



REFORMS INSIDE

Publication of Higher Education Reform Experts in Montenegro

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REFORMS INSIDE – Publication of Higher Education Reform Experts in Montenegro

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Higher Education Reform Experts in Montenegro

Mira Vukčević, University of Montenegro Mubera Kurpejović, Ministry of Education Aneta Spaić, University of Montenegro, Faculty of Law Danilo Nikolić, Rector of the University of Montenegro Radovan Stojanović, University of Montenegro Saša Popović, University of Montenegro Ramo Šendelj, University of Donja Gorica Jelena Knežević, University of Montenegro

Biljana Mišović, Ministry of Education

Sara Arianna Serhatlić, University of Montenegro

Graphic Design: Nikola Latković, mfa

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Introduction



Vania Drliević **National Erasmus+ Office**

We are entering the third decade of Montenegro's participation in the EU higher education programmes.

We can say that Erasmus+ programme, the biggest programme of the European Union, has helped building the pillars of what is called a "modern" higher education system. Thanks to Erasmus+, higher education institutions in Montenegro are more visible, more competitive, richerwith study programmes, both in quantitative and quantita aspects, able to meet the expectations of incoming mobility students and academic/ administrative staff. They have a significantly wider circle of European partnerships, have a more modern university infrastructure, and have more "europeanized" models of higher education. Our HEIs considerably improved their human capacities in terms of project and financial management, as well as their teaching capacities.

However, what can often be less visible, but with the importance not to be neglected, and is directly or indirectly capable of influencing the most important aspect of internationalization, is the activity of the so called Higher Education Reform Experts (HERE) team.

Higher Education Reform Experts, established under the Key Action 3 "Policy Support" has been continually working on en-

hancement, modernization and reform of the higher education system of Montenegro. HEREs are active at both national and international levels, taking part in various international seminars and conferences, thus observing and collecting the best practice examples of the higher education systems of the EU countries, and then integrating them into the higher education system of our country. They propose topics for discussion at the local event, through the organization of local events supported by foreign experts. So far, the National Erasmus+ Office, in collaboration with HERE team, organized series of local events at different topics, such as reform of PhD education, recognition of prior learning, ranking of HEIs, applied versus academic study programmes etc. The role of HEREs is extremely important not only at the level of the Montenegrin higher education system, but for the society as a whole, as they contribute to the improvement of our system and directly or indirectly influence the policy reform in this field.

Therefore, the idea for HERE publication was conceived by the National Erasmus+ Office and HERE team, in order to offer an insight into the various topics related to the improvement and continuing reform of the Montenegrin higher education system, as well as the results of a number of local activities undertaken by our HERE team and other representatives of the academic community. This publication sheds light on some important topics and issues in the field of higher education, the reflections of HERE team on main improvements and goals achieved so far. In addition to the advantages, this publication also points out the disadvantages of our higher education system, i.e. the specific fields within the Montenegrin higher education system where further efforts are needed.

A brief overview of the issues that are a reflection of the activities of this team in the internationalization of the higher education system is presented in this publication. Internationalization, which is one of the main tasks of the HERE team, is the key to successful harmonization of our higher education

system with the European Union model of contemporary and high-quality education. We are all aware of the significance of keeping up with contemporary trends in this field, and our HERE team is a "medium" for transfer and adoption of best practice examples.

Besides, the publication includes some reflections of professors from Montenegrin HEIs, prominent representatives of the academic community, who are currently implementing some of the capacity building projects in the field of higher education that are of great importance for improvement and modernization of various study programmes at our universities as well as for harmonization of our higher education system with the European standards in this field.

Therefore, this publication is also the result of our aspiration to disseminate the information on the main achievements of the Montenegrin higher education system within the academic community and all relevant stakeholders and summarize the results achieved through participation in Erasmus+ projects.

We hope this publication will generate the future ones too, becoming a tradition, enabling even wider approach, and inspiring and involving as many members of the academic community as possible to raise the topics of interest within the academic community, with an ultimate aim – better and high quality HE system in Montenegro.

Reflections



Mira Vukčević **University of Montenegro**

POSITIONING OF LIFE LONG LEARNING IN THE STRATEGY OF DEVELOPMENT OF UNIVERSITY OF *MONTENEGRO*

ithin the new Strategy for development of University of Montenegro the first envisaged

priority is fostering of the education process. Several strategic goals are set within this priority, among which is the development of Life Long Learning concept along with the distance learning and innovative methods of teaching and learning. Strategy for LLL was adopted at the University in 2013, but since then, no serious attempts were made to develop this concept. One of strategic goals is to innitiate LLL progarms at the University. In five-years period University has set up the vision of developed LLL concept through the implementation of several activities as follows: To introduce and foster the center for LLL in its full capacity, to renewed the Strategy for LLL, to define the specialistic programs for the obtaining of professional qualification within the Montenegrin qualification network as well as to accredit at least 3 LLL programmes in total value of 60 credits each.

The Law on Higher Eduaction in Montenegro recognizes the possibility of organizing the LLL courses with the aim of obtaining professional qualification but not the qualification of level. One of the potential risks could reffer to the problems with the formal accreditation of this educational provision due to the lack of awareness or lack of interest in this type of short-term educational offer within the Higher education in

Montenegro. The development of LLL within the HE in Montenegro goes side by side with the fully developed system of e-learning from the perspective of technical support and human resources development as well as with the all other innovative teaching approaches.

1. What could be the potential benefit for the Montenegrin Higher education from the introduction of LLL?

- To enable wider access to higher education
- To incorporate non-formal and informal education into the overarching national qualification framework
- To enhance partnerships with relevant social partners

So, following outcomes and outputs were expected to be achieved:

- legislative framework for the introduction of LLL concept
- cooperation with enterprises in view of LLL concept and university-enterprise cooperation
- learning opportunities for adults, Flexible learning paths for adults
- connections between stakeholders to improve vertical and horizontal access

- basis for introducing procedures for validation of non-formal and informal learning
- comprehensive dissemination campaign on LLL concept in society at large

2. Who might be the main beneficiaries?

- Full and part time students from non traditional backgrounds,
- Mature learners: Returners including either drop-outs or professional up-skilling, mid-career professionals, or senior citizens taking advantage of their increasing pursuing cultural interest.
- Learners with no formal qualifications (e.g. the learners with no formal qualifications who apply for recognition of prior learning),
- Interest-driven population,
- Students with disabilities,
- Ethnic minorities.
- Geographic service area populations, and others.

3. What effects could be created

 Adoption of LLL as a mind-set in the culture of the University and Montenegrin society as a whole

- Strengthen our teaching, scientific research and our service to the society by embedding LLL approach and activi-
- Develop a well-organized and efficient support system with clearly defined processes, competencies, responsibilities, and resources necessary for the implementation of LLL at the University
- · Build and employ synergistic partnerships at different levels to support the conditions, production and delivery of LLL and extend our reach to the new groups of learners
- Improve performance, assessment and accountability of LLL activities and project

4. Open questions and risks

- · From which sources does the University receive the funds necessary for providing LLL?
- To what extent is the revenue dependent upon student fees?
- Does the programme aim at an audience from whom the fee is of minor importance (e.g. programmes for executive levels in companies),
- Is it possible to develop and deliver a course with a high and competitive content that fulfils the quality standards of

the institution for a price that students/ companies are willing to pay?

- Does the delivery format place considerable additional costs on the students (e.g. travelling and accommodation for lab work, exams, study materials),
- · Dedication of Staff, understanding of the importance of different educational provision

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.



THE PROBLEMS OF DOCTORAL **EDUCATION IN MONTENEGRO** IN LIGHT OF MARDS PROJECT

Radovan Stojanović **University of Montenegro**

octoral studies, as one of the most prominent problems in the Montenegrin and Albanian

higher education systems, will be addressed through the project "Reforming doctoral studies in Montenegro and Albania - good practice paradigm (MARDS)". The project belongs to ERASMUS + KA2 scheme - Cooperation for innovation and the exchange of good practices - Higher Education Capacity Building, MARDS worth EUR 873,120.00 and has been planned to be implemented by the University of Montenegro (UoM) in cooperation with 15 partners from Montenegro, Albania and the European Union.

