

UNIVERSITY OF MONTENEGRO Self-evaluation Report 2018

Institutional Evaluation programme – European University Association

Authors:

Prof. dr Predrag Miranović, President of the Working Group, Director of the Centre for Doctoral Studies
Prof. dr Irena Orović, Vice-rector, President of the Scientific Board
Assist. prof. dr Sanja Peković, Director of the Centre for Studies and Quality Control
Prof. dr Filip Vukmirović, Faculty of Medicine
Prof. dr Nikola Milović, Faculty of Economics
Prof. dr Uroš Karadžić, Faculty of Mechanical Engineering
Assit. prof. dr Stevo Popović, Faculty of Sports and Physical Education
Assit. prof. Marko Marković, MA, Faculty of Fine Arts
Sara Arianna Serhatlić, President of the Student Parliament
Ana Dragutinović, International Relations Office Manager

Contents

1. Introduction	4
2. Governance and institutional decision making	6
3. Teaching and learning	9
4. Research	12
5. Service to society	15
6. Quality culture	17
7. Internationalization	21
8. Conclusion	23
ANNEX 1 – THE UNIVERSITY OF MONTENEGRO'S MANAGERIAL STRUCTURE, CENTRAL ADMINISTRATION, AND SUPPORT SERVICES	25
ANNEX 2 – AN OVERVIEW OF THE INFRASTRUCTURAL CAPACITY OF THE UNIVERSITY OF MONTENEGRO	26
ANNEX 3 –BUDGETARY DATA	34
ANNEX 4 – UNDERGRADUATE, SPECIALIST, MASTER, AND DOCTORAL STUDEN DATA	
ANNEX 5 – STUDENT POPULATION BREAKDOWN BY GENDER	49
ANNEX 6 – DATA ON STUDENTS' DEMOGRAPHIC TRENDS	53
ANNEX 7 – ACADEMIC STAFF RESOURCES	55
ANNEX 8 – BREAKDOWN BY ACADEMIC TITLE AT UoM	56
ANNEX 9 – BREAKDOWN OF ACADEMIC STAFF BY TITLE, AGE AND GENDER	57
ANNEX 10 – BREAKDOWN OF ACADEMIC STAFF BY RESEARCH FIELD	60
ANNEX 11 – STUDENT-TEACHER RATIO	62
ANNEX 12 –AVERAGE STUDY LENGTH	63
ANNEX 13 – STUDENT DROP-OUT RATE	64

1. Introduction

The University of Montenegro (hereinafter UoM) represents the oldest and the largest higher education institution in Montenegro. Founded in 1974, today it consists of 19 faculties and two research institutes. UoM represents a comprehensive, integrated higher education institution (**Annex 1**), with approximately 20,000 enrolled students. Teaching at UoM is organized in harmony with the principles of the Bologna Declaration, while, since the academic year of 2017/2018, all the programmes are organized after the 3+2+3model (3 years of bachelor + 2 years of postgraduate + 3 years of doctoral studies) (except for the regulated professions). Study programmes are harmonized with those at relevant European universities which, along with a significant number of cooperation agreements and exchange programmes, encourage and enable mobility within European higher education areas to students, academic and non-academic staff. At the same time, the University strives to intensify research in all the scientific disciplines, in the first place through the realisation of its numerous scientific projects.

Spatially, UoM extends to three Montenegrin regions. Apart from Podgorica, where the highest number of faculties and the largest campus are situated, teaching takes place in Nikšić, Kotor, Cetinje, Bar, Igalo, Berane, and Bijelo Polje. Annex 2 presents a detailed overview of its infrastructural capacities.

Three years after UoM's first institutional evaluation was undertaken by the Institutional Evaluation Programme of the European University Association (hereinafter IEP) in 2014, there came an initiative for the implementation of a follow-up evaluation, which UoM accepted in early October 2017. To implement the self-evaluation, the acting rector at the moment, Professor Danilo Nikolić appointed a working group consisting of ten members who represent academic staff, students, and administrative staff, after which he informed the UoM's Senate about the upcoming process of the follow-up evaluation and the appointment of the Working Group. The Working Group was required to complete the self-evaluation report by the end of March 2018. The Group's report will be then submitted to the IEP team as an initial document for the implementation of the *follow-up* evaluation.

The Working Group held its first meeting on October 26, 2017, at which the structure of the report was agreed on. Working tasks were distributed among the members of the team concerning the individual chapters that thematically adhered to the evaluation report completed in 2014. At the same meeting, the deadline for the completion of the working version of the report was set and the dynamism of the work to be implemented was agreed on. Until December 14, 2017, the Working Group held 5 meetings, at which they discussed individual chapters from the report, while the group members agreed on their views concerning the variety of tasks. The members of the Working Group consulted the relevant agents about the issues of particular concern in the report's chapters they were working on. It was agreed that the self-evaluation report should be submitted to the rector and the members of the Working Group was regularly published on the university's website, so that the wider academic community could also be familiarized with the process of self-evaluation. The Self-evaluation Report was presented to the members of the Senate at the session held on April 12th.

The work on the follow-up self-evaluation took place after the period of transformations that UoM had gone through when it comes to the management structure, organization of studies, and reorganization of some organizational and internal UoM units. Namely, the evaluation report from 2014 was completed in July, while the newly elected rector took up the function in the second half of August of the same year. In October, UoM adopted the new Law on Higher Education ("Official Journal of Montenegro", No. 44/14), after which all the regulations at UoM were harmonized with provisions of the new law. In 2014, UoM performed a detailed analysis of the situation in all the segments of its functioning –starting from teaching and research, over its quality assurance system,

its personnel structure, its equipment and infrastructure, to the model of financing and the cooperation with the society - and defined the strategic directions of its reorganization from the level of all the studies to the level of its organisational units. Defined directions of the reorganization of UoM relied in great measure on the suggestions of the EUA evaluators. In the first part of 2017, the reorganisation of the university's units was implemented, and so was the accreditation of all the study programmes after the new model of studies, whose realization commenced in the 2017/2018study year.

Institutional strengthening of UoM is also implemented through the grants obtained within the project "Higher Education and Research for Innovation and Competitiveness" hereinafter HERIC), which is realized through the Government of the Republic of Montenegro with the financial contribution of the World Bank. The grants aimed at strengthening administrative and operational capacities of higher education institutions; at strengthening of educational and teaching services and the capacity building in all the service sectors and geared towards other interested stakeholders; and at the improvement of the educational infrastructure with an aim to achieve quality teaching and studying at the higher education institutions. Within the HERIC grant scheme, the following9 projects were implemented in order to meet the needs of UoM institutional improvement:

1. Strengthening of teaching process in basic sciences and ICT on University of Montenegro – STBSUM

http://www.heric.me/en/stbsum/stbsum-project

- 2. International certification of maritime education in Montenegro– EDUMAR <u>http://www.heric.me/en/edumar/edumar-project</u>
- 3. Reforming Doctoral Studies at the University of Montenegro REDOS <u>http://www.heric.me/en/kategorije-clanaka/redos</u>
- 4. Improving communication capacities of University of Montenegro-- ICC <u>http://www.heric.me/en/kategorije-clanaka/icc</u>
- Acquiring practical knowledge through "Virtual Enterprise" programme and internship in existing companies–PRACTing http://www.heric.me/kategorije-clanaka/practing
- 6. Reform of study programmes at MTF in line with the needs of Modern Education in the field of technologies, materials and environmental protection– REMMTF http://www.heric.me/en/kategorije-clanaka/rem-mtf
- 7. Development of the Centre for International Cooperation and Career Development– DCIC <u>http://www.heric.me/en/dcic/dcic-project</u>
- Improving Academic Network and Accompanying Services at the University of Montenegro – IANAS

http://www.heric.me/en/ianas/ianas-project

9. Didactic concept for Targeted Teaching on the fundamentals of Engineering– DETT http://www.heric.me/en/dett/dett-project

The *follow up* self-evaluation report is structured so that it is in accord with the chapters of the IEP's evaluation report, while at the same time it offers an overview and critical interpretation of the reform activities implemented in the last three years, as well as suggestions for further developments of UoM that will remain in harmony with its strategic definitions.

2. Governance and institutional decision making

The publication of the evaluation report from 2014was received concurrently with the publication of the call for competition for the new rector of UoM. The rector's programme largely relied on the recommendations from the IEP's evaluation team report. The Senate and UoM's Governing Board assessed positively the evaluation report and entrusted the mandate to the newly elected rector, who was to implement the defined programme of the university's development. The key suggestions of the evaluation team referred exactly to a variety of aspects of UoM's management.

Within the sphere of human resources management, the evaluation team recognized a major problem of the substantial number of students in relation to the actual number of teachers, especially at the Faculty of Law and the Faculty of Economics. The other problem emphasized was the high number of subjects in relation to the actual number of teachers. With the first problem, being the enrolment of a much higher number of students that extend over the real capacities of all the individual faculties, we discovered two-road solution. In the first place, the Ministry of Education utilized legal opportunity (in other words, its obligation) and issued licences to every study programme at all the faculties, i.e. it prescribed the maximum number of students to be enrolled in accordance with the spatial capacities regarding each faculty building, emphasizing the strictest of controls in the enrolment process.

Secondly, in parallel with solving the problem of the number of students in formal and legal means, it was necessary to define the cause of the problem, which, in both cases, was of a financial nature. Lacking financial means necessary for their successful operation, individual faculties originally opted for higher enrolments, estimating that students' tuition fees generate additional income. The evaluation team noted that the level of funding (in 2014, at the time of the writing their report) was too low to maintain any of the functions at that level the Government wants UoM to achieve, which is the basic challenge that UoM faces now. To eliminate the faculties' motive for a high enrolment, but also for many other reasons at the same time, the UoM budget records a constant increase, which can be seen from the attached diagram (Annex 3). Additionally, the amendments to the Law on Higher Education ("Official Journal of Montenegro", No. 42/17) provide that the students who enrol in bachelor and postgraduate studies at the public institutions are not supposed to pay tuition, which also reduced the motive and the pressure of overabundant enrolment. The other problem found i.e. the high number of subjects in relation with the actual number of teachers was also resolved in multiple ways. In the first place, the amendments to the Collective Agreement dissimulated engaging teachers for a greater number of subjects. For a defined average realization of the teaching load increased by a maximum of 100% of the teaching norm established by the Statutes of the University, the basic salary is proportionally increased by 50%. All of the classes, whether they are organized for the students whose studies are financed from the budget or for those who are paying their own tuition, are treated in the same way by the amended Collective Agreement, which additionally decreased the faculties' inclination towards excessively high enrolments. Secondly, in the last accreditation, UoM reduced the number of subjects at most of its study programmes.

Finally, with its own bylaws (Systematization of the Employment Positions), UoM defined the number of teachers in all the study programmes, so that the system is directed not towards the increase of the number of teachers (those who would cover all the existing courses), but towards the optimization of the existing curricula by the reduction of subjects, i.e. by the modification of the number of subjects in relation with the defined number of teachers.

