ENEMLOS)

Aneta Spaić
University of Montenegro

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Introduction

After the completion of the project *Curricula refreshment, boosting of international cooperation and improving human, technical and library resources* (CABUFAL), the sustainability and continuation of Europeanisation and strengthening of the curriculum of the Law School has been ensured through the project approved by EACEA in 2019: Legal Clinics in Service of Vulnerable Groups: Enhancing the Employability of Law Students through Practical Education (ENEMLOS), supported under the Erasmus+ Capacity Building Program in Higher Education. This project has been envisaged as the credible step forward in the quality of practical training offered to students of the Faculty of Law. This is one of the largest projects of the Faculty of Law of the UoM.

The relevance of the ENEMLOS and its impacts on legal education

The clinical legal education has been inaugurated in 2000 at Law School University of Montenegro. Throughout the years, a number of endeavors to integrate clinical legal education into the FoL UoM curricula have been made. However, none of these endeavors were actually aiming at establishing legal clinics that would provide assistance to live clients. Accordingly, both previous and currently existing models of clinical legal education were reduced to simulation of work with live clients and analysis of cases both with the academic staff and guest lecturers (local legal practitioners). This project has set clinical legal education at the FoL UoM to entirely new, different level. It involves not only small groups of students, professors and legal practitioners but an indefinite number of Montenegrin citizens - non-professionals. This is envisaged as the indispensable new value that makes it visible and locally and nationwide important. Thus, the ENEMLOS will be beneficial not only to the Faculty of Law of the UoM but to the Montenegrin state and society, having in mind the circumstance that it is the only state law school in Montenegro as well as a law school with a largest number of law students in Montenegro. The project allows academic staff and other educators to acquire new competences, which systematically be transferred to students and will have positive impact on their studying and employability after graduation. Knowledge of law itself is essential to the practice of law but practical skills are particularly important, so the new legal clinics program will contribute to students' practical capacities. By the ENEMLOS, students will now be given an excellent opportunity to obtain practical skills necessary for their future professional

development and advancement. This will have a branching effect on all legal professions in Montenegro, which will benefit from new knowledge that young lawyers will bring to their profession. One of the most important benefits of the project is the access to legal advice and information of poor and socially disadvantaged groups of society that do not have sufficient financial means and cannot get information in any other way simply because they cannot afford a lawyer. Namely, there is a strong need in Montenegro for this type of legal aid since the existing social situation leaves many persons without sufficient financial capacity in order to obtain professional legal advice and representation. On which will have a long-term impact on the legal education in Montenegro.

Partners of the Law School in the ENEMLOS

The ENEMLOS has projected rather big number of the academic and non - academic partners. Although aware of the difficult the project includes three eminent higher education institutions that successfully deal with clinical legal education, especially working with real clients, namely: The Faculty of Law of the University of Zagreb, the Regents University of London as well as the Polish Legal Clinics Foundation. These institutions will provide the best education and practice in the field of clinical legal

education presented in EU countries as well as UK. The final result will be the combination of the clinical education of the Commonwealth countries such as UK and some of the oldest legal clinics in continental Europe like Poland as well as Croatia as a country that is historically and legally very close to Montenegro but already has a developed legal clinical education. The Faculty of Law of the University of Montenegro is implementing this project together with the academic partners from Kosovo and non-academic institutions from Montenegro and Kosovo. Exceptional cooperation with the Erasmus Program Office in Montenegro for the purpose of logistics during the project has been established.

ENEMLOS ongoing activities

When it comes to the implementation of the project, the first of the three-year project implementation is currently underway. The preparation activities were successfully realized following the envisaged timing. Preparatory measures regarding the analysis on the clinical legal education in Montenegro and Kosovo have all been implemented and presented during the kick-off meeting held in Budva in February 2020. The project dissemination activities have been successfully conducted - the project identity has been developed via design and exposure of the project as well as its website. Within

the Erasmus+ Info Days in Montenegro the Faculty of Law of the UoM organized the promotion of the project through the production of a brochure that was distributed to students, teachers and partners participating in the project. Therefore, the planned preparatory activities have been successfully done.

In addition, the training activities have been realized online with great success, in order not to cause major project delays. Namely, in the period from 7th to 9th December 2020, an online training performed by the Faculty of Law in Zagreb was held through the ZOOM platform, with the participation of several relevant lecturers and students from Zagreb involved in clinical legal education. A large number of teaching staff from the Faculty of Law, representatives of non-academic partners from Montenegro and students of the Faculty of Law attended this three-day training. More succinctly, over 60 professors, judges, lawyers, notaries, judicial officers, prosecutors, mediators and students attended the training. This was the opportunity to hear and learn about the experience of the Faculty of Law in Zagreb, whose lecturers made a great effort to extensively share all their experiences and discuss all the relevant issues with Montenegrin participants. The training was successful and significantly contributed to the education of future mentors who will run the clinics.

The training took place online also from 14th to 16th December 2020 for Kosovo academic and non-academic project partners. The procurement of the equipment is planned to be purchased and installed. The library will be enriched with the latest literature in the field of EU law. With all above stated, it is to conclude that the project activities envisaged for the first year have been successfully implemented regardless of the current emergency situation.

Further steps towards the full implementation of ENEMLOS

The occurrence of the COVID -19 has postponed the project activities within the *Development of the project* phase scheduled for the first year. Some of the project implementation such as study visits to the project partner countries are on hold, as the COVID-19 circumstances hinder their realization. Therefore, the study visits planned to take place in Zagreb, London and Poland, must be on put on hold, prolongated and realized once conditions are met, depending on the pandemic situation.

In the future time period, the envisaged activities are to be rescheduled. The consortium will request, group will require, from the EACEA, approval for the prolongation of the project for one extra year, so that the final year of the project will be 2022.

The aims envisaged within the project description, however, will remain and the Law School with all its partners – academic and non-academic ones, will invest all efforts to fulfil the following: modernization and streamlining of the existing teaching practice, enhancement of the overall capacity of the Law School, the quality legal education based on best European practices in clinical legal education, establishment of the new mechanisms of cooperation, interlinking of the higher education institutions, ensuing the strong incentive for the higher education institutions, establishment of the long-term sustainable cooperation with judiciary, National Prosecutor's office and number of professional associations, enabling students to gain practical knowledge through practical experience, ensuring the practical educational component, gaining new legal skills, valuable experience and knowledge to students, preparing them for the legal market, exposing them to the future employers from all legal professionals, enhancing employability of the law students after the completion of the legal education, enabling the wider community – specially vulnerable clients to protect their rights through legal aid *pro bono*, generating the change in the society through the offer of legal clinics, facilitating the identification of the candidates for the international moot court competitions in the field of Commercial and international law.

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The Significance of the Faculty of Law on the EU Integration Path of Montenegro

Aneta Spaić
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Introduction

The Law School of the University of Montenegro is the first and only state law school in Montenegro. For almost half a century, the Law School has been recognized as the provider of the quality legal education and the generator of the in the most eminent lawyers in the country. Throughout the time it has been successfully confirming its unequivocal commitment to the quality of the teaching process and the establishment of fundamental values of the legal system. Since the October 15, 2007 when the Stabilization and Association Agreement was signed between the European Communities and their Member States, and Montenegro, legal, political and economic development of Montenegro has been envisaged, in accordance with the principles of the rule of law, human and civic freedoms, and economic freedoms in Montenegro. Along with the state politics, the Law School has proven its strategic commitment to the EU integration path, as a path without an alternative in the mosaic of global community integration, with its role of helmsman in terms of improving the scientific environment and refining the European perspecti-

ve of Montenegro. This is especially confirmed by the activities undertaken aiming at strengthening the international visibility by harmonizing the platform of work priorities with modern requirements of internationalization. With energetic adaptability, the Faculty readily responded to the challenges posed by the COVID-19 pandemic. It stayed consistent in the ensuing the quality of its pedagogical vocation and strong profiling with integrative processes. As a generator of reform processes, the Faculty has achieved in this turbulent social and period not only a positive continuity, but a noticeable dynamization of project activities.