In this article I will talk about the project goals, the situation of doctoral studies in Montenegro, based on initial research carried out within the project, the space for improvement through the MARDS as well as about establishment of two joint doctoral schools in Montenegro and Albania that will serve as pilot programmes. I hope that some of my colleagues will carry out a similar analysis for Albania to ensure the full description of the situation in the countries under the current project.

The main objectives of the MARDS

There are two general goals of the MARDS project.

The first is to improve national policies in the field of doctoral education in Montenegro and Albania, by proposing measures that policy makers and stakeholders need to adopt if they are willing to improve the current situation. The second goal is to start-up two joint doctoral schools; one in Albania, in the field of sustainable development and tourism, and the second one in Montenegro, in the field of sustainable natural sciences and technologies, both as examples of good practice in the Region.

From this perspective the catchword "example of good practice" has been introduced to the title sentence "reform of doctoral studies". The success of the programme in terms of fulfilling our goals does not mainly depend on us. We have the vision and a plan and support of the University of Montenegro management, which coordinate the entire project.

In addition to these two main goals there are several subobjectives: to improve the human and infrastructural capacities by training the teaching and administrative staff with our European partners and to equip partner universities with facilities that will provide on-spot and remote education during the lifetime of the project and upon its completion. A number of other benefits are also available as student mobility,

connection with industry, networking for future projects and initiatives, etc.

From my own experience, indirect values sometimes bring more benefits.

The survey about "state of the art of **Doctoral Education in Montenegro** and Albania"- some findings

In the course of the study maintained within the scope of the project, we examined the advantages, disadvantages, opportunities and risks of doctoral education in Albania and Montenegro.

As for Montenegro, the strengths are the 45 years of tradition in doctoral education, existence of vision and strategy, relatively good academic staff, especially in natural and technical sciences, regulations related to study programmes within doctoral education, defined curricula, small easily collaborative research community, sufficient experience in introducing European practices and intensive international collaboration, strict criteria for mentors, integrated university that provides multidisciplinary work, investment in infrastructure as well as young and motivated students. Last years there is a trial to assist doctoral education is maintained by Ministry of Science.

However, the scarcity of doctoral students because of high tuition fees, neglecting state-based regulations in doctoral education, lack of motivated supervisors, especially in humanities and social sciences workflow mismatch between colleagues and universities, dissonant system of documents flow on college-university level, irrelevance of doctoral degree outside the university, inadequate infrastructure (labs, libraries), inaccessibility to research and scientific databases, inbreeding (reproduction within institution), limited involvement of experts from foreign institutions or industry, insufficient funding, especially by non-academic sector and others are only some of the, overloading doctoral students with teaching activities in their home institutions, limited research mobility and internationalisation, no clustering in research groups etc., are only some of the problems that doctoral education faces in Montenegro.

The space for improvement

As well it is a challenge to improve the situation. The process of capacity building in doctoral education should be carefully planned, taking in account the "bottomup principle". On the other hand, it has to go "step by step" as it is impossible to solve all problems at once. Some of the initial steps for improving the situation are: campaign for promoting doctoral education at national level that means raising awareness of stakeholder and target groups about the necessity of doctoral education in one society; intensive cooperation with foreign institutions; shift from the pure classical training mode to research-based studying; promoting PhD mobility and cooperated research; inviting foreign professors and scientific diaspora to participate in doctoral education; using EU funds as much as possible: motivating the local economy to invest in doctoral education etc....

Normally there are many risks as well. First of all, there is an unacceptably small number of students interested in doctoral education in Montenegro. More and more graduates are pursuing to perform the doctoral education abroad, which is natural for small country. There are plenty of universities in the Region that deliver PhDs of dubious quality, and the Ministry recognises the titles by default. There is a limited number of projects that may foster the recruitment of doctoral students in the country, etc.

Of course, there is a number of other advantages and disadvantages that are more or less noticeable.

Development and funding as main challenges

The complete insight into the state of doctoral studies in any country can be obtained by considering aspects such as legal framework, strategy and vision, statistics, research capacity, structure of doctoral programs, mentoring, selection

of candidates support of business sector, internationalization etc.

Our research went in two directions: examining "states of the art" in the system of doctoral education and in the system of funding doctoral studies. The first one was performed by renowned experts in the field of doctoral education, Dr. Lucas Zinner from the University of Vienna and Prof. Dr Melita Kovacević from the University of Zagreb. They are partners in our project responsible for transfer of "know how" from developing world to our transition situation. Two remaining EU universities, the University of Maribor and the University of Banska Bistrica contributed to the quality control and mobility exchange process within the project. The tool was methodologically designed by Dr Zinner and Dr Kovacevic with the support of team members from University of Montenegro, in the form of questionnaires. The second research track related to the founding was led by Dr Natasa Kostic, Vice-Rector for International Cooperation, from the University of Montenegro and Dr Predrag Miranovic, President of the Centre for Doctoral Studies in close cooperation with responsible ministries in Montenegro and Albania, Ministry of Education of Montenegro, Ministry of Science in Montenegro as well as the Albanian Ministry of Education for Youth and Sport. All institutions involved in the project responded to targeted surveys, which is then statistically analysed using SWOT approach.

The conclusion is that neither of the two Montenegrin universities is satisfied with the current PhD funding model. Doctoral candidates are obliged by the Higher Education Act to pay a fairly high tuition fee which is not affordable for students under existing social and economic conditions in the country. As the consequence of the situation the small amount of students is enrolled in the doctoral programmes. Usually, most of them are associates (teaching assistants) at the faculty units. The budget of academic institutions allocated to the doctoral studies is limited, and the financial flows are not coming from the state budget either. There is no interest from the agencies, business organizations or any other type of public or private institutions to support financially the doctoral studies in the country.

The good momentum is the effort of the Ministry of Science of Montenegro, which for the second year is announcing a competition for doctoral scholarships in Montenegro. The interest to this scholarship has surprisingly exceeded all our expectations.

The self-financing system is not satisfactory because students are under the pressure to earn for their own living rather than get focused on doctoral studies. Serious doctoral studies require time and constant commitment. Running around between work and research commitments leaves no or little space to get concentrated on doctoral studies and undertake a quality doctoral research.

The trainings of the supervisors and professionals

The MARDS project is not limited to providing the "state of the art" in policies of development and founding doctoral studies and implementations of pilot PhD curricula between two countries. The training of the supervisors, administrative staff and others involved in doctoral education is an additional aim of the project. We had or will have a series of the training/seminars. The training related to the management (professional personal) in doctoral studies was organised at the University of Vienna. In Dubrovnik (branch of the University of Zagreb) the training will relate to the Professionalization of PhD Supervision (for experienced and less experienced) PhD supervisors. The topic of the training at University of Banska Bistrica is The methodologies and procedures for joint PhD programmes establishments. The University of Maribor will organise training about Quality of doctoral education, institutional policies and strategies. We consider these training topics crucial

components that affect doctoral education. In particular, we have more problems in Montenegro regarding rather competent administration and meaningful research than dealing with mentors. However, we hopefully will at least be familiar with good practice examples after the training.

Harmonisation with EU standards and Salzburg principles

There are a lot of talks about Salzburg principles. The name by itself says that these are principles, and in my opinion, one should not fall into the trap of Bologna and turn the principles into policies and, let me say, that happens very often, and manipulate with these principles for gaining dividends in daily politics. The Salzburg Principles were adopted in 2005 with the idea of providing a roadmap for the development of the third cycle of higher education in Europe. They can be reflected in: 1. Research Excellence. 2. Attractive Institutional Environment. 3. Interdisciplinary Research Options, 4. Exposure to industry and other relevant employment sectors, 5. International networking, 6. Transferable skills training and 7. Quality Assurance.

It is up to national stakeholders to implement these principles either completely or partially. Undoubtedly, only by implementing all the principles can we achieve critical mass in doctoral education.

