



Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE

**SELF-EVALUATION REPORT
OF THE
Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE
(in the period 2010/2011-2012/2013)**

Skopje, June 2014

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1. Introduction

As member of the European University Association (EUA), the Ss. Cyril and Methodius University in Skopje, working in accordance with the European University Association Institutional Evaluation Program and following the guidelines for implementation of self-evaluation and external evaluation, underwent three evaluation processes in the past period – the first evaluation took place in 2003, the second one in 2008 and, upon initiative and with financial support by the World Bank, third evaluation was carried out in 2011.

Starting from the need for external, objective assessment and the necessity to ensure continuous development and quality in all areas of work, the University Senate, at the 14th session held on 29 November 2013 adopted a Decision for Selection of Members of the Evaluation Commission with a four-year mandate. The composition of this Commission is as follows: *Prof. Sonja Alabakovska Ph.D.* from the Medical Faculty, *Prof. Dimitar Tashkovski Ph.D.* from the Faculty of Electrical Engineering and Information Technologies, *Prof. Mitko Mladenov Ph.D.* from the Faculty of Natural Sciences and Mathematics, *Prof. Zehra Hajrulai-Musliu Ph.D.* from the Faculty of Veterinary Medicine, *Prof. Ganka Cvetanova Ph.D.* from the Institute of Sociological, Political and Juridical Research, *Prof. Goran Trpchevski MA* from the Faculty of Dramatic Arts, *Simona Dimovska* and *Marija Vasilevska* – both students at the “Iustinianus Primus” Faculty of Law and *Marija Rajchevska*, student at the Faculty of Economy.

At the 16th session of the University Senate held on 31 January 2014 a Decision was adopted for initiation of procedure for implementation of external evaluation of UKIM, which is to be carried out by EUA experts as well as allocation of funding for implementation of the evaluation process.

In order to implement the obligations from the Law on Higher Education of the Republic of Macedonia, the UKIM Evaluation Commission was vested with obligation to carry out the self-evaluation process and develop a Report on the Self-Evaluation of UKIM which will cover the 2010/2011-2012/2013 period. This meant the work in relation to the Report will be carried out in two directions – on one side, it will include the elements established by the Board for Accreditation and Evaluation of the Higher Education in the Republic of Macedonia, and on the other side it will include the structure and the content for institutional evaluation established by the EUA guidelines.

The entire evaluation process is coordinated by the Rector, *Prof. Velimir Stojkovski Ph.D.* and the Vice-rector for Teaching, *Prof. Vlatko Stoilkov Ph.D.*

For the purpose of successful implementation of the evaluation process of the University, cooperation and engagement of the units of UKIM was necessary. The entire university community was informed about the self-evaluation and the external evaluation in timely manner. This included the teaching staff, the administrative staff and the students. All units of UKIM were provided with notification, and special announcement was published on the advertising boards, the web pages of the faculties/ institutes and on the UKIM's website.

The Evaluation Commission commenced its work on 17 January 2014. The members were divided in working groups that were vested with tasks in accordance with the position and competencies of each member, in order to achieve as objective data analysis as possible. The administrative works and the logistical support of the entire self-evaluation process were carried out by a team designated from the administrative service at the Headquarters of UKIM, the Rector's office: *Kostadina Mokrova*, *Marija Cenevska MA*, *Katerina Petreska MA*, *Maja Anastasova Hristova MA* and *Zoran Kordoski*.

The Commission sessions were taking place once a week in order to discuss in details specific segments, data and related analysis. The working groups were in continuous mutual communication, both internally and externally.

The self-evaluation report is result of the Reports on self-evaluation of the UKIM's units, information received by the management bodies and administrative services of the University and its units. In accordance with the Law on Higher Education (Official Gazette of the Republic of Macedonia No.151/2012) and the Statute of UKIM (Official Gazette of the Republic of Macedonia No.156/2008, No.13/2012 and No. 104/2013), the self-evaluation of the units and the University are legal obligations and the self-evaluation process must be carried out every 3 years.

The self-evaluation reports of the UKIM's units, as main source of information, were initially developed by the commissions for self-evaluation of the units, in accordance with the Guidance on Self-evaluation and Provision and Assessment of Quality of the Units of UKIM, adopted by the University Senate on 30 April 2013.

The difficulties faced by the Commission were the volume, type and complexity of information received by the large number of units within the University which were necessary to summarize, analyze and show as required by the EUA Guideline.

The Self-evaluation Report is reviewed and adopted by the Rector, the Rector's Board and the University Senate.

In accordance with the commonly established practice and legal requirements, the Self-evaluation Report, together with the Report on Institutional Evaluation of EUA will be published on the UKIM's website after the end of the evaluation process and submitted to the Ministry of Education and Science.

2. Institutional context

2.1. Historical Overview

The Ss. Cyril and Methodius University was established by the Law on the University adopted by the Assembly of the People's Republic of Macedonia on 26 January 1949 as educational institution of the People's Republic of Macedonia, with three faculties: Faculty of Philosophy, Medical Faculty and Faculty of Agriculture and Forestry. In the year when it was established, the University was carrying out its activity with 77 permanent teachers and associates, and with 989 students.

The Law on Higher Education adopted in the year of 2000 initiated reforms in the higher educational activity of UKIM. These reforms were about involvement of the Single European Higher Education Area in the higher education and implementation of the Bologna Declaration Principles.

In 2008, with the Law on Higher Education, the University harmonized its complete operation with the legal provisions pertaining to integrated autonomous university. The implementation of the new legal framework required new organizational structure, changes in the procedures regarding academic affairs and changes in the management and mandate of the bodies within the University and its units. The new Law deprived the UKIM units of their legal entity status. The structure of UKIM's bodies remained the same and some of the competencies were transferred to specific bodies. The main act of the University is the Statute which must be endorsed by the founder of the University – the Parliament of the Republic of Macedonia. The University units now have Rulebooks instead of Statutes and these Rulebooks arrange their internal operation and organization in accordance with the Statute of UKIM. The University Senate, at the 2nd session held on 16 September 2008 and at the extraordinary session held on 13 November 2008 adopted the Statute of the University which was endorsed by the Parliament of the Republic of Macedonia on 17 December 2008.

Memorandums with the Ministry of Health of the Republic of Macedonia, agreements with the university clinics as well as appendices to these agreements were signed in 2009. This resolved the status of the teachers and associates at the Medical Faculty and the Faculty of Dentistry – a double employment arrangement was introduced with the university clinics and with the University.

In the terms of structure and composition of UKIM, according to the Law on Higher Education and the Statute of UKIM, the University includes faculties and institutes as regular units. Starting from the 1st of January 2009 the Faculty of Orthodox Theology "St. Clement of Ohrid" has the status of joining member of UKIM and since 8 February 2011 the National and University Library "St. Clement of Ohrid" also acquired the status of joining member of UKIM.

The Parliament of the Republic of Macedonia adopted laws for establishment of two additional units under the umbrella of UKIM: Faculty of Design and Technologies of Furniture and Interior (Official Gazette of the Republic of Macedonia No.57 from 26 April 2010), as legal successor of the Institute for Lumber Industry as part of the Faculty of Forestry; and the Faculty of Information Sciences and Computer Engineering (Official Gazette of the Republic of Macedonia No.171 from 30.12.2010). As a result of the new developments, the Ss. Cyril and Methodius University is currently comprised of 23 faculties, 5 research institutes and 12 joining member institutions (**Appendix 1**).

In the past ten years, the changes at the University were basically about the following aspects: development of modern regulations which arrange in a new manner the relations between the University and the faculties/ scientific institutes in all areas of their work; building of strategy for development of the higher education and of the scientific activity; introduction of new study rules according to which the student is in the focus of the educational process; development of concept for modern manner of studying in accordance with the Bologna process principles by introducing the credit transfer system; implementation of system for assessment and quality assurance in the higher education through self-evaluation and evaluation of the activity and the academic staff at the University; intensifying of the activities for involvement in international programs and projects aiming for internationalization of the higher education.

The changes in the organization and integration set the basis for practical revitalization and functioning of UKIM as an integrated University with a single objective – capacity building of the Ss. Cyril and Methodius University in Skopje by nurturing the tradition of being the oldest and the largest university in the

country and contribution towards promotion of the development of quality assurance in higher education, research and innovation, in building the Single European Higher Education Area.

2.2. Legal status and autonomy

- The Ss. Cyril and Methodius University in Skopje is public higher educational institution and the first state university in the Republic of Macedonia. Its activity is arranged with the Law on Higher Education and the Statute of the University. With the Law on Higher Education in 2008 on Higher Education, the University harmonized its entire activity with the legal provisions for integrated autonomous university. The main act of the University is the Statute which must be endorsed by the founder of the University – the Parliament of the Republic of Macedonia. The University units have Rulebooks, compliant to the Statute of the University, that arrange their internal relations and operations.
- The highest management and professional body of UKIM is the Senate, chaired by the Rector, followed by the Rector's Board and the Rector who is a management body. The decision making process at the University also involves the vice-rectors, deans/ directors of the units, the scientific and teaching councils/ scientific councils of the units, commissions and other bodies of the structure of UKIM and the units (**Appendix 2 and Appendix 3**).
- In accordance with the Law on Higher Education and in the frames of exercising of its autonomy, the UKIM Senate approves the "joining member" status and the establishment of new faculties.
- UKIM is integrated university with centralized budget for better management and provision of quality. The units have their respective sub-accounts which provide them with greater autonomy but also responsibility and accountability in their management and operations.

UKIM is autonomous institution and decides independently about its mission, strategy, structure, activities, management with the research and teaching potentials and relations with other national and international universities and institutions. All activities of the University are in accordance with the current legal framework and acts of the Board for Accreditation and Evaluation of the Higher Education in the Republic of Macedonia which prescribe that the university is responsible for quality of the teaching process and research; and for ensuring of academic freedom and transparency in making decisions regarding the resource management.