The role and the impact of the *Capacity Building of the Faculty of Law, University of Montenegro – curricula refreshment, boosting of international cooperation and improving human, technical and library resources* (CABUFAL)

The first tremendously significant step towards the europeanization of the Law school University of Montenegro is related to the project *"Capacity Building of the Faculty of Law, University of Montenegro – curricula refreshment, boosting of international cooperation and improving human, technical and library resources"* – CABUFAL. The project has been determined as the has established a stable framework for long-term institutional and academic international cooperation. In this way, the novel program orientation strengthened the potential for conquering new scientific research spaces and gave impetus to continuous work on improving the curriculum. By focusing on mobility, the competencies, competitiveness and multicultural awareness of students have been raised

while approaching the needs of the EU market. Thanks to the valuable experiences of eminent partners: the European Institute of the Saarland University, Regent's University London, Faculty of Law in Skopje, Universities of Ljubljana, Zagreb and Split, the Faculty of Law received an innovative institutional design through curriculum modernization and Europeanization. Through this project, the overall technical capacities of the Faculty of Law of the University of Montenegro have been modernized through the purchase of new computer equipment, enrichment of the library fund with printed publications on EU law and access to prestigious databases of scientific literature (EBSCO, HeinOnline). Increased availability of literature is of paramount importance for the research activity of the teaching staff, which reflects the growth in the number of published papers in international journals indexed in leading databases. In addition, significant benefits in the project were achieved by other reference institutions in Montenegro - the Judicial Council and the Training Centre in the Judiciary and State Prosecutor's Office - through improving the quality of their educational capacity and harmonization with current European trends. In that way, the realization of the project fulfilled the expectations of all actors and made them important factors in the EU integration process.

Continuation of the Europeanization via Legal Clinics in Service of Vulnerable Groups: Enhancing the Employability of Law Students through Practical Education (ENEMLOS)

A credible step forward in the quality of practical training offered to students of the Faculty of Law was provided through a large international project *"Legal Clinics in Service of Vulnerable Groups: Enhancing the Employability of Law Students through Practical Education"* (ENEMLOS) which was launched in 2019 with the support of Erasmus+ programme for capacity building in the field of higher education. Under the mentorship of European institutions with representative results in the field of clinical law education (Faculty of Law of the University of Zagreb, Regent's University London and University Centre for Legal Clinics in Warsaw), it is expected that the Faculty of Law will achieve key project goals: innovation of teaching practice through the development of practical skills, increased cooperation with other project participants, establishment of platforms for exchange of mutual experiences, stimulation of interests of their students, profiling according to the needs of the labour market, as well as affirmation of philanthropy and wider social responsibility - by helping vulnerable categories to protect their rights by providing free

legal advice. Bearing in mind that the Judicial Reform Strategy 2019-2022 and the Action Plan for its implementation 2019-2020, within the *Strategic goal 4: Strengthening accessibility, transparency and public trust in the judiciary*, envisages the improvement of the free legal aid system, there is a well-founded ambition that the clinics of Law faculties in the foreseeable future are legally authorized as providers of free legal aid. Experiences in this field were presented at a recent training, conducted by professors and students of the Faculty of Law in Zagreb, thanks to which the teaching staff of the Faculty in Podgorica gained insight into various modalities of clinical education that can be included in their curricula.

Further fostering Europeanization via tinnier, relevant and vital projects - Jean Monnet the Law of the EU Internal Market, Possibilities and justification of introducing a system of undisguised liability in the health system of Slovenia and Montenegro - Comparative legal analysis, Legal responsibility in relation to the environment - preventive and curative measures in light of environmental and energy legislation

The Europeanization of the curriculum of the Law School has been set as the main goal of the CABUFAL project. It has further been confirmed by EACEA, with

the approval and recognition of the ENE-MLOS for the future development of the Law School. The last and final strong impetus to the development of the Faculty was sent by the Education, Audiovisual and Culture Executive Agency of the European Commission with the approval of the *Jean Monnet Module* project in the Law of the EU Internal Market. Thus, the Faculty of Law has joined the club of prestigious faculties in Europe, North America and Asia, which are users of this globally recognized platform for support of academic excellence, communication on European issues, innovation and exchange of experiences. The implementation of this project will last until 2023 and will additionally emphasize the efforts of the Faculty of Law towards building its European identity. The target group of this project are master's students with outstanding results in their studies that make them competent for leading roles in the process of harmonization with the *Acquis Communautaire*. In addition to teaching activities in terms of students acquiring professional skills, the project also includes scientific research and journalistic activities of academic staff, as well as organizing guest lectures and panel discussions on various topics of importance for the EU internal market.

In addition, the Ministry of Science of Montenegro and the Public Agency for Research of the Republic of Slovenia

approved to the Faculty of Law in 2020 the following projects: *"Possibilities and justification of introducing a system of undisguised liability in the health system of Slovenia and Montenegro - comparative legal analysis"* or »*No -fault*« system of responsibility in the health system, which will be implemented by professors and researchers from the Faculty of Law of the University of Montenegro and the Faculty of Law in Maribor, as well as the project of the Faculty of Law of the University of Montenegro *"Legal responsibility in relation to the environment - preventive and curative measures in light of environmental and energy legislation"*. With this project, the Faculty of Law will contribute to raising awareness of the importance of climate change, as the greatest threat to global development, as confirmed by the latest Global Risk Report of the World Economic Forum (WEF). In addition, special attention will be paid to the analysis of the regulatory framework of the energy system, primarily having in mind the expressed determination of the EU in its mission to transition from the use of fossil fuels to low carbon economy and achieving climate neutrality by 2050.

Strengthening the European values in cooperation with the International Residual Mechanism for Criminal Tribunals – Interuniversity Cooperation Program and European

Programme for Human Rights Education for Legal Professionals (HELP)

Diverse project activity which has been initiated with the CABUFAL activity, has been further enriched with the special incentives for the development of intellectual skills, creativity and original argumentation of its students through prize competitions for the best essays on current topics. On the occasion of the Student's day, a competition was held on the topic *"Freedom of expression vs. political correctness"* where students problematized the issue of freedom of expression in modern society, the process of its realization, as a projection of prospects for the development of political correctness. In cooperation with the *"International Residual Mechanism for Criminal Tribunals - Interuniversity Cooperation Program"*, the Faculty also announced a competition for the best student essays on the topic *"Challenges of human rights protection in the context of the COVID-19 pandemic"*. In this way, students' critical thinking is provoked regarding the perception of challenges in achieving human rights protection in the crisis caused by the COVID-19 pandemic, analyzing cases of identified and potential human rights violations, especially personal data protection (as an element of privacy), and legitimate aspects of restrictions or temporary suspensions

of certain human rights, with special emphasis on preserving the values of a democratic society. In addition, the cooperation of the Faculty of Law with the International Residual Mechanism for Criminal Tribunals was implemented through two cycles of inter-university lectures through which students had the opportunity to listen to the most prominent experts in this field.

In addition to it, the constant strengthening of the quality of the teaching process and the development of international cooperation, the Faculty of Law also shows a special sensibility towards the extracurricular activities of its students, with which they can additionally enrich their work biography. Accordingly, the Faculty regularly motivates its students to attend courses and trainings under the auspices of credible international organizations. A glaring example is the e-learning platform of the European Programme for Human Rights Education for Legal Professionals (HELP) for training in human rights, methodology and key concepts of the European Convention on Human Rights with a focus on various areas of Council of Europe activity. The Faculty of Law expressed its recognition of the quality of this initiative by inviting its students to expand their knowledge through a set of high-quality and customized content of the HELP program in the field of: key concepts of the ECHR; practice and enforcement of ECtHR judgments; anti-discrimination; alternative measures of detention; bio-ethics; anti-trafficking, data protection and privacy rights; combating racism, xenophobia, homophobia and transphobia; procedural measures of protection in criminal proceedings and the rights of victims; labour law; family law; freedom of expression; hate speech; international cooperation in criminal matters and a number of other topics of importance for the education of current and future legal professionals.