Instead of conclusion

The competition for quality PhD education is daily growing in the entire world. Any research university that wants to take a leadership role in higher education should pay a serious attention to doctoral studies. In transition countries like the Western Balkan states, doctoral studies are mainly used to train university teachers. Fundamentally, As such, the process is not beneficial to the public at all. Young people need to understand that investing in doctoral education is a matter of their professional growth, even if they want to be engaged in the economy or start their own business. The state needs to set up criteria for certain jobs that require PhD qualifications. Moreover, the knowledge-based economy should not be just a nice term: it should be an opportunity to practice skills and competences obtained through the doctoral research. The doctoral education must meet the requirement of attaining critical mass, which can be achieved through increasing the internationalization or enhancing the number of joint cross-border programs. This is not about mass education; it is about imparting knowledge to more people to help them to effectively function in the society. MARDS is a pilot project to show how cross-border PhD programmes between two countries can be beneficial and can jointly produce a sustainable solution to many problems

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 Stojanovic:

https://en.wikipedia.org/wiki/Radovan Stojanovi%C4%87

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



Saša Popović **University of Montenegro**

STUDENT-CENTERED **EDUCATION – AN ANALYSIS** OF SOME ASPECTS

n effective reform of higher deducation, in terms of increasing its qualitative output towards the labour market, in the domain of public education, occurs, paradoxically, by the intervention of the

state, not the market. The creators of the Bologna Declaration were certainly aware of the business requirements in relation to the educational system, particularly in a dynamic business environment. But market demands are incorporated into education policies of the Europe, by a "Keynesian" act in the form of a declaration. The signatories of the Declaration are the ministers of Education of 29 European countries, which has enabled various higher education policies to show their potentials in adapting to the market demands.

The harmonization of the educational system and the labour market occurs in accordance with the changes in the whole educational ecosystem. Among other things, it relates to the design and quality of learning outcomes. Learning outcomes are the gravitational point that attracts the interests of various social structures - students, teaching staff, state, local communities, entrepreneurs, scientific and educational institutions, which aspire to unify them.

In social metabolism, every entity is in search of high-quality input, in order to make its final product better. That is the way how businesses, through the labour market, transmit demand impulses to the educational system. In general, it is an ongoing process, which has an oscillatory character, and the biggest socio-economic problems are created by the inability of the labour market to absorb the final products of the educational system. Perhaps the best description of the relation between the educational system and the labour market is the Latin syntagm alma mater, possessing its own original meaning the Goddess who feeds, foster mother. Later, in the early 18th century, this poetic combination of the words in Great Britain has metaphorically transferred to the universities, in that way strengthening their role in satisfying intellectual hunger. Of course, even in that period, but still today, universities have a mission to increase the existential as well as the essential value of education. The mystic Emanuel Swedenborg even considers that a salvation of the intellectual character, while the universities become "pendant" to temples.

The concept well known as Student-Centred Learning and Instruction (SCLI) is one of the pillars of the European Higher Education Area (EHEA). The basis of this concept can be found on the EHEA website: "Student-Centred learning (SCL) is an approach to education, which aims at overcoming some of the problems inherent to more traditional forms of education by focusing on the learner and their needs, rather than being centred around the teacher's input."1 Changing the focus of the educational process from teacher to learner leads to the need of the whole education system to adapt to it. Therefore, it is necessary to improve teaching methods, regularly update

¹ http://www.ehea.info/page-student-centred-learning

scientific sources, make curricula flexible enough to enable students to make choices, modernize the content of teaching disciplines, use modern technology that supports the educational process, innovate pedagogic methods, create specific knowledge assessment techniques. increase the academic mobility and so on.

The aforementioned concept enables the student to play an active role in the education triangle: teaching-learningassessment. Each of the three aspects should challenge the higher education institutions to reconsider them from the user's perspective - student and give them the possibility of expressing and integrating their needs into them. This should help student to develop individual skills and competences, acquire up-to-date knowledge and competitive competences during the study period. Obviously, SCLI as a paradigmatic pedagogic model aims at creating an educational environment in which all the entities can make the greatest contribution to the achievement of the learning outcomes that raise the economic and intellectual value of the individual and society as a whole.

As the issue is quite complex and its analysis requires more space, on the occasion, the focus is on some practical problems related to the (in)abilities of implementing this concept from the focal points view - professors and students.

Let's start with the lecture and a teacher, who are in the traditional educational model placed at its center. Repetitio est mater studiorum² could be the motto of the traditional, i.e. conventional model of the knowledge transfer. Memorization, with a tendency of reducing content (scripts, slides) and context (excessive fragmentation) of the acquired knowledge - in this way, students become the "whisperers" of the scientific truth. Their answers remind us of the text of some author, and the students are trying to be as authentic as possible. The aim of the evaluation is to evaluate the authenticity.

Derek Bok notes that "professors (are) the driving force of these (higher education) institutions. The capacity of the universities to attract good students, provide financial support for research, maintain and improve its reputation for high quality relies on teaching staff."3 That is the reason why professors have to redefine their role in the process they are responsible for. What SCLI suggests is, instead of a recipe transfer, which fits the traditional approach, to study and use the tools for resolving scientific and professional problems.

In order to enable the student to take an active role in designing the educational process, professors must come out of their passivity, which is best expressed by the attitude: "I will always teach what I know best!". That passive approach of the teacher, in terms of placing the focus of his/her lectures on the problem where he/she feels safe, widens the generation gap between teachers and students. Garry Jacobs says: "Education is also subject to a generational time wrap resulting from the fact that many of today's teachers were educated decades ago during very different times and based on different values and perspectives. The challenge of preparing youth for the future is exasperated by the fact that the future for which we are educating youth does not exist and to a large extend is unknown or unknowable." I agree with him, but Jacobs' conclusion is only valid in the case of a teacher who is not studying his/ her professional field anymore. Only a teacher who does not want a continuing education, falls into the generation gap. For the sake of example, when it comes to statistics, the reliability of the results increases with an increase of the sample size or the length of time series, therefore we expect that a teacher who has more life and professional experience can transfer to a student more reliable conclusions and recommendations related to the problems they are studying. The future is unknown or unknowable to both teachers and students.

On the other hand, placing the student at the center of the educational process is a great challenge for the students as well. If we assess quality of the student by the level of his cognitive skills, the quality of his/her previously acquired knowledge, his/her courage to be suspicious of the facts, creativity in searching for a solution, openness to ask the questions, readiness to make mistakes wit-

² Lat. Repetitio est mater studiorum

Derek Bok, Universities in the Marketplace, pg 94

hout feeling like committing a sin, then are we satisfied with our students? Can a student grade be an indicator of quality? Bearing in mind that education is a multilayered process, then it is wrong to call an exam success indicator a "student grade". What we call a student grade is actually an aggregate success indicator of the student-professor, society-professor, society-student relation etc. It is a simultaneous evaluation of all these relations which a student is not the only person responsible for.

Besides, the quality assessment of teachers, which is conducted on the basis of student surveys and interviews has serious methodological disadvantages in conditions of low student attendance at the lectures, exercises, laboratory practice and so on. Since this assessment is also an aggregate indicator of the teaching success, it usually happens that the evaluator is not representative enough to evaluate. When we take into account the involvement of students in the governing structures of the university, we can conclude that, expressed as a percentage, more students are represented in the Council of organizational units4 than at the lectures.

In one of my previously published essays⁵. I state that creation is a union of knowledge and imagination, which can be tested by some pragmatic experiment. Creativity is not an attribute of the traditional model of education. Even critical thinking is not. It is rather a kind of criticism without offering a solution. Of course, it is always easier to say a critical NO, than a creative YES. Creativity is the basis of the innovation process, and that is the reason why it is necessary that the SCLI approach to the educational process fosters students' creativity in problem thinking and problem solving.

The interactivity of teachers and students is one of the most important aspects when it comes to fostering creativity. It includes working in small groups or individually, in the conditions that stimulate students' individuality (e.g. premises where it is possible to (re)group and change the roles of lecturers and audience, etc.). But even the TEDx speakers, conference lecturers, and others who discuss this issue do so by standing in front of the audience sitting on fixed benches, where it is not possible to organize the physical grouping of the audience, or where the space between the speaker and audience is roughly limited by an empty space or podium. Both the empty space and the

podium have their symbolic values, the first one - an insurmountable gap, the prohibited zone between the speakers. or the untouchability of the speakers by the audience (Noli me tangere!6), and the second one - the hierarchical relation between them. The creativity that SCLI implies, among other things, requests technical and spatial conditions, in order to enable this approach to show its supremacy over the traditional one.