When it comes to the financial management of UoM, two substantial changes took place in the period after the visit of the evaluation team. First, the new Law on Higher Education defined the

issue of UoM's funding with an agreement between the Government of Montenegro and UoM, which clearly defines the obligations of both parties. The long-term agreement is expected to eliminate the insecurity related to the funding allocated to UoM, which, on the other hand, enables its rector to suggest and make long-term decisions. This system of financing is new and we need a certain period of time before we can be able to estimate its success. There is a fear that such a system of financing is not flexible enough, keeping in mind that UoM's chief source of funding comes from the available grants from the state budget. Secondly, a significant internal redistribution of funds incurred through tuition has taken place, so that 72, 5% of income flows straight to the central budget (in contrast to the previous 20%), which strengthened the central administration in relation to the faculties.

Considering research, the teachers at UoM are mostly oriented towards external (national or international) sources of financing. However, thanks to the improved financing, UoM has recently decided to introduce two mechanisms which are to advance the management of this activity to a certain measure. UoM introduced the Rulebook which prescribes awards for research papers published in journals listed in the relevant databases. Furthermore, all the faculties are introduced with the new obligation to direct all their income into the so-called Units' Development fund, which, among other things, is to help realisation of their research activities. Although the new Collective Agreement made two significant steps forward, it still standardizes the teachers' income especially on the basis of the teaching performed. It would be an improvement if the collective Agreement or through their research, either through the Collective Agreement or through the agreement on UoM's funding. It would make a good mechanism for an improved management and administration of research performance at our university.

The evaluation team paid special attention to the issues of centralization and integration. With the previous accreditation, UoM commenced realization of interdisciplinary studies at the postgraduate and doctoral levels, as a mode of interrelating (integration) of teaching at different study programmes. Although at first glance it may only appear symbolical, UoM opted for unification (integration) of the websites of all its individual faculties within a singular Internet presentation. The integrated portal has significantly contributed to the construction of a joint institutional identity, and represents a platform which, in a harmonized and transparent way, offers information on practically all aspects of the academic life of the university. The criticism concerning various aspects of this portal, which can be heard within the academic community, should be taken into consideration in the second round of improving the portal's performance, making it more user friendly.

The evaluation team also suggested the new rector should introduce more decisive politics when it comes to the transformation of UoM's managerial bodies, so that they are no longer a group of representatives of individual faculties, but that they should take over the role of central managerial bodies. As a step towards this direction, the amendments to the Statutes of the University enabled that its Senate can independently form its own expert bodies, the Scientific Board and the Doctoral Studies Board. These newly formed boards exist in parallel with the previously existing expert bodies, professional committees, and look into the same issues. Unlike the Scientific Board and the Doctoral Studies Board, the professional committees are made up of the representatives of the faculties, who exactly represent their respective faculties' needs and decisions at the committees' meetings. All the more, while it decides on the composition of the Scientific Board and Doctoral Studies Board, the Senate cannot influence the composition of the professional bodies. The Scientific Board and the Doctoral Studies Board have contributed to the unified Senate's politics when it comes to the decisions concerning tenures and achieving doctoral degrees, and they represent an important mechanism available to the rector and the Senate when it comes to the implementation of UoM's central policy. However, since experience has shown that the Senate largely relies on the opinions of the Scientific Board and the Doctoral Studies Board, and not on the opinions of the professional committees, these committees have somehow lost their importance, so that a question concerning the purpose of their existence logically enforced itself. We are of the opinion that on the basis of the experience working with the newly formed boards, UoM should reconsider the jurisdiction and the role of both the professional boards and the expert committees. However, there is a feeling, within the academic community that major, strategic decisions concerning centralization and integration of UoM were made without a wider and a more open dialogue within UoM, although the evaluation team advised instigating an open internal dialogue.

In the immediate future, UoM will be devoted to the creation of a general strategy, which will aid in defining the main directions of its development in the next five years. The UoM has applied for an external grant with a project concerning the development of its general strategy, which, among other things, would aim to improve its functioning and its international competitiveness.

3. Teaching and learning

In 2017, the University of Montenegro reformed the system of studies and adopted the new system of 3+2+3 instead of the previous 3+1+1+3 system. With the accreditation from 2017, 160 study programmes are accredited on all study levels, of which 114 are at bachelor and postgraduate studies, 14 within the applied studies, and 25 doctoral study programmes. Also, eight interdisciplinary study programmes are accredited, of which one is at the doctoral level, while seven exist at the level of postgraduate master studies. In this way, the number of study programmes has been decreased from 270 to 160, which was one of the many suggestions of the evaluation team. This new model, apart from harmonizing Montenegrin studies with the "European Higher Education Area" (hereinafter EHEA), has established a measurable standard of quality teaching and the acquired knowledge, which positively affects a possibility of an increased engagement of teachers in the realisation of teaching, but also their increased commitment to individual students, as well as an increase in the mobility of teachers and students, etc. It is to be expected that the bachelor diploma is accessed at the job market on the basis of clearly defined learning outcomes, that the two-year postgraduate studies will bring advanced knowledge, while doctoral studies will be valorised through a doctoral diploma which will be applicable in the job market. All the bachelor and postgraduate programmes are to be realized through continuous teaching, while doctoral studies will be generally implemented through mentoring engagements. In the academic year of 2017/2018, the new curricula are already being implemented in the first year of bachelor studies, as well as within the first year of doctoral studies. The postgraduate studies will be functioning after the new curricula in the 2020/2021academic year.

All the bachelor study programmes are accredited as three-year study programmes, while having, at the most, two modules in their VI semester. They are organized as either academic or applied studies. Their scope is 180 ECTS. Exempted from this rule are the regulated professions, which have implemented the EU directives about the duration of their bachelor studies, so that bachelor studies in medicine and dentistry last 6 years, while pharmacology and architecture last five years.

The postgraduate study programmes are organized after the completion of the bachelor studies and all are accredited as two-year programmes. The scope of the postgraduate studies is 120 ECTS.

Doctoral studies are organized after postgraduate studies, and all are accredited as three-year study programmes. The scope of doctoral studies is 180 ECTS.

Teaching can be organized in classroom and as distance learning (Distance Learning), where in the latter case the examinations are organized at the premises of the institution.

Introducing learning outcomes in the study programmes was one of the main recommendations of the evaluation committee. The work on the development of learning outcomes at UoM went concurrently with the implementation of the Tempus project "Development of Learning Outcomes Approach – A Way to Better Comparability, Recognition and Employability at the Labor Market – Devcore". The new Law on Higher Education determined that it is obligatory for all the study programmes to define their learning outcomes. At the same time, the above-mentioned Tempus Project developed directions for defining learning outcomes, so that in March 2015, a workshop was held to represent the concept of learning outcomes and how they should be defined for each individual study programme and course at UoM. The implementation of learning outcomes within the existing curricula was completed in the first part of 2017, which assures harmonization with the standards of EHEA. Although learning outcomes are defined for every curriculum, more consideration should be placed into defining a clearer connectivity between learning outcomes and the conditions for successful performance at final and mid-term exams.

The number of students within bachelor studies has decreased in the past several years (Annex 4). The data shows a well-balanced gender distribution of students within the overall student population in the last three years (Annex 5). Annex 6 shows that the majority of students in the last three years come from the central region, which is followed by the northern region, while the smallest number of students comes from the southern region. The data also shows that foreign students make up 2% of the total student population.

The overview of the number of teachers per organisational unit is presented in **Annex 7**, their distribution by title is given in **Annex 8**, while the demographic characteristics are available in **Annex 9**. There is also an overview of teachers by their sphere of scientific interest in **Annex 10**.

When it comes to the distribution of the number of students per teacher at UoM, in the last three years, the average number of students per teacher has been 34 (Annex 11). With an aim to improve the teaching process, it is necessary to additionally decrease the study groups, which would enable a greater level of interaction between teachers/assistants and students. This will increasingly aid in a student centred learning and problem-based learning.

The data shows that the average duration of studying at the bachelor level is 4.6 years (Annex 12). An overview of student drop-out rate per organizational unit is available in Annex 13.

The new Law on Higher Education predicts that study programmes must contain practical training. In the middle of 2017, the UoM Senate adopted the Rulebook on Practical Training which assumes practical work obligatory for all students. One of the basic ideas while adopting the new curricula and syllabi was involving students in practical work and applying of knowledge through practical work, so that at the end of their studies, they will be prepared for the challenges that they are to meet within their employment lifetime. The university has compiled a list of practical training bases of enterprises, public and professional institutions within which the students are obliged to complete a part of their regular studies. It is also foreseen that each university unit will sign agreements with relevant institutions for practical training. Apart from this, one part of practical training will be implemented through the seminars and in the laboratories of individual faculties. On average, practical training takes 20% in the structure of the actual curricula. This percentage is lower at general and theoretical subjects, and higher with professional subjects within the senior study level. Only after one entire circle of these studies is completed will it be obvious how successful this type of training will be.

The final papers at all the study programmes usually contain practical exercises, which are to be realized in laboratories and/or companies/institutions with a compatible professional orientation. It has to be pointed out that a large number of students who have received bachelor diplomas have undergone professional training organized by the Government of Montenegro and the Ministry of Education. Their testimonies show that the practical education acquired through this programme was especially beneficial for the students who continued studies at the postgraduate level. We want to point out to the following projects realised with the support of from HERIC project scheme aiming at improving the education process:

- The Faculty of Science and Mathematics implemented the project Strengthening of the teaching process in basic sciences and ICT at the University of Montenegro

 STBSUM. This project enabled acquisition of the latest modern equipment and ICT, as well as new didactic material, which strengthened the infrastructural capacities of the faculty of Science and Mathematics, aiming at improving and modernizing the teaching process within the study programmes of Physics, Mathematics, ICT sciences, and Biology.
- The Maritime Faculty in Kotor implemented the project **International certification of maritime education in Montenegro** –**EDUMAR**. The aim of this project was the international certification of harmonized study programmes within international standards as prescribed by the International Maritime Organization (IMO). The certification of the study programmes within the field of nautical studies, shipbuilding, and the maritime electrical

engineering with IMO STCW Convention by renowned maritime certification institutions, will position UoM/Maritime Faculty in Kotor and maritime education in Montenegro on the list of the maritime educational institutions recognized by IMO. This project also helped in improving the existing QMS system at the Maritime Faculty, as well the introduction of the new QMS ISO 9001:2015, which was a pre-condition for the international certification of its curricula and syllabi.

- The Faculty of Economy implemented the project Acquiring practical knowledge through "Virtual Enterprise" programme and internship in real companies PRACTing. The aim of this project was the introduction and implementation of the programme for the acquisition of practical knowledge, skills, and experience for the students of the Faculty of Economics. This project will address the transferability of the theoretical knowledge onto an applicable level.
- The Faculty of Metallurgy and Technology realized the project **Reform of study programmes at MTF in line with the needs of modern education in the field of technologies, materials and environmental protection REM-MTF**, which aimed at the reformation of the curricula at the Faculty and implementation of modern, flexible, and an adaptable teaching process based on innovation and higher participation of practical training. The emphasis is placed on the creation of new engineering study programmes within the fields of metallurgy and material, chemical technology and environmental protection, while staying in accordance with the trends within the European area of higher education and with the flexible job market.
- The Faculty of Metallurgy and Technology also realized the project **Didactic concept for targeted teaching on the fundamentals of engineering DETT**, within which a systematic approach to the development of new didactic concept within engineering education is developed, with an aim to contribute to the development of the reforms of the existing programmes, which have been shown to be outdated, with an uninventive approach to the transfer of knowledge and practical training, and in disharmony with the needs of the modern job market and modern engineering education.