Instead of Conclusion

The Law School has successfully confirmed its consistency in the role of the scientific pivot and pillar on the EU integration path of Montenegro. It's devotion has been proved and seen as ready to respond to all challenges at a time when the world is facing the pandemic crisis which has rather hindered the ordinary functioning of the whole worlds. Further strengthening the quality of the teaching process, innovative scientific research, establishing bridges of international cooperation and intensive activities in the field of internationalization will remain the basic postulates of the Law School and it will provide a legitimate basis for its further positioning and recognition on the European educational and scientific map.

Aneta Spaić is full professor at the Faculty of Law, University of Montenegro. After her bachelor's degree in law in Montenegro, she pursued her Masters in Law at Kyushu University (Fukuoka, Japan) as a scholar of the Japanese Government. In 2004 she was elected for a teaching assistant and worked as the Administrative assistant in Center for human rights. About the same time she became a laureate of the Montenegrin Academy of Science and Art. In 2009, she obtained her Ph.D. from the Law Faculty of University of Montenegro in Podgorica. Since 2014 she is a member of Global Young Academy. She experienced teaching law in law schools and undergraduate forums, having taught International Business Law at Washington and Lee Law School, Lexington, VA. She is the author of a monograph entitled "Legal Aspects of Mitigating Risks in Project Finance" and co-author of several monographs and writer of significant number of articles in the scientific, professional international and national journals. Her areas of interest are: International Business Law, International Contract Law, International Commercial Arbitration, Media Law, EU Law.

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Digital Entrepreneurial Nest and Industry 4.0 in Montenegro

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Abstract

In order to stay competitive on global level, Europe must move faster and more decisively to digitize its industry. Digital innovations must be embedded in and embraced by companies of all types, sizes and capabilities, and across all industry sectors and regions of Europe. This has to be done sensitively, in a way that addresses the many and varying needs of businesses across the innovation spectrum. Access to highly skilled workers, including through up-skilling and re-skilling of the existing workforce, will be key. And much more has to be done to capitalize on the many existing digitization initiatives already underway at regional, national and European levels, including within industry.

The 4th industrial revolution is unfolding worldwide, opening up new horizons driven by new-generation digital technologies. The digital revolution brings opportunities for big and small companies across Europe, but many of them, especially SMEs, still find it difficult to make the most out of it. This change of paradigm has a profound impact in economies and societies, transforming products, processes and business models in every industry, and thus, every region needs responds to the specific needs of their industry to go digital.

In this paper we present key ideas, goals and objectives of new Erasmus+ CBHE project Digital Entrepreneurial Nest and Industry 4.0 in Montenegro. The EU counties are at much higher level of development and already established cooperation models between HEIs and industry sector. Therefore, for Montenegro it is of crucial importance to make comprehensive overview and understanding of EU practices, analyze existing situation at national level and develop best-suiting approach.

Keywords: Industry 4.0, Digital skills, Digital Entrepreneurial Nest, EU standards.

1. Introduction

Higher Education Institutions and research centers have a key leading role in process of digitization of industries, strengthening cooperation with national economies, providing expert knowledge and support to their local industries, as well as helping them to cooperate with innovators, investors and customers all across Europe and globally. There is no unique framework for implementation of digitization of industries, and thus the modernization of HEIs to meet assigned leading role in the process is not clearly and uniquely specified.

On the other side, EU countries are at much higher level of development and already established cooperation models between HEIs and industry sector. Therefore, for Montenegro it is of crucial importance to make comprehensive overview and understanding of EU practices (focusing on different regions and countries), analyze existing situation at national level and develop best-suiting approach. That is a reason why resulted model and experience in its development, implementation, testing and evaluation will present significant added value for EU digital community, potentially applicable to other Western Balkans and EU sub-regions and countries.

1.1. Analysis of EU

The European Commission launched the Digitising European Industry (DEI) initiative in 2016, coordinating with Member States and regions towards common goals. One of key elements of the DEI initiative are Digital Innovation Hubs (DIHs). DIHs act as one-stop-shops where SMEs and mid-caps can test the latest digital technologies and get training, financing advice, market intelligence and networking opportunities to improve their business through digital innovations.

Digitization brings an associated need for upskilling of the workforce across the new digital economy. The situation in Europe is critical in this respect and is the subject of numerous reports and studies. Some headline figures serve to illustrate the point:

›   37% of the EU workforce has insufficient digital skills; 13% have no digital skills at all;

›   Employment of ICT specialists have grown by 2.9 million in the EU over the last 10 years;

›   40% of enterprises trying to recruit ICT professionals have difficulty doing so.

As stated in the Report "Digitising European Industry progress so far" (March 2018) European countries are at different levels of development and development of regions should be enforced with focus on supporting less developed countries and regions. Even WBs have been significantly improved in terms of innovation performance in the last ten years, more significant steps are still needed in order to catch up with digitizing industry of other European regions.

1.2. Analysis Western Balkan region and Montenegro:

Furthermore, European Commission in several documents defined and suggested measures needed to be implemented for WB region, as follows:

1. In June 2018, the Digital Agenda for WBs was launched with focuses on strengthening the digital economy and society and boosting research and innovation as a key role to play in this effort;

2. In July 2018, the "Measures in supporting of a Digital Agenda for the Western Balkans" sets out five main areas to be covered by the Digital Agenda for the WBs. The project covers the following 3 of 5 main areas:

›   *Improvement of Digital skills*. Digital skills are necessary for the development of the digital economy and society. Having in mind that the Union and the Western Balkans alike are suffering from a growing professional ICT skills shortage and a digital literacy deficit, improvements of digital skills are necessary.

›   *Trust, Cybersecurity, Capacity building and Digitisation of industries*, to ensure that all sectors benefit from digital innovation. Trust and security are at the core of the Digital Single Market Strategy and a precondition to develop the digital economy in Europe.

›   *The adaptation, implementation and enforcement of the acquis in the area of the digital single market*. In line with the relevant provisions of the

Stabilisation and Association Agreements, the Western Balkans partners are responsible for the alignment of their national law to the relevant EU acquis.

3. The Joint Research Centre (JRC) in supporting an Innovation Agenda for the WBs suggested the following key instruments: (i) capacity-building activities for technology transfer, in particular through specialised workshops, tools and instruments specifically designed to assist the academic institutions in the regional economies; (ii) support to transnational collaboration and linkages in the context of EU macro-regional strategies; and (iii) data quality enhancement.

The strategic vision of development of Montenegro is based on the **increase of competitiveness of the economy**. A developed and competitive economy is founded on knowledge and resources that should be utilised through related priorities of the Smart Specialisation Strategy. Montenegro is the only one country from wb region that has adopted Smart Specialisation Strategy and implements defined activities on planned and organised manner. Furthermore, monitoring and implementation of goals, measures and initiatives, are connected with the key medium-term priority: EU membership.

A modernised and competitive state is based on three key strategic directions, as follows:

› **Health MNE**. Healthy Montenegro is a society of technology for health, welfare, science, regional cooperation and peace.

› **Digitised MNE**. In accordance with the Industrial Policy of Montenegro by 2020, the national Strategy of Development of Information Society (2016/2020), and the national Strategy of Cyber Security of Montenegro (2018-2021), strategic direction of Digitalised MNE should enable reaching the standards of the EU that are related to Digital Agenda, Single Digital Market Strategy and the new EU Industrial Policy Strategy.

› **Sustainable MNE**. Strategic direction of Sustainable Montenegro relates to the fulfilment of the constitutional provision on Montenegro as an ecological state.