The concept of life-wide learning (LWL) should be added to the concept of lifelong learning (LLL), not only in terms of student learning in real conditions and authentic circumstances, but also in terms of interdisciplinarity and multidisciplinarity in learning. In that way, for example, the link between mathematics and music, finances and physiology can be easily perceived. The game element in fostering creativity is also very important. Homo ludens is inside everyone of us, and learning can be serious and inspiring by applying some game model. i.e. fun.

The problem of refocusing in the educational process, i.e. the shift from a teacher to a student as the central point of this process, inevitably leads to

UoM Statute, Article 63, paragraph 2, item 5, foresees the number of students in the Council of the organizational unit: "student representatives, 20% of the total number of the Council members..."

Saša Popović, O kreativnosti i ekonomiji znanja, pg 48.

Noli me tangere! - Latin version of the words spoken by Jesus Christ adressing Mary Magdalene, when she recognized him on the Cross, after the Crucifixion

the consideration of the conditions in which this shift is achieved. The conceptualisation of the educational process relies on the market principle of competition, which, in the economic context, is already considered archaic and implies cooperation. Commercialization in general, but particularly when it comes to education, must always take into account the ethical dimension, "SCLL ecosystem cannot be established in an academic environment which is not fully committed to the highest standards of academic integrity and ethical behaviour. Breaches of such standards, for example, by tolerating plagiarism, cheating on exams, etc., undermine and hamper implementation of SCLI."7

I still stick to my earlier belief that in the societies which are progressing, theory creates the best practice, and practice tests the best theory. When it comes to fostering this unity, the role of university is important. The etymology of the word "university" leads us to the Latin origin of this word - universus, which means whole and comprehensive. Therefore, universities should unify all different perspectives on life and world. Besides, from microbes to the universe, there are only a few steps of generalization.

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The Statute of the University of Montenegro

Saša Popović, Ph.D., is a full professor at University of Montenegro, School of Economics, where he holds the position of Head of the Department of Finance. He earned a B.Sc. in Economics and Business at the University of Montenegro and an M.Sc. in Economics and Finance at the University of Belarade. Part of his M.Sc. research was conducted at the Birkbeck College, University of London. Upon receiving a Ph.D. specialization in Finance and Portfolio Analysis at the University of Belgrade, he conducted his postdoctoral research at Columbia University, USA, as a Fulbright Fellow. Currently, he teaches Financial Management, Corporate Finance, Portfolio Management and Stock Market Analysis. He has wide-ranging practical experience in finance, investing, sustainable development etc He also had the position of portfolio manager at UNDP Montenegro. He is an associate fellow of the World Academy of Art and Science (WAAS) and ex-president of the Montenegrin Association of Economists. Currently he is a member of the Montenegro Higher Education reform Expert (HERE) team, as well as Board of Doctoral Studies at University of Montenegro.

Mania Klemenčič. A kevnote at the XX Anniversary of the Bologna Process. Bologna, 2019



MONTENEGRO AND ACADEMIC INTEGRITY

Mubera Kurpejović **Ministry of Education**

ontenegro is the first coun-IV try to regulate the matter of academic integrity by a separate law. This determination was preceded by a Feasibility study on the proposed tailor-made system(s)

for the prevention of plagiarism in Montenegro, which included a recommendation to adopt the separate law. The cooperation between all relevant institutions in the process of drafting the Proposal for the Law, as well as the involvement of experts provided through HERIC project and cooperation with the Council of Europe, give an added value to the Law on Academic Integrity.

The Law, adopted by the Parliament in March of the current year, defines the principles of academic integrity of teachers, associates, students, as well as other persons with higher education. It also includes forms of academic integrity violation and the procedure for academic integrity protection, aimed at preserving and improving the higher education quality.

Plagiarism has been recognized as the most common form of academic integrity violation. It implies taking someone else's work of authorship or part of it, someone else's important scientific findings or their parts, hypotheses, theories, scientific procedures, data obtained through scientific research, without referencing the author, or conducting other similar activities, and presenting them as authentic works for the purpose of obtaining personal gain.

A work found by the competent authority to be plagiarised is considered null and void, as are the grades, awards, titles and ranks a person has acquired based on such work. It should be noted that plagiarism is treated as a criminal offence by a separate law.

The Law on Academic Integrity also deals with other forms of academic integrity violation, such as: direct plagiarism; selfplagiarism; paraphrasing without reference; fabrication; forgery in scientific research; out-of-context citation and ghostwriting.

In accordance with the Law, higher education institutions define additional forms of academic integrity violation by their acts, in order to protect the reputation of institutions and the overall higher education.

The Law prescribes that the activities of preserving, improving, strengthening, protecting and promoting academic integrity, as well as preventing plagiarism, will be performed by the Ethics Committee, which is appointed and dismissed by the Government of Montenegro for a period of four years. The role of the Ethics Committee is of particular importance for promoting academic integrity, adopting the Ethics Charter, as well as for detecting violations of academic integrity outside of Montenegro. For the first time, Montenegro will have a national body to address such important matters in the field of higher education, composed of prominent members of the academic community. Furthermore, former Courts of Honour will be replaced by Ethics Boards and all higher

education institutions are obliged to harmonize their acts and organization with the new legislation.

The Law also clearly prescribes the procedure of determining the violation of academic integrity, as well as clear measures, i.e. sanctions in case of such an act, all in accordance with the Law and acts of the institution. Graduation papers are subject to the verification procedure in line with the institutions' rules, while the master's and doctoral theses are subject to mandatory originality check. By carrying out the identical procedure at all higher education institutions, while ensuring the use of software, Montenegrin higher education institutions can more easily control the papers in order to identify potential plagiarism. All authors will also sign a statement confirming under criminal and material responsibility that this is their authentic work. The law, moreover, recognizes the responsibility of mentors in line with the specific act of the institution.

The purpose of such commitment is not to sanction and punish individuals, but

to raise awareness about the importance of integrity and the harm of violating the highest moral principles.

The integrity contributes not only to enhancing the reputation of institutions, but also to improving the quality of the education system.

The period ahead of Montenegro and all education sector actors will also show the willingness of the society to properly implement the Law and combat harmful effects on education through the transparent work of the Ethics Committee, institutions and members of the academic community. Only through good synergy, knowledge of how to write papers and adherence to academic principles can we achieve the desired goals and prevent a violation of academic integrity.

The adoption of the Law on Academic Integrity is a confirmation of the country's determination to pursue integrity in a systematic and high-quality manner, thereby impacting the society's awareness about this important institute, and is in line with the recommendations for Chapter 26 and Chapter 23 in the field of quality improvement, reducing corruption in education and increasing transparency in the work of higher education institutions.

Mubera Kurpejović (1982 Rožaje, Montenegro) is Deputy Minister and Director-General of the Directorate for Higher Education in Montenegrin Ministry of Education. She grauged from Faculty of Law at University of Montenegro and won some inportant 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, Commission for European Integration and Boad for Join and Stabilization. She took part in numerous projects financed by European fonds and World Bank. She speaks English and Russian.



Melita Kovačević **University of Zagreb**

UNIVERSITIES RANKING OPPORTUNITIES, CHALLENGES, HREATS

■ igher education system has been undergoing many changes for more than a two decades

and universities have been facing a number of challenges and new demands. A role of academic leadership tremendoulsy changed. A high level of internationalisation of higher education institutions as well as intensified globalisation of higher education, brought not only more collaboration among institutions, but much more competition as well. Last decade in Europe, and globally, a ranking bacame one of the main topics for academic leaders, it had a strong impact on strategic thinking, influenced many governmental decisions, governed a distribution of funding and put a lot of pressure on individual researches and academic staff. Ranking became for many institutions love and hate relationship. There are those who are very fond of ranking, some institutions are very proud of their positions, they strategically focus on ranking, but there are also those, both institutions and individuals, who perceive rankings as a wrong way to reach quality, those who stresses different attributes of universities and their relevance in education process, those who think that ranking is a short-sighted. Whom to believe? Which path to follow?