Lifelong learning is recognized through the new Law on Higher Education, and therefore, the Centre for Studies and Quality Control has initiated a process related to the amendments to the internal Rulebook on lifelong learning adopted by the Senate in 2012. This is done so that the studies may adapt to the changes related to the Law on Higher Education, taking into account also the establishment of the Agency for the Quality Control and Quality Assurance in Higher Education at the beginning of 2018.

4. Research

In the period from 2014 to 2017, the University of Montenegro intensified the scope of its research activities, with the aim to implement the recommendations from the 2014 evaluation, and also to enhance and unify the university's research capacities. In the period of the last three years, the researchers at UoM have taken part in 250 projects, out of which 5 FP7 projects, 52 COST actions, 10 actions connected with encouraging participation in the programmes Horizon 2020 and COST actions, 3 HORIZON 2020 projects, 11 IPA projects, 8 ERASMUS+ and TEMPUS projects, 13 HERIC projects, 1 HERD project, as well as nearly 120 bilateral research projects.

In accordance with the recommendations from the evaluation, a significant role in the mission of strengthening the research and institutional capacities of UoM was carried out by the Government of Montenegro through a programme of research grants, implemented through the Ministry of Science and supported by the credits granted by the World Bank (HERIC grants). Thus, apart from the Centre of Excellence, in which nearly 3.5 million euros will be invested and which, starting with2018, will be organized as a new independent UoM unit (Institute - Centre for Excellence for Research and Innovation), additional 4 research grants were implemented within UoM, while two research grants were given to the Clinical Centre of Montenegro, as one of UoM's practical training bases. Several clinicians employed at UoM were involved in implementation of this project. The relevant research areas which these funds focused on were: ICT, energy, medicine, bio-technology, tourism, and environmental protection, so that, in this way, concentrated research within the priority development area in Montenegro has commenced. In the framework of these research grants, researchers from different organizational units came together, which led to the expansion of multidisciplinary research. At the same time, this connection made an opportunity for the mutual use of resources and also for the expansion of human potential and research experience through a plurality of UoM units. An obligatory component of all these projects was the stimulation of cooperation with the state economy sector. It is important to realise that we have launched an initiative for the foundation of a legislative frame for commercialization of the research results. The research teams who took part in these projects had the support of experts for commercialization, which is a step towards a new research concept at UoM. We also plan the development of a legislative frame for the cooperation between the academic community and economy, for the modality of the commercialization of the results, and for the protection of intellectual property rights.

Within the institutional grant given to UoM, under the title **Reform of Doctoral Studies at UoM– REDOS**, we have implemented one part of the activities connected with the harmonization of our doctoral studies programmes with the principles of the Bologna and Salzburg processes. The reform especially treats the issue of innovation and research quality of doctoral theses, as well as the mechanisms for establishing a synergy between academics and economy. As a part of the implementation of this institutional grant, the Strategy for the reform and improvement of doctoral studies at UoM is being developed. At the same time, UoM founded the Centre for Doctoral Studies and the Doctoral Studies Board whose task it is to monitor the quality in the organization of doctoral studies and doctoral dissertations. Another task of the Centre for Doctoral Studies is to achieve higher international recognition of UoM within the European higher education and research areas, as well as to encourage multidisciplinary access to doctoral studies. The members of the Doctoral Studies Board belong to different scientific disciplines, involving competent individuals from the field of studies that is close to particular doctoral works, so that quality assessment of doctoral theses became better founded and more evaluated.

Although there were discussions about the formation of a doctoral school which would enable a unification of resources, knowledge, expertise, and the experience at UoM, so that, with joint forces, we may work on the development and training of young researchers in different research areas (including the principle of multidisciplinary oriented studies), no significant shifts towards this aim has yet taken place. This is especially so because of the lack of modalities by which experienced teacher-researchers could be adequately engaged in the work of this school, so that their engagement is valorised within their regular monthly load. A project for a European grant was submitted in 2018, with the aim to create a doctoral studies school at the university, which would acknowledge the principles of the best practices of the European universities.

The new **Criteria for Academic Promotion** were adopted by the **Higher Education Council** in September of 2016. The new criteria have contributed to the concretization and a more precise definition of the scientific and professional inputs for the acquisition of certain academic titles. Apart from the Criteria for Academic Promotion, UoM developed new criteria for the selection of supervisors of doctoral theses candidates, and they also concern scientific publications (supervisors are required to have papers published in renowned scientific journals). The introduction of the defined criteria and measures lead to an increase in the number of publications within relevant international journals (SCI/SCIE, SSCI, A&HCI). However, not all the disciplines experienced equal improvement, so that there is still a significant discrepancy between the individual scientific disciplines.

The Scientific Board is founded as a professional body that works in cooperation with the Senate. It discusses issues connected with the research activities at UoM and also estimates to which level the academic staff fulfils the criteria for their academic promotion. The aim of the Scientific Board is to apply measurable, sufficiently high, yet still achievable criteria and thus, to constantly push forward our academic community. This committee also supports research and the promotion of the sciences. The research strategy at UoM has become significantly more oriented towards the economy and its performance on an international level than was the case in the recent past. One proof of this is a stronger accent placed on the innovative and commercial components of research, which were almost absent in earlier periods.

UoM has also established a fund for awarding the authors of renowned scientific accomplishments (publications), all with the aim to stimulate and intensify scientific and research performance at our university. The criteria for awarding funds are defined in a special Rulebook, and they foresee financial contributions to the researchers for each paper published in eminent research journals. In this way, UoM attempts at creating positive mechanisms for the increase of its research efficacy, and it gradually works towards developing a frame that will allow that a part of the personal income of its academic staff is achieved for their research endeavours, and not only for their teaching activity.

However, we have still not adequately recognized the problem of the small number of doctoral students at UoM. One of the causes of this problem is the constant lack of finances necessary for the engagement of young researchers and for meeting costs that are required for their research. Another reason is the inadequate interest in doctoral studies, because, on one hand, the insufficiently developed economy which usually does not express a need to employ candidates with doctoral diplomas, so that our PhD holders cannot find adequate positions on the market that would recognize their qualifications. On the other side, a long-term engagement at UoM is uncertain because of the unsustainability of the system which has not been conceived so that candidates with doctoral diplomas and researchers at UoM would cyclically bring in incomes through projects, cooperation with the economic sector, or other similar activities, so that they can thus achieve their own sustainability. Most of the doctoral students engaged at UoM are conducting seminar classes, and their only opportunity to be fully employed at UoM, after they receive a doctoral diploma, is that they are tenured, which, again, is closely connected with the availability of vacant subjects/classes. The consequence of all these is a low number of young promising researchers who opt to enrol in doctoral studies, which further means that it is necessary to create a frame (in cooperation with Montenegrin society) which will contribute to the recognition of the need for PhD holders, employees who are capable of raising the level of innovativeness within the business sector, who will contribute to the technological development, to the foundation of research centres within enterprises, as well as to the successful commercialization and the general advancement of the local communities.

UoM has noted a significant improvement when it comes to the centralization of the management and the organization of its activities, starting with the centralization of public procurements, over the centralized management of finances, to the centralized management of resources (research equipment, web portal, libraries, personnel, and similar).

As a part of the ERASMUS+ project titled **Enhancing research potential in higher** education as a contribution to Western Balkans development – Re@WBC, we are currently in the planning stages for developing the *Human Resource Strategy for Researchers (HRS4R)*, with an aim to implement the principles from the European Charter for Researchers and the Code for Employers within the procedures and the practices of UoM. The Senate agreed that the procedures for the development of HSR4R should commence, the letters of endorsement and commitments were sent, and the Steering group and the Working Group for the implementation of HSR4R were formed. The development of Gap analysis is only just proceeding.

The reorganization of the library and information system was done with an aim to improve the system's quality and effective functioning. The University's Central library is developing a comprehensive library system of the University and coordinates and harmonizes the activities of all of its departments. Individual aspects, such as management, organization, professional activity, are performed on the level of the integrated library system that is through the Central Library of UoM and through its professional departments, while its director performs direct management of all of its employees and the dislocated departments (33 employees at the moment). However, the integration of the system for material security of the work of dislocated sections has not yet been fully achieved, such as the provision and maintenance of space, resources and equipment, procurement of library materials, communication and other services, education and professional development of library staff. These organizational changes have proven to be inadequately functional in practice, which has influenced the efficiency of the library-information system. Therefore, a reassessment of certain organizational solutions has been taking place in the last two years. Yet it still has not led to a noted improvement of the library's functionality.

5. Service to society

UoM has addressed the Ministry of Education with an initiative to adopt a strategic approach to a wider community, as an obligatory part of the general performance of enterprises and public institutions. The new Law on Higher Education introduced a regulation about obligatory practical training during university studies. After the Law was adopted, in the middle of 2017, the Senate also adopted a Rulebook on practical training as obligatory for all the students, after which it also compiled and published a list of training bases (institutions, enterprises) as recommended by the boards of individual faculties. The Management of UoM also instructed the deans to establish and formally sign agreements on cooperation and practice with these teaching and training bases. Most of the subjects from the new curricula specify the context of practical dimension of the work related to their discipline. Furthermore, modelling and implementing the project, practical and term papers, and similar, which are incorporated in the syllabi of the new curricula, imply that students should spend a certain amount of time in an enterprise or another institution, to be able to gather relevant data and realize the designed practical aspect of their respective disciplines. Within bachelor studies, the valorisation of the practical part of work (teaching, practice) takes 5-35% of the total exam, depending on the discipline, while the structure of practical teaching correlates with the planned learning outcomes. While creating the new curricula, the practical work was intended to take an average of 20% of the curricula, so that it should be valorised at the exam, i.e. by a grade, in relation with the percentage it represents within an individual subject's load. A lower percentage of practical work, in relation to the average 20%, is present in general and theoretical disciplines. On the other hand, when it comes to bachelor applied studies, practical work is present with a minimum of 20% for most of the subjects. We have to point out the fact that the key limitation to a successful implementation of practical work within bachelor studies is the number of students. Apart from the training that is to be realised externally, an important part of practical training will take place internally, through organization and the participation of guest lecturers who are eminent professionals in their fields, or through a variety of activities which, apart from the acquired knowledge, will offer students the opportunity to apply that knowledge through development of projects, implementation of workshops, the writing of essays, participating in debates etc. These activities aim at complementing the designed scope of practical schooling, defining the method of its valorisation both as an individual activity per se and as a part of the overall final examination. The presented structure of practical work also correlates with the defined learning outcomes.

We have to point out that practical work will also be realised through a number of projects that are being implemented at individual faculties. One of the projects financed through the HERIC grant scheme is Acquiring practical knowledge through "Virtual Enterprise" programme and internship in real companies– PRACTing. The main goals of this project are to strengthen connections between theory and practice through the promotion of enterprise and innovation among students, to attract the participation of the business sector in the implementation of projects, as well as the introduction of internship programmes for students in regional companies. The realization of the project implies a multidisciplinary approach to teaching, and mentoring, which involves the application of knowledge from the various subjects studied at the Faculty of Economics.