Pursuant to the strategic development vision of Montenegro, through the application of S3 methodology and conducting of the Entrepreneurial Discovery Process, four priority areas have been defined: (i) Energy and sustainable environment; (ii) Sustainable agriculture and food value chain; (iii) Sustainable and health tourism and (iv) ICT, where CT is

a horizontal sector as it provides business and technological support to other priority sectors. By investments, as well as through development of innovative and research potential in the selected priority areas, new opportunities will be created for Entrepreneurial activities and development of a Knowledge based economy.

2. What is Alredy Implemented in Montenegro?

In accordance with the strategic directions of development defined at national level, two Montenegrin Higher Education Institutions, University of Montenengro and University of Donja Gorica, where 99% of Montenegrin students study and which employ 99% of scientists, have updated their strategic and development goals in order to provide Montenengro with adequate able to realize the set national strategic goals:

› Education and research is primary focused on **priority fields**: (i) Sustainable agriculture and food value chain; (i) Sustainable and health tourism i (iii) ICT;

› EU support and CBHE grants are already used for significant **innovations of study programs and curricula reforms,** aimed on capacity building and human development in priority fields

> **Research capacities** are strengthened by support of the Government and relevant ministries through establishment of three Centre of Excelence (CoE): (i) BIO-ICT, as the first CoE in Montenegro, creates a specific innovative ecosystem focused on development and implementation of novel bioinformatics technologies, while the contacts for the following two centres are signed: (ii) CEBIMER- CoE for biomedical research at University of Montenegro, and (iii) FoodHub-CoE for Digitizing Food Security Risk Assessments and Accurate Certification of Food Products at University of Donja Gorica;

> In May 2019 University of Donja Gorica made own investment in launching Entrepreneurial Nest, aimed on supporting students' business ideas;

> Ministry of Science signed agreement to join regional project **SEEIST- South East European International Institute for Sustainable Technologies**

> HE evaluation committees at national level defined key suggestions for further development: **strengthening of relations between higher education institutions and the wider economic and social environment**.

All aforementioned is in line with identified **roles of universities and research centres in process of digitisation at eu level:** leaders in strengthening cooperation with national economies, capable to provide expert knowledge and support to their local industries, as well as to help them to cooperate with innovators, investors and customers all across Europe and globally. However, collaboration and networking are also essential to ensure best practices can be exported to other regions, and missing expertise can be imported, ensuring an efficient innovation ecosystem.

All we mention above is a reason why the project is focused to support Montenegro to maximise the benefits from digital technologies in priority fields of agriculture and health while ensuring use of existing capacities and resources in supporting adaptation of students and future leaders, higher education institutions and business sector to digital area.

3. Target groups

The challenge in knitting together all these different elements is huge and DigN€st project is designed to provide support to addressing the needs of the target groups in MNE. Target groups are identified in accordance with both EU trends and the needs at national level, as follows:

> Research Centers and Universities

> Clusters, Companies and SMEs

> Governmental institution

> Companies and other stakeholders

3.1. Research Centers and Universities

> **Students**- young generations of future professionals need to acquire practical knowledge and skills, as well as encouraged for innovative ideas and entrepreneurship, educated and skilled either to start own businesses or get employed in different digitized sectors at national/international level. It is of crucial importance to provide them highly skilled with practical experience in relation to recent technological trends and digitization initiatives;

> **Academic staff members**- as key providers of knowledge transfer activities, academic staff members need to have specialized knowledge as required for implementation of industry digitization, as well as have close cooperation with national economy in order to provide support to local industries and help them to cooperate with innovators and customers all across Europe and globally;

> **Authorities**- exchange of knowledge and experience aimed on building own capacities, integration with available resources at national/international

level in order to complement with experts in missing fields for the institution, as well as continual work on innovations. Missed expertise shall be imported, thus ensuring creation of efficient innovation ecosystem.

University of Donja Gorica already identified the need for supporting students' ideas and launched Entrepreneurial Nest (in May 2019), while essential support for enhancing services in digitized are is needed: support to the whole process of development and implementation of entrepreneurial ideas in the fields of agriculture and health, specialized education and training, creation of services for SMEs in digitization processes, etc.

Students from Montenegrin High Education Institutions need support in gaining knowledge and skills to meet skills needs of industry, more flexible settings to address the future work environment, etc. Students' innovative ideas may originate from several sources: (i) research work and results at HEIs and inclusion of students in projects and CoEs, (ii) educational processes at HEIs, (iii) participation and conferences and other events focused on innovations, (iv) internationalization: study visits and placements in companies/HEIs, (v) cooperation with industry, and (vi) other self-effort activities. Therefore, students need support in each of those activities, ranging from

idea generation, over presentation, to advisory support in development and implementation.

Furthermore, staff members need support in improving their skills and existing approaches in modernization of education and training and better anticipate skills needs of industry; how to work with industry partners to discuss individual needs (e.g., competency-based learning, etc.) and finally how to support expert and innovative knowledge transfer to industry and market as a support to digitization process.

High Education Institutions authorities are focused on internationalization, strengthening institutional capacities in priority fields, continual improvements and updating of educational and strategical approaches in order to follow international trends and development processes etc.

3.2. Clusters, Companies and SMEs

Their key need is in better reach out to SMEs and industry, in order to: (i) improve their own businesses, (ii) extend the market, and (iii) cooperate with EU companies in order to digitize own business processes.

Furthermore, digitization brings an associated need for upskilling of the workforce across the new digital economy, and to

this end, the following two dimensions are of crucial importance: (i) access to relevant education and training offers and providers, and (ii) recruitment of young professionals highly skilled in recent technological trends and digitised approaches in different segments of industry.

Chamber of Economy of Montenegro together with other relevant national institutions already started with actions aimed on rising awareness about digitization and boosting national companies to start the process. Their need is primarily in supporting development of digital capabilities in organizations and mapping digital expertise across different organisations, identification of gaps and recognizing where digital expertise adds value.

3.3. Governmental institution

Governmental institution authorities and workers at leading positions (e.g. Directors of Directorates for ICT, Directors of Directorates for Quality, etc.) have the needs in increasing knowledge and adapting experiences from leading EU countries in digitization of healthcare and agriculture and implementation of S3, respectively, cooperation of HEIs with economies, cooperation of HEIs aimed on creation of highly skilled workforce, etc.

3.4. Companies and other stakeholders

Companies and other stakeholders need to (i) improve existing products/services, (ii) create/implement new technologically enhanced products/services thus contributing to digitization of business process and increase of quality of products/services, (iii) create own capacities for designing/development of digitized services/solutions and/or up-skilling and re/skilling workers to accept digitized services/solutions, etc.

Clinical Centre (KCCG) as the largest provider of health care services at tertiary level has ultimate goal on increasing quality of services, and therefore authorities need support in identification of best practices and solutions appropriate for existing integral health information system and available medical and technical resources/capacities; while health workers need support in understanding international trends in using digitized solutions, accept new technologies and contribute with innovators on developing best suiting digitized solutions for specific fields (e.i. telemedicine, surgery, etc.)

Company SimcicMontMilk as leader in production of milk and dairy products is permanently focused on quality assurance, continual testing with thousands of discrete checks for validity and reliability. Their authorities need support in identifi-

cation of best suiting digitization products ensuring highest quality and safety in cooperation with external subcontractors as well as with end users (citizens); while managers of production processes need (i) support in identification of how existing business process can be integrated and which digitized services/products are needed, as well as (ii) support in transformation of processes and full acceptance of digitized services/products.

4. Aims and Objectives

Digital research centres and universities have a key leading role in digitization process of industries, strengthening cooperation with national economies, capable to provide expert knowledge and support to their local industries, as well as to help them to cooperate with innovators, investors and customers all across Europe and globally. However, collaboration and networking are also essential to ensure best practices can be exported to other regions, and missing expertise can be imported, ensuring an efficient innovation ecosystem.

That is a reason why the project is focused to **support modernization of higher education institutions in Montenegro, to enhance their cooperation with wider businesses in order to maximize the benefits from digital technologies in priority areas of agriculture and health while ensuring that student graduates,**

future experts and the workforce are adapting to the digital area.