In the frames of the responsibility, accountability and transparency in the work, every year the Rector submits Annual Report to the University Senate which is published on the UKIM's website and submitted to the founder – the Parliament of the Republic of Macedonia.

2.3 Geographic location of the University

- The Ss. Cyril and Methodius University is located in Skopje, the largest city in the Republic of Macedonia, and capitol of the country. Skopje is located in the North-Western part of Macedonia, on both sides of the Vardar River at 255 meters above the sea level. The urban area of the city sprawls through the entire Skopje Valley - around 30 kilometers. It includes 10 municipalities and 700.000 inhabitants (more than one third of the people in Macedonia). The City of Skopje is a place where two international corridors meet – E-65 and E-75. Other regional cities near Skopje are Belgrade (439 km), Sofia (232 km), Tirana (312 km) and Thessaloniki (235 km).

There are five state and eighteen private accredited universities in Macedonia, UKIM being the oldest higher educational institution. It owns 2.630.692 m² of land and 221.014 m² of premises for delivery of the teaching process, doing research and student practices, accommodation facilities, Congress Center in Ohrid, libraries, premises for publishing activity, health institution, rooms for the administration and the Rector's Cabinet. The Complex consisted of social science faculties and the UKIM Rector's Office is located in the center of the city on an area of 96.699 m². The Faculty of Medical Sciences (170.069 m²) and the Faculty of Physical Education (15.052 m²) are located in the center of the city. The central area of the city also includes the Faculty of Architecture (5.802 m²), Faculty of Civil Engineering (8.678 m²) and the Faculty of Music (3.589 m²). In the immediate vicinity, in the Eastern part of the city, we have the Faculty of Natural Sciences and Mathematics (54.305 m²), Faculty of Veterinary Medicine (22.456 m²) and the complex consisted of the following faculties: Faculty of Forestry, Faculty of Design and Technologies of Furniture and Interior (50.355 m²). The Faculty of Electrical Engineering and Information Technologies, the Mechanical Faculty, the Technology and Metallurgy Faculty, the Faculty of Information Sciences and Computer Engineering and the Faculty of Dramatic Arts – are all located in a single campus spreading on 85.222 m², at a distance of 2

kilometers from the center of the city. Located very close to them are the Faculty of Pedagogy (15.557 m²) and one part of the Faculty of Arts (4.168 m²) which is also using premises in the Old Skopje Bazaar. Most of the institutes are located in the city center or 1-2 kilometers away from the center, except for the Institute of Agriculture which is located in several dispersed facilities in Skopje (6.725 m²) but owns land outside the city (1.839.323 m²). The Institute of Cattle Breeding also owns land outside Skopje (71.552 m²) (**Appendix 4**).

- Around 10,000 students in all three cycles are enrolled at UKIM every year which makes it the biggest University in the Republic of Macedonia in terms of number of students. Students from Skopje, from other cities in the country but also international students enroll at UKIM.

2.4. Current situation on the national and regional labor market

The modest demand for workforce is the essential characteristic of the labor market throughout the entire transitional period in the Republic of Macedonia, caused by a number of factors, including low economic growth, inefficient privatization process and structural changes. Regardless of the positive development tendencies since 2006, the moderate average growth of the GDP (4,8%) in the last few years and the slow gross-growth of investments resulted in significant improvements on the labor market. The structure of the economic activities in Macedonia changed significantly during the transitional period. The participation of the industry dropped significantly – from around 45% in 1990 to around 18% in 2011. Around 50% in the GDP structure goes to service activities which mainly include trade, transport and telecommunications. The agriculture is still around 11% of the GDP. In the recent years there is significant increase of the economic activities – the economy growth is increased by 3,9% in the area of construction and industry while the banking sector and the crediting remain stable, with low interest rates which are mainly used by the private sector.

The labor market in the Republic of Macedonia in 2013 featured relatively low level of economic activity of the working-age population (57.3%), low employment rate (40.9%) and high unemployment rate (28.6%). The issue of unemployment is dominant among young people up to 27 years of age.

In addition to the microeconomic policies that aim to achieve faster growth and greater job creation, greater emphasis is put on the active labor market policies that aim to reduce the mismatch between the skills and the bottlenecks on the labor market. In this regard, the national priorities established in the National Strategy for Development of Education 2005-2015 in the area of human resources development are: promotion of education for all, increased social partnership, activities for support of NGOs and volunteer associations in the area of lifelong learning, linkage between the formal and informal education, increased opportunities for educational mobility and increased professional and social competencies of the adults.

The analysis of the labor market needs shows there is largest demand for high-professional profiles in the area of IT technologies (17,5%), followed by economists (9,9%) (with emphasis on financial and business administration profiles). These professions, together with the professions related to mechanical, electro-technical and civil engineering areas, are twice more in demand by the private companies compared to the demand by state owned companies.

The experience of the employment agencies shows there is greatest demand for technical profiles from the ICT sector (electrical engineers, developers, system administrators), including mechanical engineers. In the area of social sciences there is greatest demand for financial managers and for development and sale managers. The market has no capacity to absorb all higher education profiles, especially the social science profiles which are greater in numbers but less in demand. The policies for reduction of the enrollment quotas at the several state faculties of social sciences cannot realistically have effect on the harmonization of the offer and demand because the rest of the students enroll at private faculties that feature mainly social studies. The analysis of the Employment Service Agency of the Republic of Macedonia on the knowledge and skills needed among the new employees, shows that the employers highlight as most important the following: foreign languages, computer skills, communication skills, organization and team work.

In 2010 changes and amendments were made in the Law on Higher Education aiming to approximate the education with the labor market. Structured in this manner, the study programs should result in development of the enthusiasm and motivation among the students, the capacity for analysis and generalization and the ability for management of social changes. As the highest ranked university in the country, UKIM implements a series of other activities for modernization of the teaching process: introduction of entrepreneurship, studying of foreign languages, communication skills, external evaluation, teacher training, promotion of lifelong learning, etc.

In this context and in order to reduce the gap between the skills of the graduates and the labor market needs, UKIM, in its strategic goals, foresees changes in the current study programs. Above all, 10% of the compulsory subjects and 10% of the optional subject in every study year must be delivered through clinical

teaching (meaning: by prominent experts with practical experience in the relevant area). Furthermore, the student must attend practical teaching in each study year which cannot be shorter than 30 days – this is one of the conditions for enrolment in the next study year. For this purpose, the University establishes contacts with institutions offering practical work. In 2008 UKIM signed cooperation agreement with the Chamber of Commerce which includes delivery of clinical teaching as well as student practice activities in the frames of the Chamber and its members.

In accordance with the analyses related to skills demanded by the labor market, UKIM introduced new study programs in the area of electrical engineering and IT technologies, mechanical engineering, informatics and technology. This is expected to improve the situation in the future regarding offer of staff, taking into account the fact the student enrollment quote are expanded, the number of enrolled students is significantly higher and new faculties that offer these profiles are opened.

In 2013 almost all units of UKIM established career centers which are direct link between the students and the companies. They exist to facilitate the transition from education to labor market. In addition, these centers also train the students for better self-presentation on the market through trainings on how to apply for job and write CV, preparation for interviews, motivation letter, etc.

2.5. Structure, students, academic and administrative staff

The structure of the University includes 23 faculties, 5 scientific institutes and 12 joining member institutions (**Appendix 1**). Each faculty and scientific institute has organizational units structured on the basis of specific fields and areas on competency (**Appendix 3**).

First, second and third cycles of studies are delivered at UKIM. The teaching activity for 192 first cycle study programs is delivered at the faculties. From these programs, 21 are three-year, 166 four-year and 5 are with duration of five or six years (integrated studies). The delivery of the first cycle studies is done in two ways: full-time studies (at all 192 programs) and part-time studies (at 118 study programs). In the frames of the Project 35/45 of the Government of the Republic of Macedonia, which provides enrollment for individuals older than 35 years of age, teaching process for this category of students was organized on some first cycle study programs. The teaching process at UKIM is delivered in Macedonian language. Some study programs at the Faculty of Philology, Faculty of Pedagogy and the Faculty of Dramatic Arts are delivered also in Albanian and Turkish languages. At some study programs the teaching process can be also delivered in English language and two first-cycle study programs delivered in English language have special accreditation (**Appendix 5: Tables 5.1, 5.2, 5.3, 5.4 and Appendix 7: Table 7.3**).

The study programs of the second-cycle studies (a total of 242 programs) are organized at the faculties (192) and the scientific institutes (50). Some study programs provide the possibility the teaching process to be delivered also in English language, depending on the number of candidates interested, and three second-cycle study programs delivered in English language have special accreditation (**Appendix 6: Tables 6.1, 6.2 and Appendix 7: Table 7.3**).

The third-cycle studies are organized in the UKIM School of Doctoral studies and include 40 study programs from all 6 scientific-research areas in accordance with the International Frascati Classification. The study programs are delivered in Macedonian language and there is also a possibility for delivery in English language, depending on the number of candidates interested. At two doctoral study programs the teaching is delivered in English only (**Appendix 7: Tables 7.1,7.2,7.3**).

The total number of students at UKIM is around 60.000 and the total number of active students in the academic year 2012/2013 is 32.372, 29.444 of which are enrolled in first cycle studies, 2.415 in the second cycle and 513 in the third cycle of studies (**Appendix 8: Table 8.1.4**).