To develop a comprehensive knowledge transfer policy and cooperation with the private sector, UoM has established a Centre for Technology Transfer and Professional Services. The role of the Centre is to work on improving the possibilities for efficient and effective application of scientific and research results, with the aim to help in the development of economy and society at large, to promote the transfer of knowledge between UoM and the country's economy, to support the placement of new technologies and innovations, and, lastly, to support the connection between

relevant subjects and the establishment of cooperation of vast networks that would enable a more intensive technology transfer. The improved basic funding of the University, through the 2018 budget, will offer a more dynamic approach to technology transfer. In the coming months, we will work on filling up the Centre's capacity, so that it can commence with its activities.

The new Law on Higher Education implies activities connected with the implementation of lifelong learning within the frame of the sixth qualification level, so that it is necessary to harmonize the existing Lifelong Learning Strategy at UoM, created in 2012, with the new regulations. To this aim, it is necessary to develop programs of lifelong education, which will ensure permanent education and harmonization of knowledge and skills of the employees in companies and in the public sector. Without lifelong learning, it would be difficult to achieve any progress in our contemporary society, while in a dire situation of high unemployment, it can be one of the possible and positive solutions. Therefore, it is of the utmost importance, to coordinate activities at UoM level and, if necessary, establish a Centre for Lifelong Learning.

The university's academic staff participates in various commissions and provides vital advice to both the central and local authorities. By participating in the work of the Government and the working groups conducting EU accession negotiations, professors and associates are directly involved and professionally connected with the many actors in the economy of Montenegro.

UoM organizes teaching in the language of minorities, specifically in Albanian for members of the Albanian minority in Montenegro.

Through the Student Parliament, the Career Development Office, the respective faculties and UoM in general, students participate in a number of socially responsible activities and events, such as campus reforestation campaigns, voluntary blood donation campaigns at several faculties, the longest tradition of which, lasting over 30 years, is to be found at the Maritime Faculty in Kotor; on the occasion of *International Day of Children with Chronic Disease*, the students of the Faculty of Fine Arts donated their graphics; the students of the Faculty of Medicine are involved in campaigns to fight breast cancer, in the promotion of oral health in preschool and school institutions, as well as in the campaigns on the occasion of the *Day of Reproductive Health*, etc.

6. Quality culture

To improve and expand the quality culture at UoM, the Centre for Studies and Quality Control, as one of the bearers of the quality system implementation, initiated the establishment of the Committee for Quality Assurance and Control at organizational units in 2015, by amending UoM's normative acts. The Committee for Quality Assurance and Control within a given organizational unit is in charge of the overall assurance and improvement of the quality system of the unit. The responsibilities of the Committee relate to the review and revision of study programmes implemented within the unit and the units' personnel structure, following the implementation of curricula in accordance with learning outcomes; compilation of reports containing analysis and evaluation of the fulfilment of standards for self-evaluation, advantages and disadvantages regarding the fulfilment of these standards, proposals for measuring the quality improvement, as well as all other tasks related to the assurance and improvement of the quality system of the organizational unit. However, their role in the process of improving the quality of studies is still not satisfactory, as they have not been actively involved in these processes. Also, the analysis of the current situation pointed to the need for more significant involvement of administrative staff of the organizational units in the process of quality optimization, since, at this moment, most of them are not sufficiently knowledgeable of the quality system, procedures, regulations, and other determinants of the quality culture development at the university. This, in the long run, can cause significant information asymmetry in the context of issues related to the administrative capacity of the units, as well as the issues related to the overall integrity of the quality system. Therefore, it is necessary to take steps in terms of harmonizing the work of the staff in individual organizational units, because they are the bearers of the implementation of the quality system and, as such, according to the valid acts, they are all responsible for the integrated quality assurance system. In this regard, the Centre has developed a questionnaire for quality monitoring at its faculty units. In particular, questionnaires were prepared for student representatives, as well as for the representatives of academic and administrative staff, as a form of internal control that should enable development of the culture of monitoring and quality improvement. This process is meant to facilitate identification of the key aspects that need to be improved, and additionally involves a greater number of participants in a joint creation of a quality system. In addition, periodical meetings with the presidents of these commissions will enable more efficient cooperation and networking of all actors in order to review and continuously improve the overall state of UoM.

To develop mechanisms for quality control and improvement of scientific research and academic writing, and therefore to improve the academic integrity of the entire UoM community, the Centre has devised a series of seminars, forums, training sessions, which are to be organized by the end of 2018. These seminars will address the promotion of ethical behaviour in teaching and research, prevention of the unethical behaviour of students at exams, plagiarism, the role of the quality system in strengthening academic integrity. Also, it is planned that these types of seminars are organized individually within the faculties in cooperation with the Committee for the provision and improvement of the quality system.

UoM has developed different strategies for specific areas, such as internationalization, lifelong learning, doctoral studies, but does not possess a comprehensive strategic plan that defines its identity and its long-term goals. In addition, we have not developed an action plan for the existing strategies or follow-up tools and monitoring tools that would contribute to evidence based decision-making. In this regard, it is planned to form a working group that will aim to provide a framework for better functioning and correspondence between and within different fields at the university level and in relation to the external environment. The above-mentioned working group will define the

overall strategy of the university for a period of 5 years. Towards this purpose, a project concerning development of the general strategy of UoM was submitted for financing under one of the European grant programmes.

In the past period, activities have been undertaken in order to solve the problem of insufficient student response when it comes to filling in the student survey, whereby additional efforts are needed in order to improve performance significantly. Also, additional analyses of the student survey were conducted with an aim to provide a clearer picture of the situation at UoM. To further improve the issue of student surveys, the Centre will launch an initiative to change the student survey (there are indications that some of the issues are redundant, it is questionable how competent students are to answer certain questions, it is also necessary to consider and adjust the time required to complete the survey, etc.) and create incentive mechanisms that would further motivate students and increase their awareness of the importance of this type of evaluation (consideration is also given to the condition that students should be physically present at the faculty building while completing the survey, to the problem of a statistical sample, etc.). To solve these problems, in the forthcoming period, the content of this survey will be changed, and, in the near future, the Centre will send the initiative to the competent Agency for Quality Control and Quality Assurance in higher education, in order to improve the quality of the content of the survey itself, which will also influence students' motivations to complete the survey. Also, the Centre has defined an internal student survey that will be conducted in April of 2018 for the first-year students (pilot version). In addition to the novelty that relates to the very content of the survey, the method of conducting the survey is also different because students can fill in the survey outside the premises of their faculty.

Working towards strengthening the teaching and research capacities, several seminars and workshops were organized within the framework of the **Training and Research for Academic Newcomers - TRAIN** project¹. This project aimed to develop, implement, and evaluate the programme of professional development of the academic staff and, above all, was focused on future teachers and assistant teachers. The main goal of the project was to help the development of quality teaching and research at the universities of the Western Balkans, since, at this moment, the competitiveness of our teaching staff and their research capacities are not at the most satisfactory level. The Centre will continue with this positive practice in the upcoming period and will continue to organize various workshops in order to promote the quality culture at UoM.

Aiming at strengthening of the cooperation with the economy, in the 2017/2018 academic year, UoM introduced practical training in its curricula, which should enable more efficient preparation of students upon entering the country's labour market after graduation, which will increase, among other issues, their chances for a quicker employment and traineeship, as well as contribute to the advancement of knowledge, practical skills, and the general competences of students. The results will become evident in the coming years. It is also necessary to constantly monitor this process by ensuring its evolution in the direction that students and the labour market recognize as the most important. Also, to correct the inconsistency of enrolment policies with the labour market objectives and ensure students' competitiveness in the labour market, the Centre conducted an analysis of the labour market needs for the 2017/2018 study year. In the course of this year, it introduced the faculties with the results of this analysis in order to prepare proposals for the enrolment that will be harmonized with the conclusions of the analysis. It is necessary, however, to take into account the fact that these trends are of variable nature, and that for certain professions there is a possibility of "saturation" on the labour market, which is why it is necessary to continuously monitor the said dynamics.

Through the HERIC grant **Improving Academic Network and Accompanying Services at the University of Montenegro - IANAS**, UoM significantly modernized and improved the hardware

¹ Workshops on the preparation of project applications and project management, on training within the project, on methodology of scientific research, workshops on presentational and communication skills, etc.

structures and service of the Academic Network. Its activities relate to the procurement and installation of equipment, as well as to the design and implementation of modern Document Management Software (DMS). The purchased equipment will improve the capacities of the Information System Centre, which will support the implementation of the DMS system in the UoM Rectorate, as well as in the governing bodies of UoM and its respective faculties.

Also, through the HERIC grant, UoM aimed to improve the mechanisms of internal and external communication. A special set of project activities was devoted to enhancing communication skills and professional capacity of the staff, resulting in a professional, two-way communication between UoM and its organizational units. The project sought to create a network of communicators for public relations, which will consist of academic staff who will be trained in the field of communications, so that they can improve the skills needed to successfully engage the Montenegrin public.

Within the same grant scheme, the **International Certification of maritime education in Montenegro - EDUMAR** was funded. Among other things, the project envisages the transition from the old to the new quality management system QMS ISO 9001: 2105.

Internal communications at UoM were enhanced by the creation of an integrated web platform, whose aim is to group and unify all relevant information and provide the same quality of service to all its users, in the first place the academic staff and the students, who are the most common users of the site, but also to the general public. Its aim is also to promote communication through modern channels. The obligation to publish information, notices, test results, and teaching material on the given platform has been created. The platform also provides access to the acts of UoM, its relevant activities, workshops, seminars, valid scholarships, etc. However, by rapidly switching to the integrated web portal, the existing websites of the individual faculties and institutes were suddenly abolished, resulting in a lower international recognition of UoM within the university ranking process. In this sense, a working group has been formed, which has the task of increasing the international visibility of UoM. Within this group, a special team has been created that will continuously monitor and provide guidelines for future improvements and for the upgrading of its existing services, so that they may be able to offer easier access to information and better communication.

The new information system of the University of Montenegro - NISUCG must include the development of the Rectorate's site, the sites of all organizational units, and the web portals whose functionality should be equivalent to the existing applications: Student Records + SNIKE, Personal Income Calculator, and Accounting and Finances.

It is necessary that NISUCG is implemented as an integrated system with a central repository (database) with a distributed data entry (depending on the role, multiple users can manipulate the data). Designing a single database schema at the logical and implementation level would eliminate the existing problems of data inconsistency.

The development of NISUCG should be dominantly realised through the development of dynamic web pages. Dynamic contents are to be generated from the database. It is necessary that the complete NISUCG is incorporated into a single base. The entire work on the development of NISUCG necessitates close cooperation with Information System Centre staff, so asto achieve homogenization of existing repositories and not to undermine the key segments of the existing information system.

Particular attention must be paid to security. When it comes to particularly important materials (such as documents that are designated as internal by the regulations of the University of Montenegro), an access through HTTPS protocol with appropriate certificates will be necessary.

It is also immensely important to look at the problem of the insufficient participation of students, who have not acquired the habits of frequently visiting the platform and reviewing the available information and, thus, do not partake in an interactive communication with their colleagues

and staff, but rather focus on the site's review of the pages of individual faculties and the specific sections related to individual cases, tests and midterm results, and the like. It has been noted that academic staff insufficiently regularly update information, and that in the process of creating the website, significant resistance to data transparency and the primary idea of the availability of information for all is noted.