Specific the project objectives are:

› *Strengthening the relation between higher education institutions and national economy in Montenegro* through creation of *Montenegrin Academic Hub* strongly connected with national ecosystem, capitalizing from excellence in research and available capacities in priority fields of agriculture and health, and other initiatives rooted in Smart **Specialization** Strategy;

› *Enhancement of the level of competencies and skills* of staff members from higher education institutions by sharing experience, expert knowledge and digital skills for local economy; respecting the diversity of national, EU and global industries, challenges and the level of innovations;

› *Strengthening the quality of higher education* through new forms of practical training schemes and study of digitized labour market in priority fields of agriculture and health;

› *Strengthening internationalization of higher education institutions*, including networking with other digital innovation hubs and competency centers, sharing knowledge and complementing expertise.

Realism and feasibility of defined objectives are rooted in the following facts:

All strategical documents at national level (e.g., Smart Specialization Strategy, signed WB Digital Agenda, strategic documents of the Ministry of Economy, Ministry of Science, etc.) defines the need **Conclusion**

› for technology innovations and digitized businesses,

› New Law on Higher Education Institutions in Montenegro clearly defines the necessity for at least 25% practical placements for students within each course, thus providing legal basis for realistic implementation of the project practical trainings schemes for students,

› Several actors at national level have already started with some activities moving towards digitization process (e.g., Chamber of Economy, Ministry of Science, etc.) and support to students' entrepreneurship (e.g., University of Donja Gorica) and integrated efforts are needed, and in the same time they are involved as DigN€st project partners,

› DigN€st consortium include almost 99% of HEI population in Montenegro,

› MNE Government invested 8 million euros in developing infrastructure for new Technology Park in Podgorica, and additional 5 million euros in two new Centers of Excellences in priority fields of health and agriculture (hosted at partner universities), University of Donja Gorica invested own resources in Entrepreneurial Nest (in May 2019); which all together clearly present both infrastructure basis and research excellence which will be integrated with Montenegrin Academic Digital Hub as essential for effective implementation and functioning.

By capitalizing from already implemented steps at national level, it is a right moment to make one step further in supporting Montenegrin higher education institution connections with labour market aimed on digitization processes in priority areas of agriculture and health.

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Projects

ESTABLISHING MODERN MASTER-LEVEL STUDIES IN INFORMATION SYSTEMS (MASTIS)

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During the implementation period of the MASTIS project, the University of Donja Gorica together with project consortium sought to find a better way to realize the idea of the project, which is defined as the improvement in Information Systems according to the needs of the modern society. MASTIS Erasmus+ project enables the Partner Country & EU Universities to modernize education in Information System based on the student-oriented principals, strong university-enterprise cooperation and modern approaches to the education.

Project was implemented during the period of 4 years, from October 10th 2015 until October 10th 2019 and it is co-financed by the Erasmus + Programme of the European Union.

The project consortium includes 19 project partners from different EU countries (Universite Lumiere Lyon 2, France, coordinator, Luiss Libera Universita Internazionale Degli Studi Sociali Gui, Italy, Westfaelische Wilhelms-Universitaet Muenster, Denmark, Kauno Technologijos Universitetas, Lithuania, Univerza v Mariboru, Slovenia, University of Agder, Norway, Lulea Tekniska Universitet, Sweden, Universitat Liechtenstein,

Liechtenstein, Aica Associazione Italiana per linformatica e il Calcolo Auto, Italy), Ukraine (Simon Kuznets Kharkiv National University of Economics, National Technical University of Ukraine Kyiv Polytechnic Ins, Lviv Polytechnic National University, Vinnytsia National Technical University, Kherson State University, National Technical University Kharkiv Polytechnical Institute, Ministry of Education and Science of Ukraine), Montenegro (University of Donja Gorica and University Mediterranean) and 12 Associated partners.

The principal aim of the project was improvement of the Master Programme in Information Systems (MPIS) according to the needs of the modern society, to bring the universities closer to changes in the global labour market and world education sphere; to enable them to stay responsive to employers' needs; to give students an idea of various job profiles in the IS domain and to ensure employability throughout graduates' professional and soft skills.

Specific objectives of the project included:

› improvement of Master Programme in IS according to the requirements of the business;

› modernization of the current Degree Profile (DP) & curricula in IS. Degree Profile and Curricula revision implemented in accordance with the newest standards of Higher education and the compatibility with the National Qualification Frameworks;

› development of an innovative academic environment for MPIS as a platform for training/retraining, PhD, LLL;

› provision/modernization of labs infrastructure for IS.

Results of the project

The main innovation of the project is that the new curriculum has been developed in strong cooperation with IT companies, IT departments of other business and local authorities. Everything has been prepared with future employers from the beginning (i.e., the very definition of skills - technical and social - that must be acquired by Master's students in Information System) until the end: de-

gree profile definition, list of courses and evaluation tools, the balance between theory and practice, internship, Master thesis including the process and defense.

The other way around, the project execution prompted rethinking of the role of information systems (IS) in the activities of enterprises, in particular, their impact on improving the architecture of enterprises and business processes.

MASTIS Project has involved six Universities from Ukraine and two from Montenegro.

The MASTIS project succeeded in improving Master courses in the field of IS in two different ecosystems and in two different ways at the same time: developing new programmes in Ukraine and modernization and updating of already existing programmes in Montenegro.

Specifically, the project modernized Master programme in IS, gave students modern knowledge and gave students the idea of various job profiles in the IS to ensure employability throughout graduates' professional and soft skills. The program involves now stakeholders at all stages of students' life cycle and the role of the university as a driver of social and economic in Montenegro and Ukraine is increased.

Partnership agreements with economic operators who were interested in collaborating with the universities were esta-blished as well. This network facilitating the "knowledge triangle" and bringing together students, employer associations, entrepreneurs, local decision-makers and university professors.

In Montenegro, the main achievements of the project consisted of:

› The update of a Master programme in IS on both universities. According to the Law on Higher Education of Montenegro, HEI's are obligatory to provide up to 25% of practice: the % is higher in the new Master's degree (including case studies and research activities), which was prepared in collaboration with the business sector. It can also be the basis for preparing students for PhD studies.

› The equipment of educational laboratories with computers, projectors, devices for the lectures recording in each University. Also, UDG purchased additional equipment to equip an additional room to allow more Master students to benefit from the MASTIS experience

› The establishment of links with non-academic institutions (industry, banks, NGOs, SMEs, etc.), including project collaboration, analysis, organized events, workshops, signed agreements.

› The integration of the innovated MSc program in IS in the preparation process of re-accreditation. New process and practices have been introduced at the institutional level.

› Teaching staff from the two Montenegrin Universities were trained in the professional area and modern teaching methods. The project has offered the opportunity to use existing experiences in France, Germany, Sweden, Norway, Italy and Lithuania regarding Master program in IS improvement.

In Ukraine, the main achievements of the project consisted of:

› The development of a Master programme in IS based on competencies/student-oriented approach and labour market needs, in cooperation with local and national business. Eight courses (5 ECTS each) have been developed, validated and tested. One of them is destined to support the development of the entrepreneurial and innovative capabilities of the students.

> The development of an innovative academic environment in cooperation with -1) EU partners from universities, academic (ERCIS) and business (AICA) associations; -2) Ukrainian IT companies, banks, IT associations, local authorities, NGOs, SMEs, private entrepreneurs.

> The setting of strong networks between universities, businesses and local governments, as between universities themselves, in a country where it is customary to teach all your life at the university where you prepared your bachelor's degree. The creation of a Ukrainian Association of Information System Departments is an important innovation.

> Teaching staff from Ukrainian Universities were trained in professional area and modern teaching methods.

MASTIS project underpins universities' strategies for internationalization, strengthening their links with other universities from the EU and neighboring countries, including new KA1 exchange programmes. New relations of trust have been created to such an extent that, for example, Simon Kuznets Kharkiv National University of Economics (Ukraine) and University of Donja Gorica (Montenegro) signed an agreement for cooperation in 2019.