The academic teaching staff at the University in the academic 2012/2013 included 1.859 academic teaching staff and associate staff, 1.748 of which work at the faculties and 111 at the five institutes that are permanent members of UKIM (**Appendix 9**). The University staff also includes 840 people in the administrative-technical services, 697 of which work at the faculties and 143 at the institutes (**Appendix 10**). The current academic staff includes 711 full professors, 262 associate professors, 347 assistant professors and 539 associates (**Appendix 9**). All teachers are selected through competition, in accordance with the criteria prescribed by the Law on Higher Education and the Rulebook on Conferring in Academic Titles of UKIM. The teaching staff covers all the study programs of the UKIM's units and the total student/professor ratio in the academic 2012/2013 is 27/1 (**Appendix 8: Table 8.2.1**)

In addition to the teaching process, the scientific research is also very relevant for the University. These are carried out at all units of UKIM. The research activity is done by the teaching staff and the students. Through the implementation of fundamental researches, the teaching staff is actively involved in obtaining scientific-research projects and research grants. UKIM also has international exchange program in accordance

with the European and international practices and skills in the academic area. This provides the students with opportunity to be involved in European programs such as Erasmus or the European Initiative for Exchange of Youth (**Appendix 11**). Similar to this, the University is involved in international projects such as **FP7, TEMPUS, FP6, SEE-ERA, NET PLUS, NATO, IPA, UNESCO, CIP IEE 2013**, etc. (**Appendix 12**). The University also has programs for cooperation with the universities in the region and Europe (**Appendix 13**).

The University infrastructure intended for the teaching process and the scientific-research activity includes 68 amphitheatres, 281 lecture rooms, 197 sports halls, 201 teaching laboratories, 271 scientific-research laboratories, 70 computer equipped classrooms, 28 libraries, etc. (**Appendix 14**).

2.6. National system for provision and control of quality

In the higher education system in the Republic of Macedonia, the external evaluation, the self-evaluation and the system for assessment of quality of the academic staff at the universities are obligatory in accordance with the Law on Higher Education and the Statutes of the Universities.

The external evaluation and the summary assessment of quality of the academic staff at the universities and facilities are carried out by the Board for Accreditation and Evaluation of the Higher Education (OAE) every five years. The implementation of the external evaluation is regulated with the Rulebook on the Organization, Operation, Decision Making and Methodology for Accreditation and Evaluation, Standards for Accreditation and Evaluation (Official Gazette of the Republic of Macedonia No.151/2012). The provisions in the Rulebook regulating the operation of the Board for Accreditation are harmonized with the recommendation of the European Association for Quality Assurance in Higher Education (ENQA). The Board for Accreditation evaluates the universities in four specific areas: organizational management and delivery, teaching and learning, scientific and research activity and other creative activities and social justification, in accordance with the criteria established by the Rulebook of the Board for Accreditation, as well as in accordance with the Guideline on the Manner of Provision and Assessment of the Quality at the Higher Educational Institutions and the Academic Staff in the Republic of Macedonia (Official Gazette of the Republic of Macedonia No. 64/2000, No.67/2013).

The Board for Accreditation publishes on its website the reports and results of the external evaluation carried out at the universities and at least once per year publishes also a summary report of the external evaluations carried out in order to show the general situation of the higher education system in the Republic of Macedonia and provide recommendations for its improvement.

The process of self-evaluation of the University and its units is compulsory every three years. The self-evaluation reports of the units are developed in accordance with the Guideline for Self-evaluation and Provision and Assessment of Quality of the UKIM's units, adopted by the University Senate on 30 April 2013. The self-evaluation is carried out by commission established by the teaching-scientific and the scientific councils of the units. The self-evaluation of UKIM is carried out by a commission established by the University Senate.

3. Norms and values, mission and objectives

3.1. Mission and strategic objectives of the Ss. Cyril and Methodius University in Skopje

The vision of the University is to be modern, dynamic, educational and research institution on the basis of the performances, competitiveness and quality, active and integrated locally, regionally and internationally, as well as in the frames of the Single European Higher Education Area.

Mission of the Ss. Cyril and Methodius University is to be:

- Autonomous, scientific and higher educational university that provides teaching, scholar and applicative activities in technical, natural sciences and mathematics, bio-technical, artistic, medical and social sciences;
- University devoted to the cherishing as well as the international affirmation of the traditional features and values of the Macedonian people such as: the Macedonian language, the history, the literature and culture), including cherishing of the cultural values of other ethnic communities in the Republic of Macedonia;
- university open for all students on the basis of equality and their results regardless of their ideological, political, cultural, religious and social background;
- University that concords its academic offer to the needs of its social surrounding, and has continuously dynamic relation towards it;

- University that creates stimulative environment for its employees providing them with opportunity to develop their abilities in order to accomplish its mission;
- University that develops long-life and continuous education;
- University determined to achieve the European norms and standards in all spheres of its activities.

The specific objectives for implementation of the vision and mission are established in the UKIM's Strategic Plan (**Appendix 26**), as follows:

- **Organization of the University** by maintaining relevant level of functional integration on all levels through mutual agreement and understanding among the members, including setting of joint approaches and priorities for future development
- **Identification of mechanisms for overcoming of the lack of junior associate staff** through direct involvement of scholars in scientific, research and applicative projects, including involvement of doctoral candidates in the teaching process
- **Modernization of the teaching process and implementation of the Bologna Declaration** by introducing changes in the current study programs, introduction of new programs and new approaches and manners of delivery of the teaching process as required by the Bologna system, by putting the student and his/ her needs in the focus of the educational process, which means change as an orientation for transformation of the educational process – from a teaching process into process of permanent learning and introduction of new technology for acquisition of knowledge
- **Improvement of quality of the studying and teaching process, and of the student standard**
- **Increased mobility of the students and teachers**
- **Quality management and improvement** by introducing standards and directives in accordance with the common framework for quality assurance in the higher education, certification and accreditation of the units and laboratories, introduction of corrective measures system in the monitoring and management of quality, continuous assessment of the internal control systems through the activities of the Internal Audit Unit of UKIM
- **Advancement of the scientific-research, scientific and innovative work** through incentives and identification of funding sources for its development
- **Development of flexible model of postgraduate and doctoral studies** which will be efficient and will respond to the quick social changes and demands of the economy and the labor market
- **Increased dynamic of the international cooperation**
- **Provision of stable and effective functioning of the University computer network** and IT improvement of the University's work
- **Identification of solutions and sustainable measures for financing of the University's activity, including investments and development**

3.2. Administration and management

From legal and financial aspect, UKIM is integrated University. The system of management is integrated and transparent and guarantees consistency in the decision making processes. The main act of the University is the Statute which must be endorsed by the founder of the University – the Parliament of the Republic of Macedonia. The University units have Rulebooks, compliant to the Statute of the University, that arrange their internal relations and operations.

The strategic objectives are designed in accordance with the mission and vision of the University. The Strategy guidelines are discussed and adopted by the University Senate and the decisions for implementation of measures for reaching of the objectives correspond to the participatory management principles, which ensures transparency in the decision making process.

The organizational scheme of the University is designed in a manner that provides functional framework for implementation of the strategic objectives. The highest management and professional body making decisions at University level is the Senate, chaired by the Rector. The composition of the Senate includes representatives from all units and joining members of UKIM, including student representatives. The Rector's Board of UKIM includes the Rector, the vice-Rectors, the deans of the faculties i.e. directors of the scientific institutes and the President of the Student's Parliament. The Rector's Board is managed by the Rector. The

Rector's Board develops and proposes acts and documents related to issues about which the Senate and the Rector make decisions. UKIM's management body is the Rector who implements the decisions and conclusions adopted by the University Senate and the Rector's Board. The mandate of the University Senate, the Rector's Board and the Rector are established by the Law on Higher Education and the Statute of UKIM (**Appendix 2**).

The highest professional body of the units that makes decisions at the unit level is the teaching and research council (NNS) at the faculties i.e. the scientific council (NS) at the institutes. The teaching and research councils i.e. the scientific councils are consisted of full time, associate and assistant professors, including student representatives. The mandate of these councils is established by Law, the Statute of UKIM and the Rulebook of the unit. The management structure of each unit includes Dean/ Director and Faculty Management Board/ Institute Board. The Faculty Management Board/ Institute Board further include Dean/ Director, vice-deans, heads of the internal organizational sub-units of the unit (departments, institutes, sub-units, centers, sectors, etc.) and the President of the Student Parliament at the faculty. The mandate of the Dean/ Director is established by the Statute of UKIM and the Rulebook of the unit, and the mandate of the Faculty Management Board/ Institute Board with the Rulebook of the unit (**Appendix 3**). Every internal organizational unit of the Faculty/ Institute has manager responsible for each of the activities and is a line of management of the University, from top to bottom.

The financing of the public higher educational institutions is carried out from the Budget of the Republic of Macedonia. As state University, UKIM receives these funds which are used for salaries of the teaching and administrative and technical staff, as well as for some part of the running/ utility costs. From financial point of view UKIM has the status of legal entity with its own account which includes the funds received from the Budget of the Republic Macedonia as well as accounts used for funds received from other sources and special income. The UKIM units have their respective accounts which are used for the funds received from the Budget of the Republic Macedonia as well as accounts used for funds received from other sources. For this purpose, UKIM has developed financial operation model which includes special accounts at the faculties and institutes for the Budget income, for own income funds as well as accounts for the special income which include the University projects. UKIM and the units manage the funds from the Budget of the Republic Macedonia in accordance with the criteria and purposes established by the relevant state authorities. Regarding the income from other sources, UKIM i.e. the units that generated the income are free to use them as they intend, in accordance with the Statute and the Rulebooks of the units. The special income is kept at special accounts of UKIM. Upon authorization by the Rector, the units that generated the income are free to use it as they intend.