Communication between the academic and the administrative staff takes place through the academic network. Also, some of the students have had the opportunity to use the so-called temporary academic e-mail address. However, in the upcoming period, it would be important for all students to obtain an institutional e-mail address, at the moment of enrolling. It is necessary to analyse, and solve, the problem of irregular use of academic e-mail by a part of the academic staff, which can make significant communication problems.

7. Internationalization

The evaluation report of 2014, in the part concerning UoM's involvement in internationalization, states an impression about independent faculties/institutes and the lack of capacity for strategic planning at the central level. To overcome this situation, in 2016, our university adopted the Strategy of Internationalization (http://www.ucg.ac.me/objava/blog/1020/objava/10502-internationalization-strategy-university-of-montenegro) that defines the vision, mission, and the goals of internationalization for the period 2016-2020. This strategy should undoubtedly ensure that all the activities that individual organizational units undertake in this area are in line with those defined at the university's level. In the following period, the Action Plan for the implementation of the Strategy needs to be further developed. It will clearly define the roles and responsibilities of the individual actors, deadlines for the implementation of the designed activities, and indicators for measuring the achievement of the set goals. This will partially satisfy the evaluator's advice that a regular evaluation of the internationalization activities is required, while the task will additionally be achieved due to the Ministry of Education's requirement for regular reporting on the implementation of the Strategy. In the coming period, an evaluation of the mobility of students and teachers will be introduced, while the realization of international projects will be closely monitored.

The Evaluation team emphasized that doctoral students should be more involved in the mobility programmes in order to gain access to the necessary infrastructure and international research teams. Through participation in the Erasmus+ program, as well as through cooperation with over 70 European Union universities, our university offered scholarships for Ph.D. students for the duration of one or two semesters. However, it turned out that the scholarships for doctoral studies were the least taken advantage of, which suggests that additional work should be done on creating conditions that will allow students of doctoral studies to use the benefits provided by the Erasmus+ program.

One of the Evaluation Team's remarks was also the lack of support services for foreign and domestic students who participate in mobility programs. In this regard, we have worked on improving the services provided to foreign students both before their arrival and upon their arrival at UoM. The website of the International Relations Office offers foreign students information on the university's academic offers, the contact details of the vice-deans for international relations at individual faculties, the actual academic calendar, information about accommodation (dormitory or in private housing) Montenegrin language courses, and other practical information. A guide for incoming students is available in electronic form on the website of the International Relations Office (http://www.ucg.ac.me/objava/blog/19379/objava/13393-incoming-students-guide). Since 2014, it has been possible for all foreign students to be accommodated in a student dormitory. The so-called "Buddy Network," consisting of local students, is also formed to help foreign students integrate into our academic community.

As for UoM students interested in participating in exchange programmes, information on exchange programmes is available on the website of the International Relations Office. Additionally, this Office informs students about mobility programmes through information days organized both at the Rectorate and at individual faculties. The Office staff is available to all the students from 1pm to 3pm, Monday through Thursday. For the students who are going to exchange within the Erasmus+ programme, the so-called "Pre-departure" meetings are organized that, apart from the staff of the Office, are also attended by the students who participated in some of the exchange programmes. Deans for international cooperation provide students with support when it comes to compiling their Learning Agreements.

Although participation in the Erasmus+ programme has led to a significant increase in the number of students and staff participating in exchanges, as well as the number of foreign lecturers

coming to the university, our university is still well below the desired amount of participation in the programme, and should continue working on its increase in the future. UoM still does not offer studies in the English language, which is a major problem in attracting a larger number of foreign students. Accreditation in the study programmes offered in English should be the first step in addressing this shortcoming. In this area, we expect the adoption of an amendment to the Law on Higher Education, which is to regulate the method of accreditation of study programmes taught in English.

The Evaluation Report recommended that when the students return from the mobility programme, the accumulation of credits earned through the mobility programme should be recognised, rather than the subjects attended and passed at a foreign university. In this regard, an amendment to the actual Mobility Rules should be considered. The rules should also be supplemented in the part relating to exchange for the purpose of practical training, since, beginning with this year, Erasmus+ programme also offers this very possibility.

One of the remarks of the Evaluation team also concerned the limited mobility of academic staff. This has been significantly improved recently, through participation in the Erasmus+ program, which further motivates staff to improve in terms of their English language acquisition.

Regarding the suggestion that UoM should develop strategic partnerships with the universities from the region and the EU, intensive cooperation with the universities in Ljubljana, Maribor, Zagreb, Split, Mostar, Valona, Tirana, Shkodra, etc. has been developed over the years. Through the Erasmus+ credit mobility programme, a number of strategic partnerships with European universities have been established. Double degree programmes have been developed with the University of Tours, in the field of French Language and Literature, with the University of Ljubljana, in the field of Political Sciences, with the University of Sofia Antipolis from Nice, in the field of Economics, while cooperation with the University of Grenoble in France has been established in the form of joint mentoring of doctoral studies in the field of Electrical Engineering.

Within the framework of the HERIC Grant Scheme for Institutional Development, UoM implemented the project **Development of the Centre for International Cooperation and Career Development**. The main objective of the project was to improve the efficiency in the field of international cooperation (the development of defined processes and guidelines related to the responsibilities and responsibilities of stakeholders involved in the implementation of exchange programmes for students, the teaching and administrative staff of UoM, the implementation of bilateral agreements and international projects). Software for the administration of mobility and bilateral cooperation that, in addition to improving the efficiency of these endeavours, will enable an improved monitoring of activities and data collection for reporting and decision-making purposes.

Within the same grant scheme, the **International Certification of maritime education in Montenegro - EDUMAR** was funded. Among others, this project envisages an international certification of maritime education programs which are harmonised within international standards prescribed by the International Maritime Organization (IMO). Certification of the programmes, in the field of nautical studies, shipbuilding, and maritime electrical engineering, which are harmonised with the IMO STCW Convention, issued by recognized maritime certification institutions, will position the UoM / Maritime faculty Kotor and maritime education of Montenegro on the IMO's list of recognized international maritime educational institutions.

8. Conclusion

To identify the advantages and disadvantages of the existing system, the university conducted an honest and factual self-evaluation. In the future, it is necessary to carry out the following activities:

- It is necessary to define the ways in which a part of personal incomes would be earned through scientific research, which would significantly contribute to the improvement of research. As noted above, the constant monitoring of the functionality of the website is necessary for better integration of the UoM academic community. Based on the experience gained through the work of newly formed boards, UoM should review the competencies and roles of the professional committees in the coming period. Development of a general strategy that will define the main goals of UoM's development is the key challenge for further integrated functioning of all the segments of its activity, which, in turn, will enable UoM's improved competitiveness at the international level.
- To meet EHEA standards, it is necessary to make additional efforts to achieve the full implementation of learning outcomes in the ECTS catalogue and the precise correlation between exam conditions and learning outcomes. It is necessary to work on reducing the number of student groups for lectures and seminars to enable learning based on problem-solving and student-centred learning. UoM should make significant efforts to monitor the realization of practical lessons in order to identify possible problems and enable their successful solution. Consequently, it is necessary to introduce innovative modalities that will be focused on practical knowledge.
- It is necessary to provide cooperation with stakeholders which would offer strong support for the implementation of the Lifelong Learning Strategy. In this context, it will be necessary to adopt a strategic approach to cooperation with external partners when it comes to research and joint development of practical teaching. Also, UoM must make additional efforts to make itself more visible in Montenegrin society. In this regard, it is necessary not only to strengthen partnerships with companies and public institutions, which are the key agents in practical training, but UoM should also organize different types of socially responsible activities important for the society at large.
- It is necessary to provide adequate conditions for increasing the number of doctoral students at the University of Montenegro, by providing additional financial resources for doctoral candidates, promoting and increasing an interest in doctoral studies, as well as through the construction of a systemic framework for increasing the demand for PhD holders in the economy. Stimulating a multidisciplinary and interdisciplinary research environment is necessary for efficient and maximum exploitation of research potentials, as well as for the training of young researchers. As stated earlier, additional mechanisms need to be found to evaluate scientific research.
- It is necessary to introduce the university's academic and administrative staff with the principles of quality management. The Centre plans a variety of educational activities through which its academic and administrative staff, as well as students, will become acquainted with the principles of the quality system and numerous other ways of contributing to its improvement and to a more efficient functioning of study programmes and faculties. They will be acquainted with procedures and valid rules that will affect spreading of the quality culture at UoM. It is necessary to improve the space concerning further optimization of the evaluation system (student surveys, etc.), the work of the committees for the improvement

and the quality assurance system, for the cooperation with the economy, and for strengthening the quality of research. The activities in the coming period will be focused on these areas. Taking into account the dynamics of the market, it is necessary to monitor the trends and to develop and harmonize the study programmes in relation to them.

To promote mobility, and the system for providing service and practical information, it is necessary to introduce improvements in all the stages of mobility, starting with dissemination, over selection, support, recognition, to the evaluation of the mobility process. In this sense, it is necessary to strengthen and expand the capacities of the International Relations Office and to enable coordination of its work with a network of academic and administrative staff. Thus, we will be able to support international cooperation activities at the level of individual university units. It is necessary to redesign the Rules on Mobility, with the aim of achieving the full sense of the credit mobility at the university, especially among the students. In the segment concerning recognition, recognition based on credits, and not on courses, should be applied. Also, uniform guidelines should be adopted at all the university units when it comes to recognizing the results achieved at the host institution, as well as their proper introduction within the diploma supplement. It is necessary to develop English language skills through an offer of elective courses or a group of courses, for example within master studies, both for incoming and domestic students, which would strengthen internationalization not only when outgoing mobility is concerned, but also at UoM itself. This would definitely influence the increase of incoming mobility, which, at this time, is less developed than the outgoing mobility.

There is obviously much room for improvement, but there is also an awareness of the aspects that necessitate devoted work in the coming period. The team also noted that there is a will to further improve these areas and to support the modernization of the overall system.

ANNEX 1 – THE UNIVERSITY OF MONTENEGRO'S MANAGERIAL STRUCTURE, CENTRAL ADMINISTRATION, AND SUPPORT SERVICES



ANNEX 2 – AN OVERVIEW OF THE INFRASTRUCTURAL CAPACITY OF THE UNIVERSITY OF MONTENEGRO

UNIT /BUILDING / PURPOSE OR THE	BUILI	DING					for to st	eachi tudyi	0	tiall	roc ei	-	he :	atisfying
NAME OF THE DEPARTMENT	Type of the building: (A) - faculty building (B) - rented or leasedCity/TownSurface m²Surface m²City/TownSurface m²Surface m²Surface m²Surface m²Surface m²Surface m²Surface m²Surface m²Surface m²Surface m²Surface m²Surface m²Surface m²Surface m²Surface 								Other premises ⁴	The total number functionality of premises ⁵				
		1. FACUL	TY OF AR		ECTURE	1			1					
Faculty of Architecture building	(A)	Podgorica	832,06			4	1	-	1		6	4	-	
Engineering Faculties' building	(A)	Podgorica	224, 24	3,7	39,8	4	-		-	1	-	-	-	
Rectorate building	(A)	Podgorica	100			1	-		-		-	-	-	
		ECHNICA	L FAC	ULTY										

² The total number of staff at the University of Montenegro consists of academic staff, associates, professional staff, and administrative staff. ³ The number shown in this column includes offices for management, administration, student services, accounting, and room for student organizations.