A few years ago, Jeffrey Brenzel, Dean of Admissions at Yale from 2005-2013, stated that college ranking lists are of limited value to students due to the fact that very often ranking is based in factors that are very limited importance for students. He even said that simplicity and clarity of ranking systems are not only misleading, but can be also harmful. Of course, there are different attitudes toward rankings. Some universities, even governments, adopt strategies and their action plans in order to achieve certain positions on ranking lists either in a short- or long-term planning. Proponents of rankings see the benefits not only for institutions themselves, but as a main advantage they see that ranking provides parents with valid information on a quality of education for their children. We have to notice that this is more true for the universities in the USA, than in Europe, in between other reasons, due to the fact that access to higher education in Europe is mainly free or with much lower fees than in the States.

On the other side, rankings provide some advantages for users. Ranking lists are giving a quick, ready to use information on quality of the institution. A reader can relatively easy identify the group of the best, or better, and the worse, or less successful, universities across the world. Unlike various university classifications that aim to group universities by type or to guide, namely provide information on individual institutions, they are offering ranking order of the universities from best to worst according to their criteria. However, to which ranking list to refer, it is up to the particular institution, bearing in mind that different ranking lists might bring very different information and that they are based not necessarily on the

same or complementary information. But than again, what does it mean? How to select among them and how to use the provided information? It is also justified to ask ourselves if the ranking lists are equally relevant for different educational and social contexts. Or should the information be used as some kind of guidelines or a valid, reliable information for governmental decisions?

Whatever is the motivation to use ranking as a source of information on quality of higher education institution, and regardless if the ranking is used for personal reasons or on the institutional level and/ or information to help shaping policy and strategic documents it is very important to be well informed on criteria that each ranking is using as well to be familiarised with methodology of a particular ranking. This kind of approach will definitely help to reach an adequate level of transparency and better understanding

of the meaning of the ranking order. Each ranking system has certain advantages, but also disadvantages. In order to use information properly, and if one is acquainted with its limitations, it will be also better prepared to implement it adequately.

The fact is that university quality could be measured according to the set of criteria. The issue is what criteria are selected as well as how the information are collected. The starting point is that rankings are primarily focused on research data. and when, and if they look at the student body, they are predominantly focused on undergraduate students. Even within research output, all the research fields are not in the same position. Rankings are much more focused on natural science, life science, science in general, much less on technical science, and very little on research output in humanities and social sciences. Teaching and quality related to the educational perspective is neglected. Often, the data are not always the newest one neither totally accurate. Number of analysis of different rankings showed that collected data are often those that can be reached, not necessarily the full range of acurate data.

All those facts that have been reported in number of analysis warn a reader to use rankings very carefully. In addition to that, university leaders should consider with a lot of care what is the institutional mission, which fields of science and education the university is covering, the role of the institution for local, national knowledge development and institutional overall role for the society. There is about 18 000 higher education institutions, and the best 100 is only 0,5% of all the HE institutions in the world. What about the rest? When using the ranking results we need to be aware that we are facing proliferation of different types of rankings. Global rankings coincided with acceleration of globalisation process. Frequently, ranking lists have been used as a measure of economic power. Some governments are very much occupied with rankings of their higher education institutions. They take ranking as an easy rewarding system for the achievements of the existing higher education institutions. Just as an example, Putin reported on a plan to have Russian HE institutions among the first five till 2020 (will it happen?), or Japanese government reported on a plan to be among the first 10 till 2023 (they still have some time to meet the goal). The fact is that the rankings are focused primarily on a very limited number of elitist institutions and they are mostly concentrated on publications, citations and academic reputation. Many critics of rankings point to a possibility to manipulate with the data and information that are being used, and even more, universities 'learn' how to provide resources and to manipulate rankings.

Still, we should not ignore positive aspects of rankings. Ranking might help in choosing a right institution to get education, it motivates an institution to be concentrated on quality, and definitely emphasises the importance of research and, accordingly supports more research of a higher quality. Ranking can also facilitate different distribution of money and motivate the government to invest more into research; it can have an impact on decrease of number of students entering university as well as to pay more attention to completion rate; being exposed to ranking, institutions become more systematic in collecting data.

Ranking is present and it has been reality in the area of higher education for last fifteen years. Like it or not, ranking influenced number of decisions related to higher education and it had a significant impact on academic leaders. Each university has to explore all the advantages and disadvantages of rankings and to position itself. It might be relevant to analyse the role of ranking, for example in big countries that have couple of hundreds of HE institutions, compared to those that have less than dozen; or, do ranking has the additional disadvantages or disadvantages in smaller academic communities; or what could be a motivation to do ranking in a smaller academic context? Not less important is to find a best way and to balance a need to collaborate and at the same time to compete, remembering that competition can be only achieved with a sufficient level of research capacity. It should be kept in mind that global and national rankings do have different roles.

European universities have a new challenge. European universities initiative, being put in force this fall with 17 new alliances, embracing 114 universities from 25 EU member states is turning a new page. It will bring European universities together and it will increase international competitiveness of European higher education. European university initiative is at the beginning of its implementation, but it is certain that education is regaining attention. It might be that rankings as it has been defined so far will need to be redefined in a near future. It might become more comprehensive and to better balance different components of higher education process.

Melita Kovačević is former Vice-Rector for Research and Technology at the University of Zagreb (2006-2014) and is Full Professor at the Department of Speech and Language Pathology. She is Head of the Laboratory for Psycholinguistic Research and Director of the Interdisciplinary Doctoral Programme Language and Cognitive Neuroscience. Melita Kovačević held research and visiting positions at different European and American universities and is a member of various national and international societies. Until 2016, she was Chair of the Steering Committee of the European University Association Council for Doctoral Education (EUA-CDE). She has been a member of different national and European bodies related to higher education. She has been very frequently invited to give talks on different topics related to HE and HE reforms, home and abroad. She is a recognized European expert of higher education and also a member of the Advisory Board of the Regional Platform for Benchmarking Cooperation in Higher Education and Research.



Jelena Knežević **University of Montenegro**

THE POSITION OF HUMANITIES IN EUROPEAN RESEARCH AREA (ERA) AND IN MONTENGRO

"By addressing the most fundamental questions of human history, culture and identity, and by promoting the values of curiosity, critical thinking and intellectual tolerance, humanities-led research provides crucial insights relevant to all areas of human endeavour."

HFRA Motto

hat European humanities research needs help through funding, collaboration and advocacy is not a new issue in the Eropean Research Area. The inclusion of the humanities in the Framework Programme (FP7) in 2007 heightened their role for the first time in the history of these programmes. After that the numerous research strategies have been developed exclusively for humanities. Their status and relation to social science have been rethought and major trends and developments in the fields of humanities have been monitored. Moreover, the concept of embedding humanities research across scientific projects have been recently encouraged while concidered essential to "maximize the returns to society from investment in science and technology" (European Commission, 2016). As source of creativity and innovation humanities research is fully integrated into each of the general objectives of Horizon

2020. At the same time studying humanities in Montenegro is often seen as unnecessary expensive investment while study programes are being closed or threatened as well as foreign language courses across state university. Humanities research is discredited as self-centered and since without measurable output its significance is is not acknowledged. Apart from arts and social sciences very low percentage of the projects in the field of humanities is financed within the national framework, although following the social sciences the most researchers in Montenegro are active in humanities (Roadmap Montenegro revised 2016, 13).