Five percent of the funds generated by the units are paid into the joint UKIM budget and their use is determined in the Annual Program on Financing regarding the type and volume of the integrative functions. This Program is adopted by the University Senate. Most of these funds are invested in publishing activity, student activities, support for scholar events, scholarships for students, students mobility, some investments pertaining to the general interest of all members, etc. The transparency in spending of these funds is ensured by the annual financial reports adopted by the Senate and made available to every member of the academic community.

In the absence of measures and criteria for financing of the higher education activity, and starting from the integrated structure of UKIM, the University Senate adopted a Rulebook on Unique Bases for Determination of the Salaries and Allowances for the University Employees.

The human resources policy aims to optimize the professional skills of the staff and use non-discriminatory criteria in the selection and advancement of the academic staff. The teaching and research positions are manned only through competition, in accordance with the Law on Higher Education and the Rulebook on Criteria and Procedure for Selection of Teaching-Scientific, Scientific, Scientific-Professional and Associate Titles at UKIM. This Rulebook introduces, in a transparent manner, the requirements and scoring for each candidate before the candidate is conferred in the specific title (references for involvement in the scientific-educational, scientific-research, professional-artistic i.e. professional applicative activity). For the purpose of increased transparency and better quality, the conferral in the highest title – full professor, is granted by the Senate of the University.

The human resources policy of UKIM is a complex issue per se, conditioned by a number of factors that are closely related to the manner of financing. The implementation of the human resource policy includes annual review of the situation and planning of the needs for hiring staff for the teaching-educational process and for the scientific-research work in the frames of UKIM. The University continuously raises in front the relevant authorities, requesting resolution, the issue of staffing in accordance with the new changes in the higher education. On the basis of the identified needs and proposals raised by the units of UKIM, requests

for new employment are sent to the relevant authorities. These new employments cover the retirement of the staff as well as the expansion and development of the activity.

The introduction of the School for Doctoral Studies established a new quality in the scientific advancement of staff, as potential for creating young teaching staff. One part of the human resource policy of UKIM, in accordance with the Law on Higher Education, also includes engagement of persons enrolled at doctoral studies to work as associates at the University. Furthermore, the human resource policy of UKIM includes establishment of preconditions and mechanisms for scientific advancement (both in the country and abroad) of qualified young staff, intensifying of the teaching and research performance through mobility of the teaching staff, motivation and attraction of staff by improving the conditions for scientific and research work.

- **The quality evaluation** of the higher education is not only legal obligation but it is also very relevant for UKIM since it is one of the key mechanisms for quality assurance of UKIM's activities. The adoption of the Guideline on Self-evaluation of UKIM's units established the criteria for self-evaluation which will be carried out by commissions established by the teaching and research councils/ scientific councils. The self-evaluation includes analysis of the study programs, quality of the teaching process, the scientific and research work, the applicative activity and the financing. The analyses and recommendations of the special commissions and educational bodies in the units are taken into account in the self-evaluation process. These commissions and bodies have a task to monitor the mobility of the students per subjects, the quality of the teaching process, training of the staff for introduction of new approaches and methods in the delivery of the teaching process, changes and amendments to the subjects and study programs, the manner of knowledge verification, etc. Included in the self-evaluation reports are also student surveys in which they assess both the quality of the teaching process and the academic staff. The student survey reports are taken into consideration when teachers and associates are conferred into academic titles. The self-evaluation reports of the Units are submitted to the Evaluation Commission of UKIM which does the self-evaluation of the University. On the basis of these reports the Senate proposes corrective measures.
- One of the mechanisms for monitoring of the teaching quality is the introduction of the common electronic system (iKnow) which introduced control over the teaching process – starting from the enrollment of students, electronic student support services and student file, to attendance registration for the students and teachers.

3.3. Academic profile

UKIM is an integrated University that unites under its umbrella all scientific areas: natural and mathematical sciences, technical, technological and medical and health sciences, biotechnology, social and humanist sciences and arts. In its complexity and comprehensiveness, the University aims towards consolidation and establishment of appropriate balance between the quality of the teaching process and learning, the scientific and research activity and the relations with the society. Presently, the University delivers first, second and third cycle study programs. The doctoral studies model of UKIM was established following the best practices from developed European universities and is first of its kind not only in Macedonia but on the Balkans as well. In the same time, the concept of delivery of the doctoral studies at the School of Doctoral Studies is one of the main characteristics of UKIM as integrated university.

The teaching activity and the creation of quality academic staff are considered top priorities for the University. All study programs in all the three cycles of studies are adapted to the Bologna process, harmonized with the Law on Higher Education of the Republic of Macedonia and are continuously accredited and re-accredited by the Board for Accreditation and Evaluation. The introduction of new first, second and third cycle study programs is a continuous process, it is reflection of the modernization of the teaching and scientific process, listening to the interests of students, the economy and the mainstreams of the education globally. The increase in the mobility and attraction of foreign students is incentivized through accreditation of first and second cycle study programs in English language.

With the implementation of the Bologna process, the University is focused on development and efficiency of the teaching and learning process, continuous improvement and modernization of the study programs, in accordance with the national and international standards. The UKIM units are guided by the principle imposed by Bologna: **the student is in the center of the education**, combining teaching, learning and continuous assessment in the frames of the specifics and competencies. In addition, the teaching modernization process has started with the introduction of IT technologies, e-learning and new electronic tools for knowledge transfer.

The University is actively involved in all projects aiming to increase the level of education in the country (such as, for example, dispersed studies, the 35/45 project).

The scientific and research work of UKIM is based on the principles established in the National Program on Scientific and Research Activity of the Republic of Macedonia. Considering the different nature of the scientific areas, UKIM does not have a single program for scientific and research activity – the scientific research policy is initiated by the units themselves. The University supports the research activities, starting from developments in the area of education to initiatives of the academic staff and scholars.

In order to advance the scientific, research and, above all, applicative activity of the University units, the Government of the Republic of Macedonia donated funds for equipping of laboratories which makes the link between the economy and the private sector more direct, and the benefits are enjoyed by all – the institution, the scholars and the economy. In the frames of this project UKIM equipped 62 laboratories (**Appendix 15**).

As a state University, UKIM actively follows the needs of the economy, private sector and society as a whole. The study programs which are given priority are reflection of the needs and requirements of the local, regional and international social and economic environment. The IT technologies, the technical and technological as well as the natural and mathematical profiles are the main focus of interest for the economy, equally important being also the medicine, economy and other scientific and artistic areas. The enrollment policy and the setting of academic priorities are established by the University but subject to review and endorsement by the Government of the Republic of Macedonia.

In the efforts to improve the professional training and students perspectives, and in accordance with the most recent changes in the laws, the faculties, in cooperation with the economy, are obliged to provide practical teaching and professional training for their students with duration of one month within one study year. This improves the relations between theory and practice and makes it possible for the private sector and economy to recognize and incentivize their future human resources in the early phase of learning. In addition to practical teaching, the units also deliver clinical teaching by involving external partners and practice professionals in the relevant areas.

Being the oldest educational institution in the Republic of Macedonia, UKIM actively contributes to all areas of social and cultural life in the country. This can be seen in the fact that, from the total of 45 permanent members of the Macedonian Academy of Science and Arts (MANU), 30 are teachers and scientists coming from UKIM – 14 full time and 16 retired professors (**Appendix 16**).

3.4. Additional academic activities

As one of the most important stakeholder in the overall social and economic processes in the country, UKIM aims to achieve a status of equal partner with the business community by participating in initiatives and networks aiming to improve the overall economic and social environment in the country. The sharing of experiences with institutions and companies in the industry, visits to these companies as well as the invitations for active involvement of prominent experts in the educational and scientific activities of UKIM is another strategic determination of UKIM with regards to the development of the institutional cooperation and interaction with the scientific, economic and social environment, both on regional and international level. The University is also actively involved in the shaping of common space for cooperation between the small and medium sized enterprises in order to create business partnerships and technology transfers, as well as joint scientific researches.

In relation to its international partners, UKIM has established cooperation and joint educational programs, double and joint degrees, including research projects in the European programs and bilateral partners, exchange, mobility, organization of scientific and other academic events.

UKIM initiates and actively participates in public debates related to policy making in the economic, social, political and scientific areas on local, national and regional levels. The University also provides significant contribution towards enriching of the cultural life in the country by financing and implementing a number of cultural and artistic events.

3.5. Funding

In accordance with the Law on Higher Education and being a public higher education institution, UKIM is financed from the Budget of the Republic of Macedonia. In addition, UKIM also generates own income which mainly comes from scholarships and other educational services, scientific and professional, applicative and consultancy services for beneficiaries from the public and private sector in the country, as well as from international projects and European funds.

The Law on Higher Education foresees adoption of measures and criteria for financing of the studies at the public higher education institutions but these are yet to become alive. Therefore, most of the UKIM income (which is money from the state Budget) is mainly allocated for salaries of the staff and for some of the utility costs. Since the funding is not based on the real study costs, the University is placed in a very difficult situation – there is necessity to define the sources and amount of funds required for its funding and development of its activity, project the need for graduate staff, plan the number of teaching and scholar staff, facilities and equipment and other needs necessary for its development and implementation of the long-term strategies.

3.6. Status of UKIM at local, national, regional and international level

As state institution, UKIM continuously cooperates with the institutions of the system, the cultural and business community as well as with the regional and international governmental agencies and non-governmental organizations. The academic staff is involved, with their professional potential, in a number of institutional bodies and committees thus contributing towards the social and cultural life in the Republic of Macedonia. The diversity of scientific and artistic areas at the University, the expertise of the academic staff and the good number of laboratories provide for significant social and inter-institutional cooperation from the aspect of consultancy service, quality control of food, drugs, products, health services, etc.