⁴ The number shown in this column refers to the premises with multifunctional use.

⁵Note: In accordance with the licensing process of higher education institutions, and with the Law on Higher Education and the Rulebook on the requirements for establishing, performing activities, licensing procedure and the way of keeping a register of higher education institutions, on May 12, 2017, the University of Montenegro submitted the Application for licensing under the new accreditation (number 01/3 - 1265) and concluded that the premises where the faculty units are located are functional for both teaching and conducting administrative tasks.

UNIT /BUILDING / PURPOSE OR THE	BUILI	DING					for to st	eachi tudyi	0	rtiall	The roc er y satisf e needs	ne :	atisfying	
NAME OF THE DEPARTMENT	Type of the building: (A) - faculty building (for one or more units) (B) - rented or leased	City/Town	Surface m ²	Surface per student (m ²)	Surface (m ²) per a member of staff ²	Teaching rooms	Laboratories	Atelier	Library and reading rooms	Computer rooms	Offices for the academic staff	Offices for the administrative ⁱ³ staff	Other premises ⁴	The total number functionality of premises ⁵
Biotechnical Faculty building	(A)	Podgorica	3557											
Centre for subtropical cultures building	(A)	Bar	1080	7,5	50,5									
Centre for continental pomiculture building	(A)	Bijelo Polje	522			13	31	-	1	1	45	12	-	
Experimental plots	(A)	Podgorica, Bar, Bijelo Polje	cca 71 ha											
Greenhouses	(A)	Podgorica, Bar	cca 1800				<u>.</u>	·	·	-	·		2	
		3. FACU	JLTY OF E	CONC	DMICS									
Faculty of Economics building	(A)	Podgorica	6263			12		-	2	4	56	32	3	
Municipality of Bijelo Polje building	(B)	Bijelo Polje	726	2,5	99,8	5	-	-	2	1	3	1	2	
	4. F	ACULTY OF	ELECTRI	CAL F	INGINE	ERIN	G							
Engineering Faculties' building /Faculty of	(A)	Podgorica	6850,65			9	19	-	1	3	33	9	4	

UNIT /BUILDING / PURPOSE OR THE	BUILI	DING					for to	eachi tudyi		rtiall	The roo er y satisf <i>needs</i>	ne :	atisfying	
NAME OF THE DEPARTMENT	Type of the building: (A) - faculty building (for one or more units) (B) - rented or leased	City/Town	Surface m ²	Surface per student (m ²)	Surface (m ²) per a member of staff ²	Teaching rooms	Laboratories	Atelier	Library and reading rooms	Computer rooms	Offices for the academic staff	Offices for the administrative ⁱ³ staff	Other premises ⁴	The total number functionality of premises ⁵
Electrical Engineering				4,2	109,6									
Faculty of Political Sciences and Law Faculty building – laboratory for high voltage	(B)	Podgorica	169,65	-										
		5. FACUL	TY OF DR	AMAT	IC ARTS	5								
Faculty of Dramatic Arts building	(A)	Cetinje	499	8,4	14,6	7 ⁶	-	-	1	-	3	6	2	
		6. FAC	ULTY OF	FINE A	ARTS									
Faculty of Fine Arts building	(B)	Cetinje	1620			3	1	24	1	-	2	5	3	
Art gallery 42°	(A)	Cetinje	160	18,3	54,2	-	-	-	-	-	-	-	2	
Sculpture Studio	(A)	Cetinje	500			-	-	1	-	-	-	-	-	
	7	7. FACULTY	OF POLIT	TICAL	SCIENC	ES								

⁶Faculty of Dramatic Arts has signed agreements on collaboration with Montenegrin National Theatre, Royal Theatre Zetski dom and Television of Montenegro, so that certain capacities of these institutions are used for the purpose of teaching and examinations.

UNIT /BUILDING / PURPOSE OR THE	BUILI	DING									The roo er y satist <i>needs</i>	atisfying		
NAME OF THE DEPARTMENT	Type of the building: (A) - faculty building (for one or more units) (B) - rented or leased	City/Town	Surface m ²	Surface per student (m ²)	Surface (m ²) per a member of staff ²	Teaching rooms	Laboratories	Atelier	Library and reading rooms	Computer rooms	Offices for the academic staff	Offices for the administrative ⁱ³ staff	Other premises ⁴	The total number functionality of premises ⁵
Faculty of Political Sciences and Law Faculty building, II floor (attic)	(A)	Podgorica	1550	1,4	64,5	6	-	-	1	1	9	7	2	
	8. FACU	LTY FOR SP	ORT AND	PHYS	ICAL EI	DUCA	TIO	N						
Faculty for Sport and Physical Culture building	(A)	Nikšić	2200	4,9	91,6	12	-	-	1	1	8	6	4	
	9. FACUL	TY OF TOU	RISM ANI	О НОТ	EL MAN	AGE	MEN	T						
Municipality of Kotor building	(B)	Kotor	1225, 11	1,4	55,6	6	-	-	17	1	10	18	-	
		10. FAC	ULTY OF I	PHILO	LOGY									
Faculty of Philosophy and Faculty of Philology building	(A)	Nikšić	8721	67	60.2	22			2	2	28	10	2	
Faculty of Economics building	(A)	Podgorica	8/21	6,7	69,2		-	-	2	2	28	10	2	
	1	11. FACU	ULTY OF P	HILO	SOPHY		1	1	1		I	1		

⁷Maritime faculty library, used by the Maritime Faculty Kotor, Faculty of Tourism and Hotel Management and Institute of Marine Biology

UNIT /BUILDING / PURPOSE OR THE	BUILI	DING				The number of rooms for teaching and studying: + satisfactory +/- partial th				tiall	The roo er y satisf <i>needs</i>	atisfying		
NAME OF THE DEPARTMENT	Type of the building: (A) - faculty building (for one or more units) (B) - rented or leased	City/Town	Surface m ²	Surface per student (m ²)	Surface (m ²) per a member of staff ²	Teaching rooms	Laboratories	Atelier	Library and reading rooms	Computer rooms	Offices for the academic staff	Offices for the administrative ⁱ³ staff	Other premises ⁴	The total number functionality of premises ⁵
Faculty of Philosophy and Faculty of Philology building	(A)	Nikšić	8721	6,1	111,8	21	-	-	1 ⁸	1	35	9	2	
	'	12. CIVIL E	NGINEER	RING F	ACULTY	Y								
Civil Engineering Faculty Building	(A)	Podgorica	2783			11	2	_	19	1	28	14	1	
Engineering Faculties' Building	(A)	Podgorica	332	3,3	61		2	_	1		20	14	1	
	13. F A	ACULTY OF	MECHAN	ICAL	ENGINE	ERI	NG							
Engineering Faculties building/ Faculty of Mechanical Engineering	(A)	Podgorica	5479	11,2	133,6	13	2	-	1	4	40	10	1	
		14. M	EDICAL F	FACUL	TY									

⁸Faculty of Philosophy Library (used by the Faculty of Philosophy and Faculty of Philology).
⁹Library of natural, medical and engineering sciences, located in the engineering faculties building (used by the Faculty of Architecture, Biotechnical Faculty, Faculty of Medicine, Faculty of Civil Engineering, Faculty of Mechanical Engineering, Faculty of Metallurgy and Technology, Faculty of Electrical Engineering and Faculty of Sciences and Mathematics).

UNIT /BUILDING / PURPOSE OR THE	BUILI	DING					for to	eachi tudyi	0	rtiall	The roc ei y satisf e needs	ne :	atisfying	
NAME OF THE DEPARTMENT	Type of the building: (A) - faculty building (for one or more units) (B) - rented or leased	City/Town	Surface m ²	Surface per student (m ²)	Surface (m ²) per a member of staff ²	Teaching rooms	Laboratories	Atelier	Library and reading rooms	Computer rooms	Offices for the academic staff	Offices for the administrative ⁱ³ staff	Other premises ⁴	The total number functionality of premises ⁵
Medical Faculty – Deans Office, Institute for functional group of subjects	(A)	Podgorica	3630											
Institute for morphological group of subjects building	(A)	Podgorica	2100	8,4		17	20	-	1	3	24	24	18	
Dental Polyclinic building	(B)	Podgorica	167		129, 5									
Institute for Physical Medicine, Rehabilitation and Rheumatology building	(B)	Igalo	731	3,7	,	3	3	-	1	1	2	2	1	
College of Nursing building	(B)	Berane	625	2,1		6	2	-	1	1	1	1	2	
	15. FAC	ULTY OF M	ETALLUR	GY AN	ND TECH	INO	LOGY	Y						
Engineering Faculties building/ FMT	(A)	Podgorica	3135	8,8	87	4	13	-	1	1	30	8	1	
		16. I	MUSIC AC	CADEM	IY									
Music Academy building	(B)	Cetinje	620	5,9	19,3	10		-	1 10	-	3	4	4	
		17. MARI	FIME FAC	ULTY	KOTOR									

¹⁰Art library, joint library of the Faculty of Fine Art, Music Academy and the Faculty of Dramatic Arts (located at the Faculty of Fine Arts).

UNIT /BUILDING / PURPOSE OR THE	BUILI	DING				The number of rooms for teaching and studying: The number rooms for t employees + satisfactory +/- partially satisfactory - the needs -						he :		
NAME OF THE DEPARTMENT	Type of the building: (A) - faculty building (for one or more units) (B) - rented or leased	City/Town	Surface m ²	Surface per student (m ²)	Surface (m ²) per a member of staff ²	Teaching rooms	Laboratories	Atelier	Library and reading rooms	Computer rooms	Offices for the academic staff	Offices for the administrative ⁱ³ staff	Other premises ⁴	The total number functionality of premises ⁵
Maritime Faculty Kotor building	(B)	Kotor	620	0,6	16,3	11	2	-	1	2	12	10	9	
		18	. LAW FAC	CULTY	ζ									
Law Faculty building	(A)	Podgorica	597,36	0,3		5	1^{11}	-	1	1	24	15	1	
Municipality of Bijelo Polje building	(B)	Bijelo Polje	300	1,7	20,86	3	-	-	1	-	2	1	-	
	19. FA	CULTY OF S	SCIENCES	AND	MATHE	MAT	ICS	_						
Engineering Faculties building and Biology and Biotechnical Institute building	(A)	Podgorica	1121	1,1	12	10	22	-	1	3	42	8	-	
		20. INSTITU	JT OF MA	RINE I	BIOLOG	Y								
Institute of Marine Biology building	(A)	Kotor	2057	-	73,46	-	8		1		4	2	6	
		21. INS'	FITUTE O	F HIST	FORY									
Institute of History building	(A)	Podgorica	1218	-	71,64	2	-	-	1	1	8	4	9	+/-