The contemporary unerstanding of humanites is based on the fact that is impossible to make a strict distinction between the humanities and the social sciences. That wide accepted inclusive concept comprises following disciplines: "modern and classical language, linguistics, literature, history, political theory, jurisprudence, philosophy, anthropology, archaeology, comparative religion, ethics, the history, criticism and theory of the arts, media and cultural studies, aspects of social sciences with humanistic content and humanistic methods, and the study and application of the humanities to the human environment – with particular attention to reflecting our diverse heritage, traditions and history, and to the relevance of the humanities to the current conditions of national life" (National Foundation on the Arts and the Humanities Act, 1965, as amended). Being accused for lacking economic relevance and having no purpose, humanities were under-represented

in European Framework Programmes for more than three decades and brought in the position to justify themselves demonstrating how society, employers and individuals benefit from both studying and research humanities. However, the situation in Europe started to change with perception that the humanities become increasingly interdisciplinary and also hybrid: "approaches from the social and even the natural sciences are combined to analyze and interpret the expressions of the human mind" (Bod, 2013). Subsequently, in 2002 the Danish, Dutch and Irish Research Councils established a European Network of Research Councils aimed at co-ordinating support for humanities research across Europe. Transformed and enlarged that network is today the most influential partnership between 26 Humanities Research Councils across Europe and the European Commission called HERA – Humanities in the European Research Area. With the main objective of firmly establishing the humanities in the ERA the network is committed to the view "that historical, cultural, artistic and philosophical knowledge is indispensable for understanding humanity's past, for dealing with the key societal challenges of the present, and for imagining possible futures" (HERA Mission). Committed also to leading and developing funding opportunities for humanities researchers in

Europe HERA has supported more than 70 transnational humanities-led research projects to the value of €1 million since 2009. Some of them that are also applicable to our social and cultural conditions are: The Role of Language in the Transnational Formation of Romani Identity, Sharing Ancient Wisdoms: Exploring the Tradition of Greek and Arabic Wisdom Literatures, Copywriting Creativity: Creative Values, Cultural Heritage Institutions and Systems of Intellectual Property, Travelling Texts 1790-1914: The Transnational Reception of Women's Writing at the Fringes of Europe, Festivals, events and inclusive urban public spaces in Europe, Accessing Campscapes: Inclusive Strategies for using European Conflicted Heritage Sites etc.

Those examples demonstrate at the same time in wich way humanities can deepen our understanding of the world around us, as well as of others and our important unique role in a civil, humanistic society (DC Humanities). The humanities help us understand ourselves as well as others through language, history and culture. They help us reveal how people have tried to make moral, spiritual and intellectual sense of the world and teach us to deal critically and logically with subjective. complex, imperfect information encouraging us to think creatively (Rice, 2014). In times of increasing rationalization and social control only arts and humanities

are able to see human intelligence and spirituality as not necesserily opposed. Humanities do not measure and objectivize, they raise questions, disscus and "teach us to weigh evidence skeptically considering more than one side of every question" (Ibidem).

Those are only some of conclusions of international self-reflective studies and surveys within the scholarship in the field of humanistics, which is on the rise in Europe. Bearing that in mind montenegrin academic community should articulate the crucial points of discussion concerning the tasks and social impact of humanites in Montenegro (apart from art and social sciences!) and further highlight the fact that this field is seriously under-represented in international projects and in the national research environment. Instead of demanding humanities research to have immediate and measurable results and tangible outcomes the universites in Montenegro could develop a know-how for drafting a successful research project in the field of humanities and encourage joint interdisciplinary and cross-disciplinary research projects as well as embedding humanities where they are - considering national priorities - most needed. Here some research and project fields where humanities could benefit montenegrin society: strengthening teaching and learning in schools and universites,

providing opportunities for lifelong learning, preserving and providing access to cultural, historical and educational resources, preserving and promoting montenegrin identity based on lingusitic, historical and cultural research as well as on heritage of multiculturalism.

Considering the fact that the future of the humanities is discussed by focusing on three current trends: the cognitive turn, the digital approach, and the integration with the (social) sciences (Bod, 2014) Montenegro should start encouraging relevant projects with international partners in the fields mentioned above, but also develope some extra fonds for financing the humanistics research from exclusively national relevance and aknoweledging their results. Integrating mentioned humanistics aspects into the design, development and implementation of research itself can help understand better our historical and cultural heritage and find solutions to current societal issues.

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Jelena Knežević was born in 1977 in Novi Sad. Literary theorist and assistant professor for German literature at the University of Montenegro, Faculty of Philology. Through various projects works on fostering interntionalization of studies at the Faculty of Philology as well as on presentation of Montenegrin literature in Europe. Teaches also at the University of Begrade- Publishes in the filed of comparative literature, German studies and contemporary German and Montenegrin literature, translates from German. Member of HERE since 2017.

Projects

ELECTRICAL ENERGY MARKETS AND ENGINEERING EDUCATION (ELEMEND)

elemend

Adis Balota Mediterranean University

he new paradigms of electricity grids and markets require that staff employed in electrical energy related jobs as well as electricity end users are properly educated and trained. The electrical engineering curricula in WBC are still in a traditional form, serving the conventional model of one large scale power grid, owned and operated by one company. It is necessary to change and adapt such concept to modern trends in power grids and electricity market.

In such manner, ELEMEND is designed to facilitate electrical engineering curricula in WBC to be competitive through teaching and training in smart gird and micro-grid technologies and electricity markets. It is planned to develop new and/or update existing courses at the BSc level and a MSc program. In order to realize planned, academic and technical staff need to be trained, new ICT tools, such as e-learning platforms and gamified content combined with blended learning, need to be introduced. Stronger internship program for the most motivated ELEMEND students and University - enterprise network that will be created should also help to achieve main project goals.

The ELEMEND project will help universities to create new laboratories that will be accessible to all partners. So it is expecting to provide ELEMEND students practical knowledge, which should increase employability rate. E-learning courses, the gamified applications, the virtual labs, the new courses are expected to engage new students and relevant target groups after the lifetime of the project as well as enhance public's awareness.

ELEMEND aims to provide partner countries (Bosnia & Herzegovina, Serbia, Montenegro and Kosovo) with high profile professionals in intelligent microgrid technologies and emerging electrical energy markets in line with societal and market needs in the Western Balkans. Capacity building in engineering academic staff and students as well as in the general public (through dissemination activities) will create a favorable environment for energy related business and will modify the electricity user's behavior.

More specifically the ELEMEND objectives are:

- To increase capacity building for study in smart grids offered both in English and in local languages at BSc and MSc level at 9 WBC HEIs.
- To develop, accredit and implement new courses in smart grids at the BSc and MSc level in the field of smart grids and electricity market according to Bologna requirements and the new developments in smart grids
- To introduce new ICT tools as a selflearning tools in participating WBC institutions
- > To increase employability by targeting WBC labor market needs in smart grid field

WESTERN BALKANS ACADEMIC EDUCATION **EVOLUTION AND PROFESSIONAL'S** SUSTAINABLE TRAINING FOR SPATIAL DATA INFRASTRUCTURES (BESTSDI)

B ESTSDI project is Erasmus+ KA2 CBHE project awarded within the call 2016 to the consortium of academic institutions coordinated by University of Zagreb and its Faculty of Geodesy, Croatia.

The wider objective of the BESTSDI project is to improve the quality of higher education in Geographical Science and Technology field, SDI and geodesy, enhance its relevance for the labor market and society and to improve the level of competences and skills in higher education institutions by developing new and innovative education programs within the field of SDI.

The specific project objectives are to develop, test and adapt new curricula, courses, learning material and tools within the field of SDI. In doing so, existing undergraduate and graduate geodesy and geoinformatics curricula's in the academic institutions in the Western Balkan region will be lifted to higher levels, recognizing the importance of spatial data for modern society and its development. The objective is to create framework that facilitates easier access to and use of geo information, through development of the system to support geo data harmonization and interoperability using standards. Spatial Data are very important and integral part of our everyday life. Technically speaking, spatial data refer to any kind of data, which have a spatial aspect or a spatial representation. However, spatial data often include not only spatial, but environmental, health or security data at the same time. The need for geospatial data has increased in Montenegro in the last few years. By accepting new trends and technological achievements, requests for data in analogue form are neglectable compared to requests for data in electronic form, which implies the conclusion that there is a need to digitize available data.