LIBRARY NETWORK SUPPORT SERVICES: MODERNISING LIBRARIES IN WESTERN BALKAN COUNTRIES THROUGH STAFF DEVELOPMENT AND REFORMING LIBRARY SERVICES (LNSS)

Central University Library (CUL) has participated in this project along with all the other libraries at the University of Montenegro (UoM), and the following project results were achieved:

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> modernization of libraries at the UoM through improving the level of expertise and qualifications of library staff and improving the quality of library services and user services, in order to strengthen the institutional support of libraries for learning, education, research and lifelong learning;

> management, accessibility and availability of UoM libraries have been improved through strategic planning and development of library policies;

> Library network has been established in the Western Balkan countries with the purpose of dissemination, sustainability and use of project results.

Within numerous workshops and various forms of education, project participants acquired new competencies, skills and knowledge and increased the level of their expertise and leadership. The acquired knowledge and skills are used to continue the education of library staff at UoM and beyond, at the level of the Association of Librarians of Montenegro, as part of the celebration of National Library Awareness Day (NLAD), in cooperation with NGOs such as the Association of Youth with Disabilities of Montenegro and Union of the Blind of Montenegro, etc.), which, through cooperation and partnership, strengthens the position and role of library activities, as a support to all potential users and the entire community.

In line with the project objectives, the partner universities developed LNSS curricula for 8 different modules. CUL has independently prepared and developed
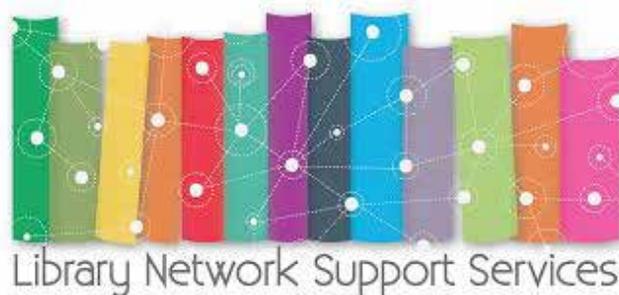
Library Network Support Services

two modules – *Collection Development Policy* and *Access to libraries for persons with disabilities Policy*. In addition to that, CUL has prepared two other very important strategic documents - *Strategic Development Plan of the Central University Library* and the *Customer Service Policy*.

In terms of inter-project activities at UoM, CUL received a extremely valuable computer and specialized equipment intended for people with vision and hearing impairments within the Erasmus + project *Trans2Work - Transition for Higher education students with disabilities in Serbia, Bosnia & Herzegovina and Montenegro* which means that we shall finally, with the reconstruction of the reading room and further education of library staff for work with people with disabilities, acquire basic preconditions for smooth work and learning of that group of students. The mentioned equipment shall be used by all persons with disabilities, which ensures the widest user accessibility to all potential CUL resources and services.

National Library Awareness Day (NLAD) is an annual event held at all partner universities. In Montenegro it is held every October 5th with the aim to animate and remind the Montenegrin community and the public of the importance and role that library-information activities and libraries in general have in education, science, research, culture and everyday life on the whole. Moreover, the goal of the event, given the choice of topics and activities, is certainly to raise the level of expertise, skills and qualifications of library staff. The agenda involves all libraries in Montenegro - the National Library, public libraries, university and school libraries, as well as partners from the region. The event is held across the Montenegro. The agenda is made of lectures, presentations and workshops in the various fields of library and information activities, and it is intended for librarians, academic community, students and all other potential users. One of the programs intended for students refers to the education related to the use of electronic services and resources (e-catalogues, databases, Digital Archive of the University of Montenegro, etc.). In addition, public libraries of Montenegro, at the initiative of CUL, have implemented an action called *Libraries for students*, which offers free enrolment for all interested students in our country. The goal of this action is a symbolic contribution to the affirmation of library and information activities, but support for higher education in Montenegro as well.

One of the significant results of the project is the online LibApps platform, which will be available to all project partners for 5 years after the project has ended, and which, in fact, represents the widest type of library network for cooperation and exchange of experiences and knowledge among project participants. Today, this platform contains all important documents in the field of library and information activities, as well as all documents that represent results of all participants in the LNSS project. Apart from the LibApps platform, dissemination of project results is realized through LNSS project website, social networks, media, etc.

Project activities were implemented through cooperation and broad partnership at all levels – individual, institutional, national, regional and international, with very useful results realized in terms of inter-project activities and project activities shall continue after the project ending through the implementation of already achieved results and adopted library politics, as well as through raising awareness of the importance of library activities at the national level through the mentioned annual event.

SCHOOL-TO-WORK TRANSITION FOR HIGHER EDUCATION STUDENTS WITH DISABILITIES IN SERBIA, BOSNIA & HERZEGOVINA AND MONTENEGRO (TRANS2WORK)

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From October 15, 2015, to October 14, 2018, the University of Montenegro participated in the realization of the project entitled School-to-Work Transition for Higher education students with disabilities in Serbia, Bosnia & Herzegovina and Montenegro (acronym: TRANS2WORK) of Erasmus + programme. The consortium counted 23 partner institutions from Greece, Slovenia, Germany, Poland, Serbia, Montenegro, and Bosnia & Herzegovina.

This project addressed priority in Montenegrin higher education system, concretely the development of the higher education sector within society as a whole, university-enterprise cooperation, entrepreneurship, employability of graduated students with disabilities (SwD), and employers from the private and public sector. Moreover, SwD that are studying in accordance with new reformed study programs are also included in regular practical lectures to employers. The initiative is to provide support to SwD by the side of mentors. The emphasis is to support appropriate student services necessary for their employment, providing accessibility, additional technologies and individual support for SwD.

During and after project implementation, the achieved results impacted on the national and institutional level of the higher education in Montenegro by improving the quality and relevance of school-to-work transition of the SwD. This implies the provision of support and creating the working environment to prepare employers on understanding the needs of employees with disabilities in order to offer new jobs. The partners from our country worked hard in order to provide accessible web-based tools, electronic

index, and the accessible database for the labor market and society after graduation. Significant support was provided to the SwD from Montenegrin higher education institutions who participated in the 2-month practical placement at foreign private companies. One of the milestones in the project was related to the purchasing equipment for persons with hearing and visual impairments which is installed at the University of Montenegro and University of Donja Gorica.

The coordinator and other partner institutions from EU countries shared their knowledge and experience of good practices in the case of position and role of career centers at universities. One of the main activities was the organization of special mobility strand for SwD at partner country level aimed to introduce partner higher education institutions (HEIs) the idea of the training mobility and raised awareness on disability issues not only at HEIs but to wider society through NGOs

such as Association of Youth with Disabilities of Montenegro. Also, their legislative and procedures related to SwD in HE sector were of utmost importance.

The direct beneficiary of the project are SwD, universities, and employers. The project provided employers to identify the requirements needed for them and SwD for their interests and educational needs. The position of students was emphasized a lot in the previous period following the provisions of the free and appropriate access to higher education that represents a fundamental people right and obligation at all study levels. The universities reached the goals by paying more attention to strengthen the role of career centers, providing mentors and other motivating operations in advising the careers of SwD.

The long-term impact of the project realized activities is related to the strengthening of relations between HEIs and the wider economic and social environment. This further means development of adequate educational and working environment which will enable equal chances and improved opportunities for people with disabilities in Partner Countries.

HEIs act as coordinators or partners in a numerous Erasmus + projects CBHE KA2 with the final goal of gaining international recognition and creating development strategies. Additionally, HEIs actively participate in the improvement of the conditions for SwD in Montenegro and support all initiatives related to their status and position in the society. There are numerous actions started up by the HEIs focused on the better connectivity between graduated students, including SwD, and employers at the labor market.