The international cooperation is one of the top priorities for the University and the Department for International Cooperation actively follows the international education projects and obtains relevant information about the possibilities for financing and about the potential project partners. The link between the international academic communities, the necessity to introduce and develop scientific, technological and educational innovations, require focusing of the University's international cooperation on greater involvement in the programs implemented by EU, the regional SEE initiative and on cooperation with the neighboring, Mediterranean and international universities, especially with the partners from the United States.

The University pays special attention to the internationalization of the teaching and science, the entry and exit mobility of the students, building of the administrative capacities related to the internationalization of UKIM and its activities in various regional, European and international networks. These are UKIM's strategic objectives for increase of the exit mobility:

- At least 20% of the students that will graduate till 2020 to undergo at least one study semester at some university abroad;
- Increase of the number of Erasmus-bilateral agreements within Europe as well as the number of bilateral agreements with universities beyond Europe;
- Improved mobility promotions;
- Development and application of the mobility provisions from the Rulebook at all units for the purpose of standardization of the recognition of the semester studies and the results achieved at the universities abroad;
- Introduction of a number of optional subject as well as introduction of the so called “mobility windows”;
- Securing of additional funds for scholarships intended to improve the exist mobility of the students;
- Increased entry mobility for foreign students by introducing teaching in foreign languages.

4. Management and activities

4.1. Administration and management

- In the terms of organizational and management structure, UKIM is integrated University, based on the principles of institutional autonomy. The decision making is structured on three levels: university, faculty/ institute and internal organizational units.
- In accordance with the Law on Higher Education and UKIM's Statute, the bodies of the University are: the University Senate, the Rector's Office and the Rector's Board. The University Senate is management and expert body of UKIM consisted of two representatives from each faculty, one representative from scientific institutions, three representatives from the joining members and ten student representatives. The members of the University Senate are elected through direct and secret voting by the teaching and research councils of the faculties, the scientific institution councils, the bodies of UKIM's Students Parliament and the management bodies of the joining members. Involved

in the work of the Senate are the Rector, the vice-rectors and the Secretary General of UKIM, without right to make decisions.

- The Senate ensures the academic freedom and autonomy of the University who decides about the most important issues pertaining to academic activities and policies, financial issues, adoption of Statute of UKIM and Rulebooks of the units, criteria for selection and promotion of academic staff, enrollment policy, development of services for the society.
- Management body of UKIM is the Rector of the University. The Rector represents and advocates UKIM in the country and abroad. In the frames of management with UKIM, the Rector has the following more relevant competencies: executes the decisions and conclusions of the University Senate and the Rector's Board; harmonizes the higher educational, artistic, scientific and research and applicative activity with other UKIM activities; submits proposals, decisions, other general acts and conclusions to the Senate; manages the international cooperation of UKIM and initiates cooperation with other universities in the country and abroad; initiates cooperation between the members and the joining members within UKIM and mediates between them when necessary; manages the assets of UKIM and takes care of its maintenance; confirms the election of faculty deans; provides orders when it comes to financial and economic operation of UKIM. The Rector is obliged to submit Annual Report to UKIM, once every year, to the Senate and the founder. The Rector is responsible for legality and statutory work of UKIM as well as for the work of the institutions within UKIM. For the purpose of implementation of some its rights and obligations, the Rector can vest with authorization specific vice-rectors. UKIM has four vice-rectors: for teaching, for science, for international cooperation and for funding, investments and development.
- The Rector's Board of UKIM is consisted of the Rector, vice-rectors, faculty deans, directors of the scientific institutions and the President of UKIM's Students Parliament. The work of the Rector's Board also involves the Secretary General of UKIM. The Rector's Board is managed by the Rector. Some of the more relevant competencies of the Rector's Board are: provision of opinions about the study programs; decision making about introduction of new units, merger, division or augmentation of specific units.
- Other bodies of the Rector's Board are the commissions for teaching, science, finances, investments and development, cooperation with the universities from the country and abroad, publishing activity, normative activity, IT technology, student standard and for culture and sports. These commissions include academic staff and student representatives.

The internal organization and operation of UKIM's unit is unified and regulated with Rulebooks on the internal relations and operation of the faculties and institutes. The highest professional body of the faculties that makes decisions at the unit level is the teaching and research council (NNS) i.e. the scientific council (NS) at the institutes. The teaching and research councils i.e. the scientific councils are consisted of full time, associate and assistant professors, including student representatives. The mandate of these councils is established by Law, the Statute of UKIM and the Rulebook of the unit. More relevant competencies of the unit councils are: adoption of program proposals for development of the teaching and educational, scientific and research and applicative activity; proposals for study programs, conferral into academic titles, proposal for number of students to be enrolled; proposing candidates for deans, election of vice-deans, secretary, self-evaluation commission members, etc.

The diverse structure of each unit includes Dean/ Director and Faculty Management Board/ Institute Board (DU/IU). The Faculty Management Board/ Institute Boards further include Dean/ Director, vice-deans, heads of the internal organizational sub-units of the unit (departments, institutes, sub-units, centers, sectors, etc.). The mandate of the Dean/ Director is established the UKIM's Statute and the Rulebook of the unit while the mandate of the Faculty Management Board/ Institute Board is established by the Rulebook of the unit. The Faculty Management Board/ Institute Board takes care of the implementation of the activity and development of the unit, adopts acts and monitors their implementation, adopts financial plan and annual account, submits proposal to the University for expansion of the activity, etc. (**Appendix 3.**)

Every internal organizational unit of the Faculty/ Institute has manager responsible for each of the activities and is a line of management of the University, from top to bottom. All issues related to the teaching, applicative and scientific and research activity, decisions for which are made by the Faculty Management Board/ Institute Boards and the teaching and research councils i.e. the scientific councils, are proposed by the departments, institutes and other organizational units of the faculty/ institute.

- The professional, analytical and administrative works are carried out by a central professional and administrative service – the Rector's Office of UKIM. The Secretary General of UKIM manages the work of the central professional service. The professional service of UKIM does planning and analytical work, personal work, accounting, registration, filing and statistics, develops and processes

materials related to UKIM's activity, from legal and professional aspects, implements activities related to the activity of the computer networks, publishing activity and the IT and library system of UKIM, and also performs other administrative and technical work (**Appendix 17**).

- The professional and administrative services of the units are respectively organized, depending on the number of staff and the workload of the unit. Their work is managed by the secretaries of the units. The work of the professional services of the units is coordinated with the work of the Central professional and administrative service of UKIM (**Appendix 18**).
- **Decisions regarding academic activities and policies.** The decisions regarding academic activities and policies for the teaching (subject and study programs, contemporary teaching methods, publishing activity, etc.) and the scientific and research activity are proposed and discussed at the level of their respective organizational units. The proposals are afterwards considered by the standing commissions and bodies of the units and approved by the teaching and research councils i.e. the scientific councils. In accordance with the established procedure and the legal framework and normative acts of UKIM, after the proposed academic activities or policies have received support by the commissions and bodies of UKIM, as well as positive opinion by the Rector's Board of UKIM, the University Senate adopts decision to give endorsement. The Senate can either accept or reject these proposals.

Decisions regarding financial issues. The University and the units manage the funds received from the Budget of the Republic of Macedonia in accordance with the criteria and intended purpose established by the relevant Ministries. Regarding the income from other sources, the University i.e. the units that generated the income are free to use it as they intend, in accordance with the Statute and the Rulebooks of the units. The special income is kept at special accounts of UKIM. Upon authorization by the Rector, the units that generated the income are free to use it as they intend, in accordance with the Statute.

For the purpose of implementation of the integrated and other activities, the units allocate 5% of the income they generated which is then paid into the University's account. The Rulebook prescribes the manner, procedure, intended use and decision making process regarding the income acquired by the University for covering of costs related to the integrative functions. The volume and scope of the integrative functions, in accordance with the Rulebook, is financed in accordance with a Program adopted by the Senate and implemented by the Rector's Board by making decision on the basis of initially submitted requests from the units.

Decisions regarding conferral and promotion of the academic and administrative staff. The conditions, criteria and procedure for conferral/ election are regulated by a special act adopted by UKIM. The conferral of the academic staff in all titles is carried out through a public competition, implementation of procedure that includes report by a Review Commission, published in UKIM's bulletin and decision for conferral/ election of the teaching and research council i.e. scientific council of the faculty/ scientific institutes. The units are autonomous when it comes to conferral and promotion of the academic staff. It is just the promotion into full professor that must be approved by the University Senate, on the basis of proposal submitted by the unit the candidate is coming from.

- The administrative staff is hired through competition using methodology in accordance with the current legislation and systematization acts of UKIM and the units.
- **Decisions regarding student enrollment.** The students are enrolled through public competition, on the basis of the conditions and criteria in the competition approved by the Rector's Board of UKIM (http://www.ukim.edu.mk/mk_content.php?meni=98&glavno=41). According to the competition criteria for enrollment are the success attained in the secondary education and the success from the passed state, international or school mature. For study programs that feature certain specifics (Faculty of Architecture, Faculty of Dramatic Arts, Faculty of Arts and Faculty of Music, selection of the candidate is also done by checking the knowledge and skills of the candidates.
- Every year the units submit proposals on the number of students in the study programs and on the quotas for financing, which are approved by the Rector's Board. Upon proposal by the University, the Government of the Republic of Macedonia determines the total enrollment number and the distribution of enrollments financed by the state, the co-financing student quota and the amount of that co-financing. This structure limits the autonomy of the University to decide about the amount of financing for the study programs since they differ depending on the study costs.
- The foreign students have the same rights and obligations as the local students. They enroll beyond the regular quotas and the number and amount of co-financing are determined by the Rector's Board, following proposal by the units. The Government of the Republic of Macedonia sets the quota for students coming from minority ethnic groups in the Republic of Macedonia. This additional quota

includes proper representation of all ethnic minorities up to the percentage at which that minority exists in the total population in the Republic of Macedonia.