User requirements for SDI are no longer just applicable to conventional charts, charts, etc. forms, but to up-to-date, geometrically accurate and easily accessible spatial data in digital format. Due to the fact that 80% of information is associated with a spatial component, spatial data and their distribution become of general interest. It is based on a large number of different human activities, including agriculture, transport and public infrastructure, telecommunications, environmental protection and real estate

Goran Barović **University of Montenegro**

markets on them. The increasing demand of users as well as the increasing volume of spatial data with regard to modern technology for their collection has stimulated the development and building of spatial data management systems, known as spatial data infrastructures or geoinformation infrastructures worldwide. Their development is made possible by exceptional technological advances in the field of computer and communication technologies.

The growing demand of users as well as the increasing volume of spatial data with regard to their modern collection technology has stimulated the development and construction of spatial data management systems, known as spatial data infrastructures or geoinformation infrastructures worldwide. Special emphasis through BESTSDI project has been put on the development of materials for lifelong, but also to introduce the assumption that we will always be able to improve the situation in the development of SDI through continuous improvement of the staff who are working on its development

READY FOR BUSINESS - INTEGRATING AND VALIDATING PRACTICAL ENTREPRENEUR-SHIP SKILLS IN ENGINEERING AND ICT STUDIES (REBUS)



The European business ambient pays more and more attention to the competence related development of entrepreneurship. These competences play the most important role in the EU's neighbouring countries in their developmental path towards the market oriented economies and adjustment to the economic and social standards of the European Union. The goal of the project is to develop entrepreneurial competences for the students of technical and ICT studies in the countries of the West Balkans and Russia.

Rebus project has offered both the lecturers and students one quite new training experience through so-called Blended Learning which included F2F (face to face) training, E-learning and the training in real business environments. These trainings were executed by university professors from the EU's partner countries. During the project realization, 3 professors from the University of Montenegro had underwent this type of training on entrepreneurship. Their role was to create learning modules on entrepreneurship for 2 generations of students (30 students in total) in their home institution, and to adjust the selected ECTS catalogues of companies in order to provide the project feasibility and entrepreneurship promotion. In this way, a set of innovative, entrepreneurship-oriented training modules which are fairly integrated in the existing plans and programmes, were developed through the REBUS project.

The validation system for competences was established by the project in its final phase, what has resulted in issuing certificates for the developed entrepreneurial competencies to the students who underwent all the training phases. The Rebus certificates, attained through the trainings created and realized by the EU partners, give proofs for gained entrepreneurial competencies, and they also represent strong references in the students' curriculum vitae, what can open many doors on the European labour market.

The Rebus project has enabled the students to gain knowledge and skills for testing and development of entrepreneurial ideas, as well as to develop their self-confidence to start their own businesses. Enthusiasm in initiation of their own business shown by these students of UoM after the training realized during the first phase of Rebus project make us

Jelena Jovanović University of Montenegro

believe that our students will more and more tend to create their own companies instead of searching for a "safe job" in public institutions.

The necessity of the incorporating subiect of entrepreneurship in the education system of all, especially engineering and ICT studies, is reflected in the fact that the subjects and results of learning on study programme must give the students necessary knowledge, skills and competencies needed for their best possible inclusion on the labour market. Additionally, it should be noted that new study modules in no case should educate the students only for domestic, instead they should be trained for a fairly larger market. Hence, the goal of the introducing entrepreneurship in the education system is that the students gain knowledge about innovations and strengthening of competition, as well as develop creativity towards the implementation of new ideas on the labour market.

KEEP EDUCATING YOURSELF



Veselin Mićanović **University of Montenegro**

The Project KEEP EDUCATING YOUR-SELF (KEY) resulted from the need to establish the centres of training of teachers/preschool teachers in education systems of Montenegro and Serbia. KEY project aims to establish centres for lifelong professional development of teachers/preschool teachers, and to offer innovative CPD courses.

The establishment of centers for teachers/ preschool teachers training at higher education institutions participating in the project is one of its main outcomes. Centers for training and professional development of teachers will be of great importance for the development of the teachers/preschool teachers' profession through the improvement of competencies and skills all teachers need for high quality teaching and learning in the 21st century.

The general objective of the KEY project is to strengthen the role of teacher training HEIs in continuous preschool professional development (CPD) system in Serbia and in Montenegro.

The general objective sets the ground for > preschool teaching HEIs to influence the creation of and promote CPD for preschool teachers and professionals vis-a-vis local communities. In doing so the project adresses the existing gaps between the ECEC related educational outocomes and actual labor market needs while at the same time it increases capacities of local governments to exercise their roles in ECEC education and approach EU funding opportunities.

The project specific objectives are as follows:

To establish the centers for professional development within participating HEIs in Serbia and Montenegro (this specific objective broadens and modernises the existing preschool teachers training offer, makes it more selective and better linked with expected competences framework and professional/practictioners reguirements)

- To prepare relevant CPD courses for students and practitioners
- To build the capacity across the CPD sector for monitoring, evaluation and quality assurance (This specific objective contributes to identifying parametres for practical use of knowledge gained through preschool teachers training programs)
- To prepare a CPD model for accreditation standards in Serbia and Montenegro

STRENGTHENING OF MASTER CURRICULA IN WATER RESOURCES MANAGEMENT FOR THE WESTERN BALKANS HEIS AND STAKEHOLDERS (SWARM)



Goran Sekulić **University of Montenegro**

A later is a key driver of economic and social development while it also has a basic function in maintaining the integrity of the natural environment. Water as the basic resource incorporated into functioning of different sectors requires innovative, interdisciplinary, structural, and trans-boundary approach - strong coordination and cooperation across countries and across sectors. Water resource management is a very important issue from several angles such as development of water bodies for future, protection of available water bodies from pollution and over exploitation and to prevent disputes.

Montenegro on its path to EU accession should harmonize procedures with EU water management requirements in line with Chapter 27 - to converge national rules and standards towards a single framework of EU water legislation.

The wider objective of the SWARM Erasmus project is to improve the quality of higher education in Water Resources

Management field, strengthen its relevance for the labour market and society, enhancing the level of competences and skills of experts for Water Resources Management by improvement of existing master curricula at the University of Montenegro - Faculty of Civil Engineering, in line with FU trends.

This wider objective is fully compliant with the priorities of the Capacity Building projects within the Erasmus + program. Besides day-by-day visible outcomes (reports, analyses, trainings, action plans, etc.), more prominent outputs showing to what extent the project objectives are met will be:

- modernized master curricula and modules at the University of Montenegro - Faculty of Civil Engineering, in accordance with the highest EU standards.
- Contemporary equipped laboratories for studies in the field of Water Re-

sources Management at the Faculty of Civil Engineering,

- Retrained teaching staff with up-todate knowledge in Water Resources Management to teach on the improved master programme,
- Developed and conducted for professionals in water sector.
- SWARM supports the modernization, accessibility, and internationalization of higher education in the field of Water Resource Management at the University of Montenegro.

Since the background for the foreseen activities is in accordance with EU standards and the best practices it is expected that all partner universities will educate experts with adequate knowledge and competences, which will be able to employ in relevant institutions for Water Resources Management.

IMPROVING THE TRAFFIC SAFETY IN THE WESTERN BALKAN COUNTRIES THROUGH CURRICULUM INNOVATION AND DEVELOPMENT OF **UNDERGRADUATE AND MASTER STUDIES (TRAFSAF)**

Participation of The University of Montenegro – The Faculty of Mechanical Engineering into the project "Improving the Traffic Safety in the Western Balkan Countries through Curriculum Innovation and Development of Undergraduate and Master Studies" is immensely important for the development of the basic and master studies on the study program - Road transport at The Faculty of Mechanical Engineering in Podgorica.

Among the rest, the goal this project is the adjustment of study programs and the programs of the basic and master studies of Road transport subject at the universities in the countries of West Balkans, participating in the project, what creates an opportunity for easier mobility of students of Road transport.

The existing study programs and the programs of basic and master studies were analysed through the work on this project, as well as their concordance with the study programs and the programs of partner countries.

Based on this analysis, it was concluded that the study programs and the programs of the basic and master studies that are realized within the study program of Road transport at The Faculty of Mechanical

Engineering on The University of Montenegro, must be innovated.