Newly Selected Projects

DEVELOPMENT OF REGIONAL JOINT MASTER PROGRAM IN MARITIME ENVIRONMENTAL PROTECTION AND MANAGEMENT – MEP&M

University of Montenegro

Blue economy sector in Montenegro and Albania is recognized in the EU Strategy for Adriatic Ionian Region (EU-SAIR). Besides, there are numerous international and national legal and strategic documents developed and adopted aiming to tackle climate change and marine pollution issues. The most important topics and activities are related to the coastline and open seas, such as offshore energy, including renewable (wind) and fossil fuels (oil&gas), shipping and marine transport, and marine and coastal tourism, yachting and marinas, port activities, shipbuilding and repair, coastal planning and environmental protection of coastal and sea region. Some of these activities are developed to some extent, while others are just emerging, and all in some matter make influence on marine and coastal environment in South Adriatic and North Ionian seas.

With regard to the topic of this project, Montenegro and Albania will support following activities: developing the professional capacities in field of maritime environmental protection and management; supporting the process of regional cooperation in public, private, NGO, education and research sectors.

Current education systems in Montenegro and Albania only partially cover some of aspects of maritime environmental protection and management, mostly on bachelor degree level. Therefore, the consortium sees the need to develop new regional joint interdisciplinary master program in English in maritime environmental protection and management (MSc in MEP&M) for graduated BSc students, professionals from governmental bodies (related to marine environment protection) and blue economy sector enterprises (including port authorities, pollution control officers, inspectors, government officials, salvors, managers, masters, engineers, fleet supervisors, seafarers, ship owners, legal managers), and other professionals who seek for specific knowledge in field of MEP&M. At the same time, countries like Montenegro and Albania are seeking for those professionals with knowledge, experience and skills in field of marine environmental protection who will be able to manage environmental issues, be able to take part in future negotiations toward EU membership and help in achieving national environmental goals.

MEP&M project proposal aims toward solving multiple issues. First, coastal zone and marine environment protection is one of Montenegrin and Albanian Governments priorities. Also,

Kotor Bay

this field is one of priorities toward EU accession process for all WBC. Lack of adequate number of professionals in governmental institutions and blue economy sector enterprises dealing with issues in this field should be overcome through enhanced education and research at Montenegrin and Albanian HEIs. Secondly, strengthening international competitiveness within European Higher Education Area (EHEA) and European Research Area (ERA) are the main driving forces for Montenegrin and Albanian HEIs.

In order to overcome these shortcomings, MEP&M project will address the following specific objectives:

1. Based on state-of-the-art in Maritime Environmental Protection and Management education and research, to develop regional joint interdisciplinary MSc program on English language for students and professionals having at least BSc degree, to address the long-term needs in specific issues of coastal and marine environmental protection and management in South Adriatic and Ionian Seas, thus strengthening international competitiveness of Montenegrin and Albanian HEIs.

2. To build up human and technical capacities of PC HEIs to support new MSc program in MEP&M.

3. To enhance networking among PC HEIs, governmental institutions, Blue economy sector enterprises and NGOs in order to act regionally in order to prevent and cope with consequences of global climate change and local/regional marine pollution.

IMPROVING THE PROCESS OF EDUCATION THROUGH DEVELOPMENT OF E-LEARNING MULTIMEDIA PLATFORM AND SMART CLASSROOMS – SMARTEL

University of Montenegro

The project aims to promote equality of access to education and provision of support for including in the teaching activities students with fewer opportunities and greater limitations that restrict or completely prevent their access or participation due to disability, financial or geographical barriers.

The project target groups are primarily vulnerable groups of students who do not have full access to the educational process at higher education institutions, as well as students who do not have sufficient material means for full access.

The current situation caused by the Corona virus pandemic and the emphasized need to implement teaching through distance learning, further indicates the need to implement project activities that are expected to overcome the current limitations in classroom equipment for online teaching.

The above said is in line with the aspiration of the project to include also students with disabilities who can have problems with participating in the teaching process adequately i.e., to include the vulnerable groups in the teaching process in their full capacity.

In this sense, the creation of multimedia platforms for learning, equipping of classrooms with modern information, communication and smart learning technologies, the development of pedagogical approaches based on the use of information and communication technologies will enable target groups of students to attend classes and take part in the teaching process equally as the students who do not belong to vulnerable groups.

In short, the implementation of the project should create conditions for inclusive and quality education for all students.

By engaging in the activities of the project the University of Montenegro, as the oldest and largest higher education, scientific and artistic institution in Montenegro, continues to invest efforts to ensure the use of modern technologies in its work, to develop academic excellence and autonomy by developing students' abilities, their creativity and freedom of creation, regardless of the existence of limitations in any sense.

The implementation of planned activities will lead to the modernization of the teaching methods and teaching materials and to improvement of teaching and technical staff capacities. Among other things, this will be achieved through the analysis of existing distance learning platforms, through defining of user requirements for modern platforms and new innovative pedagogical approaches and learning methodologies by using modern multimedia platforms, through procurement and installation of equipment, preparation and installation of the platform.

Teaching and technical staff of the University of Montenegro will participate in trainings and workshops dedicated to the improvement of teaching methods and establish broader cooperation with partner institutions through exchange of experience in improving the teaching process.

STRENGTHENING UNIVERSITY AUTONOMY AND INCREASING ACCOUNTABILITY AND TRANSPARENCY OF WESTERN BALKANS UNIVERSITIES – STAND

University of Montenegro

STAND project aims to improve the processes and mechanisms of the university autonomy by increasing the management capacities, accountability and transparency of Western Balkans Universities.

It aims to undertake measures that enhance the management and governance practices at participating universities, which also relates to human resources, financial capacities and internationalization.

Furthermore, the project is related quite well and contributes to measures such as evidence-based policies, financing of education, governance, quality assurance of public and private higher education sector, introduction of transparency tools and standards and guidelines. The project particularly will support participating countries and institutions to undertake procedures and steps for transparent employment and promotion of both academic and administrative personnel in universities, through development and installation of online platform open for public, as well as updating rules and regulations that support such measures.

Sustainable models of university autonomy in Kosovo, Albania and Montenegro are lacking. There is a pressing need for holistic approach in strengthening university autonomy, in four particular dimensions - organizational, academic, staffing and financial autonomy.

The novelty is that the STAND will be the first project in the region that will publish the scorecard and will create a forum of discussion with the main stakeholders in partner countries in providing sustainable models of university governance.

The project comprises of the following key specific objectives:

› To enhance modernisation of governance in Western Balkans Universities through capacity building, experience exchange and upgraded infrastructure;

› To improve the university autonomy through empowering national and university level regulations and structures;

› To create and adopt the university autonomy scorecard for Kosovo, Albania and Montenegro;

› To expand an effective cooperation between HEIs and the relevant ministries in improving the transparency, accountability and financial sustainability;

› To establish of the Expert network on university autonomy.

As structural project it will support reflecting on standards at EU partners and enhancing them at WB institutions through intensified regular academic and management exchange of good practice and sustainable networking between EU-WB partners.

A mix of bottom-up and top-down approach that will be used in the project, fosters the dialogue between universities and ministries, and thus enables the consortium to contribute more effectively to the project implementation and sustainability to strengthen the autonomy of Western Balkans higher education institutions.

INCLUSIVE TERTIARY EDUCATION IN THE WESTERN BALKANS – IDEA

Maja Drakić,
University of Donja Gorica

Most higher education institutions in the Western Balkans lack an adequate regulatory framework, knowledge, infrastructure, equipment and technology, but also education and training that would facilitate inclusive education and equal access to higher education for people with disabilities and students with learning disabilities. This makes high school graduates with disabilities discouraged to continue their education at the tertiary level. It sometimes happens that despite their will and desire, after enrolment at the university, they are forced to leave their studies due to inadequate support systems. In this way, the countries of the Western Balkans are losing important social and intellectual capital, lagging behind EU countries in terms of equal access to higher education services.