- **Decisions regarding development of services for the community.** The diverse composition of the University makes it possible to develop applicative activity in all areas: arts, health, economy, technology, agriculture, etc. The decisions regarding services for the community are adopted at unit level at UKIM. They develop and implement programs for services for the local and regional community on the basis of needs analysis. The health services provided by the medical science units are also regulated by the Law on Health Protection. Being a legal entity, the University holds licenses issued by the Ministry of Economy for supervision, audit, design and construction of facilities for the activities carried out by the units dealing with technical and technological sciences.
- The Ministry of Education and Science is also involved in the development of the applicative and scientific and research activity at the universities in the Republic of Macedonia. It provided the UKIM units with latest equipment for 62 modern laboratories that provide services to the economy and the community, including implementation of scientific and research projects and practical teaching for the students. The laboratories provide services related to IT, technology, nature and mathematics, medicine, biotechnology, humanist and social areas. (**Appendix 15**).
- **Involvement of students and outside parties in the institutional management.** In accordance with the legal framework, the Statute and acts of the units, the students are involved in all forms of management through the Student Parliaments at the faculties and at UKIM. They are part of the management bodies of the units (Faculty Management Board/ Institute Board; and teaching and research councils i.e. scientific councils), of the bodies of UKIM (the University Senate, the Rector's Board) and of all UKIM commissions. Furthermore, they are included in the commissions for self-evaluation and evaluation of the units and UKIM. However, according to the practice so far, the students insufficiently exercise their rights to be involved in the discussions and decision making process when it comes to key and strategic affairs of UKIM. In the frames of the commitment to strengthen the place and role of the student, the institution of "students Ombudsman" was introduced at UKIM and Rulebook on the Work and Election of the Students Ombudsman was adopted. This Ombudsman is proposed by UKIM's Student Parliament (he/ she is a student) and elected by the University Senate.
- When it comes to involvement of outside parties in the management of UKIM, including representatives of the society/ community, although the UKIM regulations do not foresee their involvement in the institutional management, there is permanent dialogue with the economic, social and cultural public in order to provide teaching and research offer which is flexible and adapted to the labor market needs.
- The most recent changes of the Law on Higher Education and UKIM's Statute include a body – University Council which is supposed to have 11 members. The Senate appoints 6 members from the academic community, from various teaching and research areas, and one student. Other three members are appointed by the Parliament of the Republic of Macedonia, one member is appointed by the Chamber of Commerce of the Republic of Macedonia and one member is appointed by the City of Skopje. This body has advisory role and has no authority to make decisions. Nevertheless, once established, this body is expected to contribute towards better informing about the needs of the society. In the frames of its mandate, the University Council proposes measures to the University bodies for consistent implementation of the activity and tasks of the University.
- **Human resources policy.** The total number of academic staff at UKIM in the academic 2012/2013 includes 1.859 teachers and associates. Seventy one percent are teachers and 29% are associates. It is obvious the number of associates at University level is much smaller compared to the teaching staff (teacher/ associate ratio is $1320/539=2.44$). In a situation of restrictive policy for employment of young scholars, almost all units faced the issue of ageing of their teaching and research staff during the analyzed period. The age structure at the faculties in various scientific areas is enclosed (**Appendix 9: Table 9.2.**). General conclusion is that, from short-term and middle-term perspective, the high percentage of professors age over 55 years could have negative effect on the quality of teaching and on the scientific and research work of the University, due to their retirement and the restrictive policy of employment of new staff. The age structure of the associates is also unfavorable. The analysis of the gender structure shows quite equal gender representation (**Appendix 9: Table 9.1.**).

The human resource policy of UKIM is important prerequisite for successful delivery of the teaching and educational process and the scientific and research activity. It is a complex issue conditioned by a number of factors that are closely related to the manner of financing, number of students, effectiveness of the studying

and the overall develop of the institutions. Since the funding of the higher education in the Republic of Macedonia is done by the government, the Ministry of Education and Science and the Ministry of Finances have to endorse new employments at UKIM. Therefore, the main obstacle for engagement of new staff, and this has been the face in years, is the policy for reduction of the public consumption and stopping of new hiring imposed by the government. The retirement of University staff makes the human resources situation at UKIM even worse. This situation directly impacts the autonomy of the University and its strategic development.

The high scientific level of the teaching staff of UKIM is also confirmed with the fact that University representatives are members of the Macedonian Academy of Science and Arts (**Appendix 16**) and with the fact that the teaching staff of UKIM has received a number of national and international recognitions (**Appendix 22: Table 22.4**).

- The University supports and develops the programs for mobility of the academic staff at the European universities for the purpose of their further training and introduction of new teaching and evaluation methods, including harmonization of the study programs with the European programs.
- **Involvement in the inter-institutional cooperation.** UKIM is relevant factor in the society and is involved in the economic and social development on local and regional level. The University actively contributes towards the development of other state universities in Macedonia by providing some of its teaching staff in the delivery of their study programs. Furthermore, the University cooperates with a number of socially-relevant stakeholders such as the Chamber of Commerce, pharmaceutical companies, the Bureau for Development of Education, Food and Veterinary Agency, Health Insurance Fund, energy companies, banks, etc. Relevant example is the Institute of Earthquake Engineering and Engineering Seismology which is ranked among top five Institutes globally thanks to the quality of its consultancy and other services. Another example are the medical faculties and institutes which, in addition to academic and scientific-research activity, are also directly involved in the public health in the Republic of Macedonia.

Considering the role, relation and interdependency of the international academic communities, as well as the necessity for creation and development of scientific, technological and educational innovations, the international cooperation of the University is focused on increased participation in the EU programs: European University Association (EUA), International University Association (IUA), Network of Universities from the Capitals of Europe (UNICA), Francophone University Association – (AUF) etc., on the regional SEE initiative as well as on the cooperation with the neighboring, Mediterranean and international universities, especially with the partners from the United States. The University is actively involved in the work and program activities of the most relevant regional academic networks and programs, sharing the commitments for quality in the higher education and research in a competitive international environment (**Appendix 19**).

The bilateral cooperation is taking place in the frames of the 73 cooperation agreements which include joint degrees, mobility of the academic staff and students, joint scientific and research projects, double degrees, workshops and seminars (**Appendix 20**).

4.2. Academic profile

4.2.1. Teaching process

Depending on the needs in the Republic of Macedonia, the University develops various programs for initial and continuous education. The continuous education is intended not only for the University employees but also for the staff working in other institutions and private sector. The purpose is to catch up and learn about the latest international achievements, discoveries and trends in science.

UKIM covers three cycles of studies, undergraduate, master and doctoral studies. All study programs are designed in accordance with the Bologna recommendations, the European Credit Transfer System (ECTS) and the local legislation, and they are accredited by the Board for Accreditation and Evaluation of the Higher Education in the Republic of Macedonia (**Appendix 5, 6 and 7**). In all study programs, except the regulated professions, the number of compulsory subjects is not more than 60% of the total number of subjects, 30% are optional subjects the students select from the list of optional subjects at the faculty and 10% are optional subjects the students selection from the common university list of optional subjects.

In order to internationalize the study programs, the teaching process at UKIM for two first-cycle study programs and ten second-cycle study programs is also delivered in English language – one of them being double diploma program and one interdisciplinary joint program. The teaching process for two third-cycle

study programs is delivered solely in English language and all other study programs have the possibility to be also delivered in English language depending on the interest of the candidates (**Appendix 7: Table 7.3.**).

The University has opened dispersed studies in a number of cities in Macedonia in order to bring the University study programs closer to everyone and reduce the costs for the students coming from other regions in the country.

The University provides full support to all faculties on stimulating education which puts the student in the center. The faculties are partners in the process of teaching for acquisition of competencies, introducing modern didactical tools (ICT technology, simulators and educational software, team working groups, projects, learning on the basis of problem solving, Internet presentations). Important aspect in the development of the University is the teaching staff with affirmed competences and international experience that aims to share their knowledge using modern teaching and evaluation methods. The study programs are continuously updated by the teachers, practical training for the students is included in order to improve the quality and the students are timely informed about changes. The entire content of all study programs and accreditation resolutions are publicly available and they can be accessed on the websites of UKIM's units. The content of the teaching programs, the quality of the teaching process and exercises, the objectiveness in the assessment and the attitude of teachers towards the student are all evaluated at the end of each semester by the students attending undergraduate, master and doctoral studies. The results from the survey questionnaire and evaluation reports are published.

Eight units of the University use electronic system for support of the learning (e-learning) which makes available to students all the materials necessary to learn the programs and subjects (references, lectures, presentations, homework and exercises, including tools for visualization of particular concepts). These are also used for communication between the students and teachers. The information in these databases is continuously updated and improved and the University is actively working on introduction of electronic system for support of the learning (e-learning) in all units. In order to further support the electronic learning, UKIM adopted a decision which makes available to the students, in electronic format, all new editions published by the University.

The continuous educations are designed and delivered according to the needs and they are in correlation with the latest scientific developments. Most of the students are stimulated through involvement in scientific and research projects, workshops, conferences and seminars, where they can present their scientific achievements.

Every study program is affirmed with the number of graduates able to find job on the labor market. In this regard, UKIM has limited information about the career of the graduates. The real economic situation in the Republic of Macedonia has impact on the jobs offer. Therefore, if some of the study programs is not attractive for the potential students, it is put on hold and no students are enrolled in those programs.