¹¹Used by the Faculty of Electrical Engineering

UNIT /BUILDING / PURPOSE OR THE	BUILI	DING					for to st	eachi tudyi	0	rtiall	roc ei	•	ne :	atisfying
NAME OF THE DEPARTMENT	Type of the building: (A) - faculty building (for one or more units) (B) - rented or leased	City/Town	Surface m ²	Surface per student (m ²)	Surface (m ²) per a member of staff ²	Teaching rooms	Laboratories	Atelier	Library and reading rooms	Computer rooms	Offices for the academic staff	Offices for the administrative ⁱ³ staff	Other premises ⁴	The total number functionality of premises ⁵
	22. U	NIVERSITY	SPORT -	CULT	URAL CH	ENTI	ER							
University Sport - Cultural centre building	В	Podgorica	3297,04	-	-	2	-	-	-	-	-	6	5	+
Premises in the Rectorate are Montenegrin Music Centre, a	•		3. RECTO		stem Cent	re, U	niver	sity I	_ibrary,	Facu	ilty of 4	Architectu	ıre,	
Rectorate building	(A)	Podgorica	5928										+	+

ANNEX 3 – BUDGETARY DATA

TABLE: UoM TOTAL REVENUES BY CATEGORY

Year	Total revenues of the UoM, (€)	State budget revenues, (€)	UoM own revenues, (€)
2015	30,375,782.00	15,426,122.00	14,949,660.00
2016	31,825,743.00	16,857,228.00	14,968,515.00
2017	29,373,697.00	17,357,228.00	12,016,469.00



FIGURE: UoM TOTAL REVENUES BY CATEGORY



FIGURE: THE RATIO BETWEEN OWN AND BUDGET REVENUES

TABLE: UoM TOTAL OWN REVENUES BY CATEGORY

	Total own revenues	International and national projects	Tuition fees and market	Property sale revenues	nt of loans	Donations	Transfers from institutions	Other revenues
	(€)	(€)	revenues (€)	(€)	revenues (€)	(€)	(€)	(€)
2015	14,949,660.00	3,524,612.00	10,409,887.00	263,343.00	11,443.00	104,833.00	634,511.00	31.00
2016	14,968,515.00	4,341,388.00	9,825,670.00	87,899.00	0.00	5,178.00	650,124.00	11,654.00
2017	12,016,469.00	2,287,121.00	9,017,518.00	15,947.00	0.00	93,149.00	594,738.00	7,997.00



FIGURE: UoM TOTAL OWN REVENUES BY CATEGORY


FIGURE: UoM TOTAL OWN REVENUES BY CATEGORY

TABLE: OVERVIEW OF REVENUES BY FACULTY AND INSTITUTE IN 2015

2015	Funding from the state Budget, (€)	Salaries for teachers and researchers, (€)
FACULTY OF ECONOMICS	878,877.44	687,289.76
FACULTY OF ELECTRICAL		
ENGINEERING	976,090.24	790,561.70
FACULTY OF PHILOSOPHY	1,980,470.66	1,410,960.09
FACULTY OF LAW	665,378.58	523,788.42
FACULTY OF MECHANICAL		
ENGINEERING	670,569.32	577,900.69
FACULTY OF METALLURGY AND		
TECHNOLOGY	553,130.46	418,420.74
FACULTY OF SCIENCES AND		
MATHEMATICS	1,408,800.28	1,177,808.58
FACULTY OF CIVIL ENGINEERING	653,888.40	481,624.70
FACULTY OF MEDICINE	514,249.29	258,450.14
MARITIME FACULTY KOTOR	606,436.55	419,331.93
MUSIC ACADEMY	426,532.64	280,895.96
FACULTY OF FINE ARTS	647,443.00	551,155.26
FACULTY OF DRAMATIC ARTS	397,644.00	328,346.45
FACULTY OF TOURISM AND		
HOTEL MANAGEMENT	266,652.92	158,687.91
FACULTY OF POLITICAL		
SCIENCES	277,260.35	202,544.73
FACULTY OF ARCHITECTURE	367,083.80	285,974.32
FACULTY OF SPORT AND		
PHYSICAL EDUCATION	265,687.98	213,593.91
FACULTY OF PHILOLOGY	678,179.93	592,836.40
BIOTECHNICAL FACULTY	1,119,438.50	321,538.76
INSTITUTE OF HISTORY	252,953.80	252,953.80
INSTITUTE OF MARINE BIOLOGY	309,464.76	315,485.67
	13,916,232.90	10,250,149.92



FIGURE: OVERVIEW OF REVENUES BY FACULTYAND INSTITUTE IN 2015

	Funding from the	Salaries for teachers
2016	state Budget, (€)	and researchers, (€)
FACULTY OF ECONOMICS	868,908.00	727,917.28
FACULTY OF ELECTRICAL		
ENGINEERING	1,012,411.20	829,488.17
FACULTY OF PHILOSOPHY	1,075,967.45	903,210.41
FACULTY OF LAW	656,287.43	530,677.33
FACULTY OF MECHANICAL		
ENGINEERING	702,437.03	604,702.37
FACULTY OF METALLURGY AND		
TECHNOLOGY	523,183.73	382,102.37
FACULTY OF SCIENCES AND	1 450 202 00	1 252 460 00
MATHEMATICS	1,458,393.09	1,252,460.98
FACULTY OF CIVIL ENGINEERING	652,617.34	509,768.81
FACULTY OF MEDICINE	512,216.34	261,550.76
MARITIME FACULTY KOTOR	527,652.68	365,402.90
MUSIC ACADEMY	443,329.82	296,322.17
FACULTY OF FINE ARTS	625,228.10	545,557.10
FACULTY OF DRAMATIC ARTS	419,364.02	348,562.02
FACULTY OF TOURISM AND HOTEL		
MANAGEMENT	251,181.90	151,343.77
FACULTY OF POLITICAL SCIENCES	311,538.04	257,413.40
FACULTY OF ARCHITECTURE	390,165.86	311,734.11
FACULTY OF SPORT AND PHYSICAL		
EDUCATION	295,581.89	246,759.99
FACULTY OF PHILOLOGY	1,659,624.44	1,287,302.61
BIOTECHNICAL FACULTY	1,145,946.85	343,273.12
INSTITUTE OF HISTORY	233,584.88	233,584.88
INSTITUTE OF MARINE BIOLOGY	291,167.79	291,167.79
	14,056,787.88	10,680,302.34

TABLE: OVERVIEW OF REVENUES BY FACULTY AND INSTITUTE IN 2016



FIGURE: OVERVIEW OF REVENUES BY FACULTY AND INSTITUTE IN 2016

	Funding from the	Salaries for teachers
2017	state Budget, (€)	and researchers, (€)
FACULTY OF ECONOMICS	1,085,209.40	844,529.92
FACULTY OF ELECTRICAL		
ENGINEERING	1,159,234.93	984,154.54
FACULTY OF PHILOSOPHY	1,248,695.62	1,051,231.81
FACULTY OF LAW	733,313.06	599,101.76
FACULTY OF MECHANICAL		
ENGINEERING	774,730.57	675,083.73
FACULTY OF METALLURGY AND		
TECHNOLOGY	604,550.14	425,976.53
FACULTY OF SCIENCES AND	1 725 907 29	1 501 467 51
MATHEMATICS	1,725,897.28	1,501,467.51
FACULTY OF CIVIL ENGINEERING	752,635.47	598,084.76
FACULTY OF MEDICINE	667,965.23	366,241.27
MARITIME FACULTY KOTOR	590,253.35	404,808.99
MUSIC ACADEMY	502,339.01	340,821.06
FACULTY OF FINE ARTS	678,895.19	595,327.11
FACULTY OF DRAMATIC ARTS	517,806.80	420,175.26
FACULTY OF TOURISM AND HOTEL		
MANAGEMENT	272,874.68	194,871.45
FACULTY OF POLITICAL SCIENCES	362,465.23	290,314.94
FACULTY OF ARCHITECTURE	462,449.53	372975.82
FACULTY OF SPORT AND PHYSICAL		
EDUCATION	344,594.65	291,613.56
FACULTY OF PHILOLOGY	2,001,585.67	1,530,219.58
BIOTECHNICAL FACULTY	1,309,385.63	411,042.63
INSTITUTE OF HISTORY	238,579.29	238,579.29
INSTITUTE OF MARINE BIOLOGY	306,997.54	306,997.54
	16,340,458.27	12,443619.06

TABLE: OVERVIEW OF REVENUES BY FACUTY AND INSTITUTE IN 2017^{12}

¹²Overview includes only academic staff (teachers and teaching associates), aggregate data and separate for teaching and research



FIGURE: OVERVIEW OF REVENUES BY FACUTY AND INSTITUTE IN 2017

TABLE: SHARE OF SALARIES IN THE TOTAL FUNDS RECEIVED FROM THE STATE

	Funding from the state Budget (€)	Salaries for teachers and researchers, (€)
2015	13,916,232.90	10,250,149.92
2016	14,056,787.88	10,680,302.34
2017	16,340,458.27	12,443,619.06



FIGURE: SHARE OF SALARIES IN THE TOTAL STATE BUDGET REVENUES

ANNEX 4 - UNDERGRADUATE, SPECIALIST, MASTER, AND DOCTORAL STUDENTS

TABLE: UNDERGRADUATE STUDENTS

Overview of the total number of students (Σ) and breakdown by gender (M-male, F-female) at undergraduate studies

	ACADEMIC YEAR								
	,	2015/16			2016/17			2017/18	3
UNIT	Μ	F	Σ	Μ	F	Σ	Μ	F	Σ
FACULTY OF									
ARCHITECTURE	106	122	228	102	124	226	91	113	204
BIOTECHNICAL FACULTY	287	285	572	272	271	543	266	284	550
FACULTY OF ECONOMICS	1,190	1,932	3,122	1,019	1,798	2,817	892	1,630	2,522
FACULTY OF ELECTRICAL									
ENGINEERING	986	287	1,273	989	313	1,302	993	304	1,297
FACULTY OF DRAMATIC									
ARTS	26	16	42	20	15	35	22	21	43
FACULTY OF FINE ARTS	35	43	78	36	43	79	30	49	79
FACULTY OF POLITICAL									
SCIENCES	211	748	959	194	724	918	175	607	782
FACULTY OF SPORT AND									
PHYSICAL EDUCATION	338	52	390	304	60	364	300	66	366
FACULTY OF TOURISM									
AND HOTEL									
MANAGEMENT	239	561	800	216	506	722	213	468	681
FACULTY OF PHILOLOGY	224	860	1,084	229	842	1,071	234	845	1,079
FACULTY OF									
PHILOSOPHY	423	918	1341	389	906	1,295	380	862	1,242
FACULTY OF CIVIL									
ENGINEERING	503	279	782	474	291	765	439	279	718
FACULTY OF									
MECHANICAL									
ENGINEERING	297	61	358	313	69	382	330	99	429
FACULTY OF MEDICINE	289	775	1,064	328	801	1,129	337	842	1,179
FACULTY OF									
METALLURGY AND									
TECHNOLOGY	86	218	304	91	209	300	82	224	306
MUSIC ACADEMY	36	54	90	37	41	78	43	34	77
MARITIME FACULTY									
KOTOR	1,010	238	1,248	930	196	1,126	843	172	1,015
FACULTY OF LAW	924	1,560	2,484	800	1,462	2,262	682	1,316	1,998
FACULTY OF SCIENCES									
AND MATHEMATICS	335	468	803	325	497	822	334	513	847
UNIVERSITY	7,545	9,477	17,022	7,068	9,168	16,236	6,686	8,728	15,414