This innovation should comprise the introduction and replacement of certain number of subjects, what, after mutual agreement among the participants in the TRASAF project, resulted in the recommendation for the change of the existing study plans and programs.

During the work meetings, the participants in the project were acquainted with the states of technical equipment in laboratories in the partner countries from the EU.

> what also was one of very important phases of the work on the project which should result in the betterment and improvement of the equipment of these laboratories.

In the concordance with the abovementioned, the acquainting and visiting of the laboratories has offered our students to really see the needs for laboratory equipment, on the basis of which the activities that should lead to the modernization of the equipment, namely the equipment which would to the great extent enable the comparison of the state of the equipment at the Faculty of Mechanical engineering of the University of Montenegro with the universities from the partner countries from The West Balkans, were planned.

Sreten Simović **University of Montenegro**

A special and irreplaceable importance we see in the participation in TRASAF project is related to the conditions where we got an opportunity for exchange our experiences and practices used in the education of engineers in road transport subjects in the EU countries.

Within the previously said, we made important contacts with professors from the countries from the EU which were partners in the project, with which the more active cooperation and the establishment of conditions where exchanges of students should be made.

One of the results of the project's activities will be an organization of training workshops and execution of lectures for our students with the participants in the projects. According to this, a certain number of students of the study program Road transport at the faculty of Mechanical Engineering in Podgorica will have an opportunity to visit some of the universities participating in the TRASAF project.

The participation and activities in this project have yielded the exchange of ideas in future common activities on the improvement of the state in road transport both in national, regional and European framework.

CAPACITY BUILDING OF THE FACULTY OF LAW, **UNIVERSITY OF MONTENEGRO – CURRICULA** REFRESHMENT, BOOSTING OF INTERNATIONAL **COOPERATION AND IMPROVING HUMAN,** TECHNICAL AND LIBRARY RESOURCES (CABUFAL)

aculty of Law has undertaken this proiect in order to contribute to the important process of Montenegrin accession into EU by significantly revising its curricula and adapting it, so as to be able to respond to the needs of European and Euro-Atlantic integration in order to meet the needs of the Montenegrin state and society, as well as the need of rapid and comprehensive education of Montenegrin legal professionals on various aspects of EU law.

Given that the harmonization of Acquis Communautaire is par excellence legal issue, and taking into account that the most important chapters in the negotiation phase are related to the legal aspects, the role of Faculty of Law at this moment is of crucial importance to bringing changes that can impact various aspects in society in general.

The refreshed curricula include courses, compatible with the comparative education of lawyers, but also reflecting the specific needs of Montenegrin education of lawyers, taking into account the very demanding process of EU integration and obligations it imposes. This will contribute to better recognition of the curricula at the labour market, and make it more compatible and comparable to the similar EU programmes, thus enabling higher mobility of students. All these changes will improve the quality of higher education of future lawyers in Montenegro.

This project will have a long-term impact on the legal education in Montenegro. The new curriculum and new courses will benefit not only the Faculty of Law but the needs of the Montenegrin state and societies, having in mind the circumstance that it is the only state Faculty of law in Montenegro, and that it is a faculty with a largest number of the law students in Montenegro.

The project has allowed academic staff to acquire new competences which they will systematically transfer to students, and their employability, with a branching effect on the all legal professions in Montenegro that will benefit from the new

Aneta Spaić **University of Montenegro**



knowledge that young lawyers will bring to their profession.

Professional associations of lawyers from Montenegro (especially the non-academic partners in this project - JC of Montenegro and JTC of Montenegro) will also benefit from the project. This two organization conduct further practical education of lawyers and conduct testing for the bar exam, and all other testing for the judicial positions in Montenegro.

ENHANCEMENT OF CYBER **EDUCATIONAL SYSTEM OF MONTENEGRO** (ECESM)



The ECESM project has been designed to enhance overall cyber security posture of the Montenegro by accelerating the availability of educational and training resources designed to improve the cvber behaviour, skills, and knowledge of every segment of the population. The main project objective is to improve, develop and implement standards, guidelines and procedures at national system levels in Montenegro in order to enable creation of agile and highly skilled forces capable of responding to a dynamic and rapidly developing array of cyber threats. Developed standards have been adopted and assimilated to EU standards.

The issues of cyber-security vulnerabilities, national security, public safety, economic prosperity and critical infrastructure were discussed on Explanatory session between EU and ME during the Screening chapter 10 - "Information society". EU has highlighted for Montenegro to begin with coordinated national initiative focused on cyber-security awareness, education, trainings, and professional development. Therefore, the Government and higher education institutions (HEI) must encourage cyber-security competence across the nation and build an agile, highly skilled workforce capable of responding to a dynamic and rapidly developing array of threats.

This project enables fulfilment of aforementioned issues by enhancing the overall Montenegrin cyber-security educational system and accelerating the availability of educational and training resources designed to improve the cyber behaviour, skills, and knowledge of every segment of the population, enabling a safer cyberspace for all. Thereby, the project helps to secure Montenegrin digital nation capable of advancing national economic prosperity and security in the 21st century through innovative cyber-security education (with different levels, ranging from promotions, specialized trainings to master studies), and awareness on a grand scale.

The importance of the project for Montenegro is reflected primarily through:

- Adjusting educational practice in cyber security at national level in accordance with EU practice and standards
- 2. Increasing public awareness of cyber security risks and understanding of specialty areas of cyber security needs

Ramo Šendeli **University of Donja Gorica**

- 3. Improving knowledge of cyber security within organizations so that resources are well applied to meet the most obvious and serious threats.
- 4. Accreditation of multidisciplinary master program recognized and supported by relevant international academic society, for continuous future education of highly skilled professionals in specific areas of cyber security
- 5. Encouragement of Montenegrin professionals and HE and research environment, for further research activities in cyber security area

All relevant Montenegrin institutions which are recognized as stakeholder of Critical Information Infrastructure provided full support for the project activities, adopted own cybersecurity strategy and policy by using the project results and improving their human capacity by enrolling their workers at new master program "Cyber Security" at University of Donja Gorica.

STRENGTHENING CAPACITIES FOR TOURISM CHANGES IN WB - BUILDING COMPETENCES FOR QUALITY MANAGEMENT OF HERITAGE AND **CULTURAL TOURISM (CULTURWB)**

Aleksa Vučetić **University of Montenegro**



The project "Strengthening Capacities for Tourism Changes in WB - Building competences for Quality Management of Heritage and Cultural Tourism" is very important for the educational system and Tourism system of Montenegro. The project has accelerated the transfer of knowledge in the field of education from the developed countries of the European Union (Germany, Austria, and the Netherlands) to Montenegro. At the same time, it contributed to the better connection between the educational systems of Montenegro and the Western Balkan countries (Serbia and Bosnia and Herzegovina).

The innovative Master program in the field of cultural tourism is an innovation when it comes to higher education which respects the specificity of all western Balkan countries, and combines

positive experiences of the European Union countries. The project has enabled better linking between the educational system of project participants through the planned exchange of professors and students. At the same time, it enables better connectivity of higher education and tourism sectors in Montenegro.

The project has made quality cooperation between the University of Montenegro (Faculty of Tourism and Hotel Management in Kotor) on one side, and organizations in the tourism sector (museum, heritage hotels, specialized travel agencies in the field cultural tourism), organization of culture (Institute for Monuments Protection of Montenegro and the State Archives of Montenegro), secretariats and departments of municipalities (secretariats for culture, centres for cultural and tourism organizations) and the

non-governmental sector in the field of cultural tourism, on the other side. It has also provided better practical training for students, and what is very important, enabled acceptance of the concept of lifelong learning in tourism sector (free LLL courses).

Thanks to the management of the University of Montenegro and the assistance of the European Commission (including the Erasmus+ Office in Montenegro), the cultural tourism sector of Montenegro is becoming more competitive on the international cultural tourism market. The positive economic effects of the project generate other positive effects in the social sphere of Montenegro, primarily in political (tourism is the best ambassador of peace) and the sociological dimension (better understanding and respect of different cultures).

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erasmusplus@ac.me www.erasmusplus@ac.me