UKIM is the first ranking university in the country which gives him advantage in attraction of students from all parts of the country and abroad. Foreign students enroll and study at the University, or study for some time period in the frames of international exchange projects. The increase of the number of study programs delivered in foreign languages is important goal for UKIM in order to attract more foreign students, especially for the second-cycle studies. The teaching staff and students have opportunity for international cooperation through Erasmus and Cepus mobility programs as well as through a large number of bilateral and international scientific and research projects. During the reporting period, a total of 253 first-cycle students exercised mobility abroad, including 140 students from the second cycle and 57 students from the third cycle of studies at UKIM, with tendency this number to continuously increase. This provides the students with additional knowledge and skills and also makes it easier for them to get involved on the labor market. At UKIM, 47 first-cycle foreign students exercised mobility, including 14 students from second cycle and 5 students from the third cycle of studies. In addition the 'diploma supplement' document was developed which includes the ECTS credits thus eliminating the obstacles for mobility of the students. Furthermore, during this period, 85 academic staff from UKIM participated in the programs for mobility of teaching and training at EU universities and a total of 52 teachers from EU universities visited out University through the mobility programs (**Appendix 11.**).

Important strategic objective of UKIM is improvement of quality of the second-cycle study programs. The number of study programs corresponds to the number of first-cycle study programs and the labor market needs. In this context, one of the overall objectives of UKIM is to stimulate the first-cycle graduates to continue their education into second cycle of studies. During the three reporting years there is a trend of increase in the number of study programs – from 209 in the academic 2010/2011 to 242 in the academic 2012/13 (**Appendix 6: Tables 6.1 and 6.2**). However, the number of enrolled students declined from 2.938 students in the academic 2010/2011 to 1.840 students in the academic 2012/2013 (**Appendix 8: Table 8.1.2.**). The reasons for the negative trend of enrollment in the second-cycle studies are three-fold:

congruence of the candidates who graduated in accordance with ECTS and before ECTS was introduced in the academic 2010/2011, the economic conditions due to the fact the second-cycle is implemented through self-financing and the large number of four-year study program that completely profile the students. Furthermore, integrated teaching in first and second cycle studies (300-360 credits) is delivered at some faculties and the students have the right for direct entry into third cycle of studies.

The University plans to restructure the second-cycle study programs and come up with less but stronger study programs that are relevant for the labor market and especially compatible with similar programs delivered at the developed European universities. In this regard, the units are more focused on proposing joint study programs in order to improve the quality and use to the maximum all the resources and potentials of the University.

The introduction of the School of Doctoral Studies at UKIM in the academic 2011/2012 evidently increased the interest of the candidates for continuation of the third-cycle studies. A total of 513 students were enrolled in the academic 2011/2012 and 2012/2013 at 40 study programs in various scientific areas (**Appendix 7: Tables 7.1. and 7.2. and Appendix 8: Tables 8.1.3.**)

The University laboratories are equipped with latest technology that meets the requirements for delivery of the teaching programs and the research carried out in these laboratories is compatible with research carried out at European universities (**Appendix 14**).

The University continuously allocates funds for enrichment of the library fund, both in the terms of books and scientific magazines and electronic access to scientific data (**Appendix 21**).

We need to also mention the fact that the UKIM units are facing some financial problems in the organization of practical activities and in finding proper facilities and staff for implementation of the practical teaching. This is mainly due to the scope and various scientific areas within UKIM on one side, and the large number of students from the other side.

4.2.2. Scientific and research work

The scientific and research work is taking place at all units of UKIM and in all scientific and research areas. The units have complete freedom to select the scientific methods. The UKIM units include 271 scientific and research laboratories (**Appendix 14**). The scientific research is carried out by the teachers and scholars, the research staff, the doctoral candidates and the students.

According to the ranking of universities in the Republic of Macedonia, carried out by the Shanghai University and upon request by the Ministry of Education and Science, UKIM has been ranked on top of this list twice in a row. One of the reasons for this is the superiority of UKIM in the area of research in comparison to other universities in the Republic of Macedonia. In the area of research, there are number of criteria considered as measures of success of one university. Some of them are provided in **Appendix 22**. This Appendix shows the number of papers published in international journals in the last three years is continuously increasing. This is mainly due to the legal requirements according to which, for the purpose of conferral into titles, one of the requirements for mentoring of the doctoral studies is the number and time frame of papers published in international journals. Another motive for these candidates is the Program of the Government of the Republic of Macedonia for provision of support to scholars who will publish paper in international journal with impact factor. The participation of UKIM scholars at local and international conferences/ seminars/ workshops was also increasing during the evaluation period. For the purpose of better recognizability of the scientific papers on international level, some of UKIM units stimulate the publishing of papers in international journals with impact factor and the participation on international conferences (**Appendix 22: Graph 22.3**). Some of them also publish professional and scientific journals in their respective area (**Appendix 22: Table 22.1**). Here we emphasize the *Macedonian journal of chemistry and chemical engineering* published by the Institute for Chemistry at the Faculty of Natural Sciences and Mathematics with impact factor of 0,821. (<http://www.mjcce.org.mk>).

During the 2010-2013 period, a significant number of teachers and scholars from the University were involved in, or managed, scientific and research projects (TEMPUS, FP6, FP7, ERASMUS, SEE-ERA.NET PLUS, NATO, IPA, CIP-IEE – 2013, in bilateral projects). This is an indicator of the level and compatibility of the scientific and research work of UKIM with the work carried out at the universities in the high developed countries (**Appendix 12**). The number of projects coordinated by UKIM jumped from 47 in the academic 2010/2011 to 70 in the academic 2012/2013. In addition to these, the academic staff from the units participates in other projects and scientific and research studies which are not managed by UKIM.

In the last few years there has been almost no national scientific and research projects funded by the Government of the Republic of Macedonia. UKIM initiated a program in 2011 for funding of one scientific and research project in each unit, including the initiative by some units to fund projects from their own funds

but this can only partially bridge the gap in the scientific and research activity. This means that UKIM needs to increase its cooperation with the economy and the international cooperation in the area of research i.e. increase the number of international projects.

UKIM organizes local and international conferences/ workshops/ seminars which also involve scholars from abroad, and their number during the reporting period has been constant (**Appendix 22: Graph 22.2**). This also goes for the number of our scholars invited to lectures abroad and the number of foreign lecturers at UKIM (**Appendix 22: Graph 22.5**). The awards from scientific events also speak about the results from the scientific and research activity (**Appendix 22: Graph 22.4**).

The University units provide direct electronic access to scientific databases in specific areas of research. One of the priority objectives of UKIM is to increase the access to relevant scientific databases as important prerequisite for further development of the scientific activity (**Appendix 21: Table 21.2**).

The students are introduced in the scientific and research work through involvement in scientific projects but their total representation is small compared to the number of students. Special emphasis is put on the third cycle of studies where the scientific and research work is compulsory part of the overall doctoral studies process.

4.3. Additional academic activities

UKIM participates in initiatives and networks that aim to improve the overall social and economic environment in the country as equal partner of the business community. One of those initiatives is the European Information and Innovation Centre in Macedonia (EIICM) which is coordinated by UKIM and involves the Foundation for Management and Industrial Research, the Agency for Support of Entrepreneurship of the Republic of Macedonia and the Chamber of Commerce of Macedonia. The Center operates in the frames of the international Enterprise Europe Network (EEN). The European Commission established this network in order to create common space for cooperation between the small and medium sized enterprises in Europe, where they will be able to establish partnerships in the business and technologies transfer but also to be involved in joint scientific research. These perspectives are also available to the small and medium sized enterprises in the Republic of Macedonia through EIICM.

The Business Start-up Center is also operating at the University. It is a result of the project funded by the Austrian Development Agency. The offices of this Center are located in the new building of the Faculty of mechanical Engineer, which is implementing the project. The Center organizes trainings in entrepreneurship and small business management, especially development of business plans for all innovative, technological and scientific-based profit-oriented business ideas and assists the employment of the recent graduates. The purpose of the Center is to increase the entrepreneurship awareness among the students and graduates and assist the improvement of the overall economic situation in the country. However, not all students are equally interested and motivated for entrepreneurship. The Business Start-up Center at UKIM estimates that the entrepreneurship as a skill is more present among the students in the following areas: electrical engineering, mechanical engineering, IT, economy and agriculture. Regardless of that, the general attitude is that 95% of the students are prone to join existing companies and only 5% are ready to start their own business.

In June 2013, in cooperation with UNDP, a Regional Center for Social Innovations was established at FINKI. The main purpose of this Center is development and promotion of ICT products and services which should improve the life of every citizen of Macedonia. In the frames of this Center several solutions were already developed that are free for all (for example: mobile application for information on contingency events and disasters, map of the crime in Macedonia, mobile application for support of blood donations) or for specific population groups (for example: system for notification of the apple producers in Resen).

For the purpose of development of the lifelong professional training concept, there are professional associations at some units of the University that have strategy towards lifelong training and professional development in various areas, depending on the needs of the employees and in accordance with their professional skills, in order to improve their professional competencies. At some units there are also centers for continuous education of the staff that deliver professional training program. However, the funds allocated by UKIM for these purposes are insufficient.

Most of the UKIM staff is involved in the activities of professional associations and supervisory bodies, including commissions in various Ministries: Council of the National Bank of the Republic of Macedonia, Committee for Entrepreneurship and Innovations of the Republic of Macedonia, Institute for Standardization of the Republic of Macedonia, Institute for Accreditation of the Republic of Macedonia, The Chamber of Experts, etc.

The International Seminar on Macedonian Language, Literature and Culture takes place every year, organized by UKIM. The main purpose of this Seminar is affirmation and increase of the interest in the Macedonian language, literature and culture. The most important events that show the entirety of this seminar in the terms of educational, scientific and Macedonistic activity is the summer school and the international scientific conference which is attended by participants from over 20 countries worldwide.