FIGURE: DISTRIBUTION OF UNDERGRADUATE STUDENTS PER ORGRANISATIONAL UNITS



UNITS



UNITS

ANNEX 5 - STUDENT POPULATION BREAKDOWN BY GENDER





FIGURE: STUDENT POPULATION BREAKDOWN BY GENDER IN 2015/2016



FIGURE: STUDENT POPULATION BREAKDOWN BY GENDER IN 2016/2017



FIGURE: STUDENT POPULATION BREAKDOWN BY GENDER IN 2017/2018

ANNEX 6 - STUDENTS' DEMOGRAPHIC TRENDS

	REGION						
YEAR	Central	Southern	Northern	International			
2015	9,471	2,838	4,409	304			
2016	9,469	2,827	4,409	317			
2017	8,546	2,388	4,125	350			

TABLE: STUDENT POPULATION BREAKDOWN BY REGION





FIGURE: STUDENT POPULATION BREAKDOWN BY REGION

ANNEX 7 - ACADEMIC STAFF RESOURCES

TABLE: UoM NUMBER OF TEACHERS AND RESEARCHERS BY FACULTY AND **INSTITUTE**

	A	R	
UNIT	2015	2016	2017
FACULTY OF ARCHITECTURE	20	20	20
BIOTECHNICAL FACULTY	45	48	45
FACULTY OF ECONOMICS	48	43	46
FACULTY OF ELECTRICAL			
ENGINEERING	49	52	49
FACULTY OF DRAMATIC ARTS	18	22	26
FACULTY OF PHILOLOGY	108	105	100
FACULTY OF PHILOSOPHY	57	60	61
FACULTY OF FINE ARTS	31	30	27
FACULTY OF SPORT AND PHYSICAL			
EDUCATION	14	16	19
FACULTY OF CIVIL ENGINEERING	42	42	42
INSTITUTE FOR MARINE BIOLOGY	18	16	16
INSTITUTE OF HISTORY	10	12	10
FACULTY OF MECHANICAL			
ENGINEERING	34	30	29
FACULTY OF MEDICINE ²	19	19	20
FACULTY OF METALLURGY AND			
TECHNOLOGY	29	28	28
MUSIC ACADEMY	20	19	17
FACULTY OF SCIENCES AND			
MATHEMATICS	68	72	73
FACULTY OF POLITICAL SCIENCES	17	18	13
MARITIME FACULTY KOTOR	23	23	22
FACULTY OF LAW	29	29	28
FACULTY OF TOURISM AND HOTEL			
MANAGEMENT	11	8	13
UNIVERSITY	710	712	704

¹The overview does not include categories laboratory technician, senior laboratory technician, professional associate, senior professional associate, lector and senior lector ²The number does not include professors – physicians who are working part-time at the UoM (clinicians)



ANNEX 8 - BREAKDOWN BY ACADEMIC TITLE AT UoM

FIGURE: BREAKDOWN BY ACADEMIC TITLE AT UoM

ANNEX 9 - BREAKDOWN OF ACADEMIC STAFF BY TITLE, AGE AND GENDER

TABLE: DATA OVERVIEW

	Age				Gender	
2015/2016	21 - 30	31 - 40	41 - 50	over 50	М	F
1.Full professor	0	1	44	125	118	55
2.Associate professor	0	19	75	46	66	61
3.Assistant professor	1	56	57	21	65	77
4. Teaching and research assistants	64	126	42	27	96	172
2016/2017	21 - 30	31 - 40	41 - 50	over 50	М	F
1.Full professor	0	0	46	126	117	55
2.Associate professor	0	19	79	48	74	72
3.Assistant professor	1	63	44	18	59	67
4. Teaching and research assistants	68	121	48	31	103	165
2017/2018	21 - 30	31 - 40	41 - 50	over 50	М	F
1.Full professor	0	1	44	125	114	56
2.Associate professor	0	19	75	46	67	73
3.Assistant professor	1	56	57	21	65	70
4. Teaching and research assistants	64	126	42	27	94	165



FIGURE: BREAKDOWN OF ACADEMIC STAFF BY AGE



59

ANNEX 10 - BREAKDOWN OF ACADEMIC STAFF BY RESEARCH FIELD

TABLE: BREAKDOWN OF ACADEMIC STAFF BY RESEARCH FIELD						
2015 2016 201						
Social Sciences and Humanities	280	275	271			
Natural and Engineering Sciences	361	366	363			
Arts	69	71	70			







FIGURE: BREAKDOWN OF ACADEMIC STAF BY RESEARCH FIELD

ANNEX 11 – STUDENT-TEACHER RATIO

TABLE: STUDENT-TEACHER RATIO¹

	ACADEMIC YEAR								
		2015/16			2016/17			2017/18	
UNIT	Students	Teachers	Ratio	Students	Teachers	Ratio	Students	Teachers	Ratio
FACULTY OF ARCHITECTURE	295	20	14.75	320	20	16.00	306	20	15.30
BIOTECHNICAL FACULTY	670	45	14.89	659	48	13.73	680	45	15.11
FACULTY OF ECONOMICS	3,324	48	69.25	3,024	43	70.33	2,722	46	59.17
FACULTY OF ELECTRICAL									
ENGINEERING	1,648	49	33.63	1,682	52	32.35	1,652	49	33.71
FACULTY OF DRAMATIC ARTS	64	18	3.56	63	22	2.86	59	26	2.27
FACULTY OF FINE ARTS	124	31	4.00	108	30	3.60	124	27	4.59
FACULTY OF POLITICAL SCIENCES	1,195	17	70.29	1,204	18	66.89	1,095	13	84.23
FACULTY OF SPORT AND PHYSICAL									
EDUCATION	471	14	33.64	449	16	28.06	448	19	23.58
FACULTY OF TOURISM AND HOTEL									
MANAGEMENT	967	11	87.91	904	8	113.00	855	13	65.77
FACULTY OF PHILOLOGY	1,308	108	12.11	1,305	105	12.43	1,299	100	12.99
FACULTY OF PHILOSOPHY	1,539	57	27.00	1,528	60	25.47	1,413	61	23.16
FACULTY OF CIVIL ENGINEERING	963	42	22.93	970	42	23.10	939	42	22.36
FACULTY OF MECHANICAL									
ENGINEERING	436	34	12.82	454	30	15.13	486	29	16.76
FACULTY OF MEDICINE	1,147	19	60.37	1,217	19	64.05	1,242	20	62.10
FACULTY OF METALLURGY AND									
TECHNOLOGY	353	29	12.17	353	28	12.61	355	28	12.68
MUSIC ACADEMY	124	20	6.20	111	19	5.84	105	17	6.18
MARITIME FACULTY KOTOR	1,355	23	58.91	1,236	23	53.74	1,112	22	50.55
FACULTY OF LAW	2,726	29	94.00	2,586	29	89.17	2,301	28	82.18
FACULTY OF SCIENCES AND									
MATHEMATICS	909	68	13.37	990	72	13.75	973	73	13.33
UNIVERSITY									
Min			3.56			2.86			2.27
Max			94.00			113.00			84.23
Mean			34.31			34.85			31.90

¹Cases when a teacher is elected into a title at more than one unit, when they have classes at other units assigned through internal call and clinicians at the Medical Faculty have not been taken into account

ANNEX 12 - AVERAGE STUDY LENGTH

TABLE: STUDY LENGTH IN YEARS

	ACADEMIC YEAR				
UNIT	2015	2016	2017		
FACULTY OF ARCHITECTURE	4.54	3.94	4.21		
BIOTECHNICAL FACULTY	3.69	4.51	3.70		
FACULTY OF ECONOMICS ¹	4.97	4.98	4.92		
FACULTY OF ELECTRICAL					
ENGINEERING	4.52	5.07	4.45		
FACULTY OF DRAMATIC ARTS	3.43	3.53	3.68		
FACULTY OF FINE ARTS	3.22	3.43	3.52		
FACULTY OF POLITICAL					
SCIENCES	4.02	4.85	4.30		
FACULTY OF SPORT AND					
PHYSICAL EDUCATION	4.67	5.53	4.95		
FACULTY OF TOURISM AND					
HOTEL MANAGEMENT	4.86	4.94	4.48		
FACULTY OF PHILOLOGY	4.43	4.73	4.63		
FACULTY OF PHILOSOPHY	4.89	5.17	4.99		
FACULTY OF CIVIL ENGINEERING	4.41	4.54	4.55		
FACULTY OF MECHANICAL					
ENGINEERING	4.78	3.77	3.73		
FACULTY OF MEDICINE ²	5.44	6.42	5.50		
FACULTY OF METALLURGY AND					
TECHNOLOGY	4.03	4.29	4.32		
MUSIC ACADEMY	4.98	6.11	3.36		
MARITIME FACULTY KOTOR	4.27	4.91	4.34		
FACULTY OF LAW	5.97	5.67	6.12		
FACULTY OF SCIENCES AND					
MATHEMATICS	4.30	5.21	5.62		
UNIVERSITY					
Mean	4.50	4.82	4.49		

 ¹ Study programme Economics lasts four years, while study programme Management lasts three years
² Study programme Medicine lasts six years, study programme Dentistry and study programme Pharmacy last five years, while study programmes Applied Physiotherapy and College of Nursing last three years each

ANNEX 13 - STUDENT DROP-OUT RATE

TABLE: DROP-OUT RATE

	ACADEMIC YEAR				
UNIT	2015	2016	2017		
FACULTY OF ARCHITECTURE	1.69	0.63	0.65		
BIOTECHNICAL FACULTY	1.64	3.79	1.91		
FACULTY OF ECONOMICS	2.98	2.98	2.17		
FACULTY OF ELECTRICAL					
ENGINEERING	4.73	3.45	1.45		
FACULTY OF DRAMATIC ARTS	1.56	1.59	1.69		
FACULTY OF FINE ARTS	2.42	1.85	0.00		
FACULTY OF POLITICAL					
SCIENCES	1.34	1.58	0.64		
FACULTY OF SPORT AND					
PHYSICAL EDUCATION	2.76	3.56	3.13		
FACULTY OF TOURISM AND					
HOTEL MANAGEMENT	0.31	2.77	3.51		
FACULTY OF PHILOLOGY	1.07	2.76	1.31		
FACULTY OF PHILOSOPHY	2.01	1.83	1.13		
FACULTY OF CIVIL ENGINEERING	3.01	3.51	1.28		
FACULTY OF MECHANICAL					
ENGINEERING	12.16	12.56	3.50		
FACULTY OF MEDICINE	1.66	1.73	1.37		
FACULTY OF METALLURGY AND					
TECHNOLOGY	7.65	7.37	3.10		
MUSIC ACADEMY	4.84	1.80	1.90		
MARITIME FACULTY KOTOR	4.43	5.91	1.71		
FACULTY OF LAW	4.04	3.13	2.48		
FACULTY OF SCIENCES AND					
MATHEMATICS	8.03	9.09	2.77		
UNIVERSITY					
Mean	3.60	3.78	1.88		