The University of Donja Gorica recognized this challenge since its establishment. That was the reason UDG was a partner in the implementation of several Tempus, later Erasmus projects with the goal to strengthen the capacity for inclusion of students with disabilities and learning difficulties. Today we can say that UDG is recognized as a University that provides equal access to all students, and students with disabilities and learning difficulties enrol and have success during studies at almost all study programs of the University of Donja Gorica. Beside improved infrastructure, students with disabilities and learning difficulties have the support of academic and non-academic staff at the University, which results in

both academic and professional success of these students. However, UDG understand strengthening infrastructure and improving knowledge of academic and non-academic staff in issues related to equal access of all students to higher education services very important. This is something that must be in the focus permanently and UDG gladly accepted the partnership on the project "The Inclusive tertiary education in the Western Balkans" (Acronym IDEA).

The main goal of this project is to address one of the key challenges of not only Western Balkan countries, but the the whole of Europe during this decade - improving access and establishing adequate conditions for learning and inclusive tertiary education and improving employment opportunities for persons with disabilities and students with learning difficulties. These goals can be achieved through strengthening the capacity of all student support services, strengthening the capacity of academic and administrative staff, students and relevant governing bodies in higher education partner institutions, but also in the Ministries of Education of partner countries; through the development of modern inclusion practices, appropriate support and networking technologies, which should also support groups of students and pupils with disabilities or learning difficulties at lower levels of education (primary and secondary education).

The IDEA project aims at creating and operationalizing the

infrastructure and know-how necessary to promote equity and inclusion in HE by facilitating the access in HE services of students with disadvantaged backgrounds and fewer opportunities compared to their peers on the premises of:

›   Disability: Physical, sensory or other.

›   Educational difficulties: Students with learning disabilities.

›   Partner Region: [Western Balkans]

The project aims at addressing one of the key challenges that Europe and the Balkan region, in particular, will be facing until the end of the 2020s and to support the European policy agenda for equity and social inclusion in HE. In specific terms, the Inclusive Tertiary Education in the West Balkans project aims at creating and operationalizing the infrastructure and know-how necessary to promote equity and inclusion in HE by facilitating the access in HE services of students with disadvantaged backgrounds and fewer opportunities compared to their peers on the premises of:

›   Disability: Physical, sensory or other.

›   Educational difficulties: Students with Learning disabilities.

The project is implemented through a multilateral partnership of several universities from the Western Balkans. The project leaders are from Albania, led by Polis University in Tirana, which is the project coordinator. There are also: "Aleksandër Moisiu" University of Durres, Medical University of Tirana, "Luigj Gurakuqi" University of Shkodra, Catholic University "The Lady of the Good Council"; and EPOKA University. Three partner institutions are from Kosovo - the University of Pristina, the International Business College in Mitrovica, and the University College, which has several campuses in Kosovo. The University of Donja Gorica, as a higher education institution from Montenegro, which has come a long way in terms of inclusive higher education, is the Montenegrin partner in

this project. Transnational cooperation on capacity building in terms of inclusion in tertiary education is being developed within the project with the support of three European universities that have been achieving significant results in this field for many years, and which should share their knowledge and experience with partners from the Western Balkans. These are the National and Kapodistrian University of Athens and their Accessibility Unit from Greece; Masaryk University and their The Support Centre for Students with Special Needs from Czech Republic and the University of Limerick and their Disability Office from Ireland. To make the perspective of people with disabilities and learning difficulties the focus of the project, the consortium includes NGOs from all three Balkan partner countries - the Association of Youth with Disabilities of Montenegro, the Albanian Foundation for the Rights of Persons with Disabilities and the Association of Paraplegics and Children with Disabilities of Kosovo.

EDUCATIONAL CAPACITY STRENGTHENING FOR RISK MANAGEMENT OF NON-NATIVE AQUATIC SPECIES IN WESTERN BALKANS – RISKMAN

Prof. Ana Pešić
University of Montenegro

University of Montenegro (Institute of Marine Biology and Faculty of Natural Science) is a partner in the approved Erasmus + regional project "Educational Capacity Strengthening for Risk Management of Non-native Aquatic Species in Western Balkans" acronym RiskMan. University of Montenegro is a partner institution in this project, while the coordinator is Mugla University Sitki Kocman from Turkey. Other project partners are the Universities of Palermo, Zagreb, Sarajevo, Tirana, Bihać, Institutes and NGOs from Ohrid, Albania, Greece, as well as two associated partners from Turkey. The total budget of this project is 805,030.00 euros, while the budget of the University of Montenegro is about 80,000.00 euros. Project started on November 15th 2020, and will last for 2 years.

Along with climate change, the introduction of non-native (NN) species ("non indigenous" in European Frameworks) is widely recognized as one of the main threats to aquatic biodiversity and impact to human well-being. Non-native invasive species are considered the major driving force being able to impair socio-ecological systems creating significant impacts on human well-being. A large proportion of NN species is widespread in the Balkans countries, in marine and freshwater ecosystems, and current research revealed the extent of the knowledge gaps on the current state, distribution and impacts of NN aquatic species in the Balkans.

The main aim of RiskMan Project is to strengthen the Educational Capacity for Risk Management of Non-Native Aquatic Species in the Western Balkan Region (Albania, Bosnia and Herzegovina, Montenegro) by promoting the education of stakeholders (public health, fishermen, aquaculture employees, NGO sector, etc.) and higher education students and stimulate cooperation among the target countries. To reach these aims, higher levels of education as well as workers of private sector (i.e., aquaculture or aquarium trade) will be involved for preventing the further introduction and spread of non-native aquatic species in the Partner Countries. In addition to the courses that will be developed specifically for certain groups of stakeholders and for master's students, the project will also develop a risk management model for alien and invasive species for the Western Balkans.

SUSTAINABLE UNIVERSITY – ENTERPRISE COOPERATION FOR IMPROVING GRADUATE EMPLOYABILITY – SUCCESS

Jelena Šaković-Jovanović
University of Montenegro

The main objective of the project is to modernize WBC universities through the strengthening University-Enterprise partnership in the areas of education and knowledge transfer based on the market needs with aim to improve student employability. Furthermore, the project aims to enhance international cooperation and networking at the regional/international level between universities and enterprises.

By achieving project objectives, and by establishing strong cooperation between universities and enterprises, it will be supported economic growth in the country by creation of new enterprises and ensuring that business sector will have the skilled staff they need for the future. Synergic engagement of industry and HEIs (High Education Institution) in education will improve student employability. Updating curricula at some study programmes by introducing real-life problems from

industry and introducing the entrepreneurship courses will help graduate employability as the students will get opportunity to get knowledge on problem solving methodology. Academic staff will improve their skills in practice-oriented teaching and will be familiarized with real sector experiences, that will be further used in teaching process as well. All mentioned will enable that teaching process become more relevant and engaging.

As business sector will be involved in delivery of the teaching modules at the University (that will be created within the project for specific study programmes), contacts between employers and students can also lead to opportunities for jobs. Internship programmes will increase student employability, by giving them concrete experience in the workplace. Students from the University will be involved in the Internship programme. The existing university structures will be reinforced by creating Start-up management services at HEIs with aim to educate students in entrepreneurship and to provide them with basic knowledge necessary for creating their own business. Achieving this objective will increase self-employability of graduates. These activities are organised as extra-curricular activities.

Enterprise-university cooperation will be implemented through the network and platform that will be used as tool/place which brings all relevant stakeholder at one place. All idea for further cooperation (common projects), professional trainings etc. will be published at the platform.

By achieving the project objectives, newly established cooperation will be organized at the institutional level and it will be supported by the legal framework that will be created within the project. Furthermore, the universities will increase their structural (though Start-up services) and human capacities that will also improve their position in the society.

Coordinator of the project is International BURCH University, Bosnia and Herzegovina. Partners on the project are from Albania, Bosnia and Herzegovina, Germany, Montenegro, Poland, Serbia and Spain.

Budget of the project is: 849,257.00 EUR

Budget of the University of Montenegro is 71, 915.00 EUR

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