Following the signing of Agreement for Academic, Scientific and Cultural Cooperation with the Southwestern University in Chengdu, China in 2013, the “Confucius” Institute was established at UKIM with aim to improve the mutual understanding of the two nations by learning Chinese language, history, literature, arts and other aspects of the Chinese culture and science, including advancement of the Macedonian-Chinese economic partnership and joint research activities.

The University provides significant contribution in the cultural life of the country by funding and implementing a series of cultural and artistic events. The concerts of the symphonic orchestra and chorus of the Faculty of Music (**Appendix 23: Table 23.1**), the exhibitions of the Faculty of Arts (**Appendix 23: Table 23.2**) and the performances of the Faculty of Dramatic Arts (**Appendix 23: Table 23.3**) are some of the activities funded and supported by the University. Here we need to emphasize the traditional international theater event SKOMRAHI, organized by the Faculty of Dramatic Arts at UKIM, which is taking place every year with participation by students and professors from the European theater academies.

The academic cultural-artistic association “Mirche Acev” is successfully operating in the frames of the University since the University was established. It features cultural and artistic activities of the academic chorus and the folklore dancing group.

4.4. Support to students

UKIM provides a number of opportunities for support of the students and continuously increases those opportunities in accordance with its strategic objectives.

In order to modernize the teaching process, UKIM supported the introduction of e-learning platform at all units thanks to which the students have online access to the e-learning platform and to relevant database, including access to administrative information which facilitates the administrative affairs and the communication with the teachers.

All faculties publish student orientation guide which provides the freshmen with complete information about the manner, requirements and rules of studying, as well as information about the infrastructure available at the faculty i.e. the University.

The student tutoring/ mentoring system exists at most of the faculties. The mentors assist the freshmen to easily adapt to the new manner of studying which is different from the secondary education. The main support is in the area of selection of the optional subjects. This manner of mentoring significantly facilitates the mobility of the students through the studies.

In order to stimulate the quality and improve the student standard, every year the University awards 240 student scholarships for enrollment in first year. Every faculty awards one-year scholarships to the top 10 candidates ranked at the final ranking list of candidates enrolled as full time students in the state quota. Furthermore, the University and the units mediate for obtaining of scholarships from the local community and the business communities. Most of the companies fund students during the studies with possibility to hire them after they graduate. This system is mostly developed at the technical profiles.

The student exchange is excellent opportunity for the students to obtain additional experiences in the areas of education and research. It is continuously promoted and coordinated by the Department for International Cooperation and the Erasmus coordinators at the faculties in charge of all Erasmus-related exchange, including assistance to students when applying, the residence in the country they go for exchange and monitoring after their return to UKIM. The exchange is mainly taking place in the frames of the ERASMUS LLL and ERASMUS MUNDUS ACTION 2 programs. In the frames of ERASMUS LLL the mobility takes place in the frames of the Erasmus bilateral agreements signed between UKIM and universities from EU member states. The list of universities with whom UKIM exercises academic mobility is provided in **Appendix 11**. The Ss. Cyril and Methodius University is partner in programs for mobility of students and teachers which are part of the Erasmus Mundus Program Action 2 – partnerships of the European Commission. These are the following programs: BASILEUS, JOINEU-EE, ERAWEB, EUROWEB. The number of students that exercised mobility is provided in **Appendix 11**. In addition, the students also have mobility opportunity through the bilateral cooperation of the units with European facilities and through project cooperation. The students exchange is also organized through student organizations and networks such as ELSA, AIESEK, AEGEE, IAESTE, BEST, EESTEC.

In 2013 the University adopted a Rulebook on Establishment and Operation of Career Centers at the Units. The purpose of these centers is to identify the right way of career management but in the same time enable easier recognition of the student and economic entities on the labor market and efficient linkage between them. Although relatively new, some of the centers already carried out some activities, mainly regarding provision of practice for students, employment competitions, career fairs and workshops with participation by employers, visits to companies in Macedonia and active assistance for employment of the students.

The University provides financial and other support in organization of student congresses, summer schools, seminars and workshops intended to enrich the experience and knowledge in the area of study.

The University also hosts the University radio "Student FM 92.9". It broadcasts program informing the students but also initiates topics relevant for the student community. The University Radio also provides practical teaching for the students in journalism.

In accordance with the determination of the University for development of recreation and top sports among the students, the University and the facilities, in the frames of their financial capabilities, assist the sporting activities of the students (competitions, leagues and tournaments). The University owns sporting facility located in the campus of the Faculty of Mechanical Engineering in Skopje as well as open-air sports area in the frames of the Faculty of Pedagogy. Since the University has more than 30.000 students per year, the lack of relevant recreational facilities is serious weakness which deserves greater attention in the future.

Although the support to the students is largely appropriate to their needs, the following issues are identified as necessary to improve: put greater number of courses at the e-learning platform, continuous updating of the materials intended for the students, online library including all papers and references developed by UKIM professors, development of the Career Centers at all units and support to the mentorship system.

4.5. Funding

The funding of the entire operations of UKIM comes from the funds obtained from the Ministry of Education and Science, the funds obtained from the co-financing paid by the students and the funds generated by the UKIM's units as own income.

The total budget of UKIM in 2013 was 49.550.393 EUR. From these funds, 18.181.410 EUR (36,69%) were received from the Budget of the Republic of Macedonia, 13.358.913 (26,96%) came from students co-financing, 6.318.407 (12,75%) from the cooperation of the University with the economy, 2.427.136 (4,90%) from research projects and 9.264.528 (18,70%) from other sources. Detailed overview of UKIM's budget for the 2010-2013 period is provided in **Appendix 24: Table 24.1 and Graph 24.1**. The breakdown of the income, per units, is provided in **Appendix 24: Graph 24.2**.

The funding of the University from the Budget of the Republic of Macedonia is mainly defined by the number of staff at the faculties: this includes teaching and administrative staff. Most of these funds (87%) are for salaries which are determined in accordance with the coefficient values awarded in accordance with the qualification structure of the faculty employees. Twelve percent of the funds received from the Budget of the Republic of Macedonia is intended for utility costs (heating) and very small part for capital investments, investments and tangible costs. This is a serious problem in the operation of most of the faculties.

The break-down of funds coming from own income (cooperation with the economy, co-financing of the students and other income) is provided in **Appendix 24: Graph 24.3**. Some major costs are salaries and salary allowances (23,95%), contractual services for delivery of teaching due to the increased workload at undergraduate and postgraduate studies (24,03%), contractual services in the cooperation with the economy (9,11%), communal services, heating and transport, and for tangible costs (9,11%). From the basic funds, 7,58% are spent on research, purchase of equipment and capital investments. The funds obtained from international projects (5% of the total UKIM income) are spent in accordance with the approved financial plan of the project.

The University has at its disposal 5% of the total funds received by the units from the co-financing of students and from the services provided by the units. The Senate adopts Annual Program for allocation of these funds and they are intended for implementation of the integrative functions of the University i.e. mainly for capital investments, publishing activity, membership in international organizations, scientific and research projects, information system, cultural and sporting activities, etc.

The main problem in the area of funding is the manner of allocation of the funds received from the Budget of the Republic of Macedonia i.e. unrealistic coverage of the costs the University has per student with the current manner of identification of the co-financing amount. In other words, the costs per student in various study programs, which are prerequisite for quality studying, are not taken into consideration when

determining the amount of co-financing. This has negative effect on the faculties that require laboratories, modern equipment and other materials for teaching and exercise. Although the Law on Higher Education foresees the existence of Council for Development and Financing of the Higher Education, this Council has not been established and is not functioning. All of this creates difficulties in the harmonization of UKIM needs and funding of its main activity.

5. Activities related to quality control

In order to increase the success and competitiveness on the local and international market, UKIM takes continuous care of the quality of the university activities and successful functioning of its unit, by implementing quality control mechanisms. The quality control is carried out in all activities at the university: teaching and educational, scientific and research activity, management, financing, academic and other activities and priorities, including the subject and study programs and the learning and teaching methods.

When it comes to management, the Rector's Office of UKIM uses certified quality management system in accordance with the international standard ISO 9001:2008. The Faculty of Electrical Engineering and Information Technologies applies the same quality management system in all of its areas: management, teaching, scientific and research work and applicative activity. Most of the faculties currently undergo procedure of certification of their operation in accordance with the ISO quality standards which contributes towards increase in quality of their work.

The self-evaluation, the external evaluation carried out by the Board for Accreditation and Evaluation of the Higher Education and the external evaluation of UKIM carried out by the European University Association (EUA) are the key mechanisms for assessment and provision of quality in the work of the University.

Self-evaluation is carried out at UKIM, including external evaluation carried out by the Board for Accreditation and Evaluation of the Higher Education. The units of UKIM carry out self-evaluation in intervals not greater than three years and submit the self-evaluation report to the University and the Ministry of Education and Science. The reports are published on the websites of the units, the UKIM and the Ministry. In 2002 guidelines were adopted for implementation of the self-evaluation on the level of the entire University in order to ensure unified actions in the implementation of this process among all UKIM members. On 30 April 2013 the University Senate adopted new Guideline for Self-evaluation and Provision and Assessment of Quality at the Units of UKIM which arranges the evaluation methods and the procedure for implementation of the self-evaluation at the faculties and scientific institutes of UKIM (http://www.ukim.edu.mk/mk_content.php?meni=155&glavno=1). The adoption of this Guideline was one of the objectives set during the latest self-evaluation and is result of the implementation of the legal requirements. In that same year the Ministry of Education and Science adopted a Guideline on the Criteria on the Manner of Provision and Assessment of Quality at the Higher Educational Institutions and the Academic Staff in the Republic of Macedonia (Official Gazette of the Republic of Macedonia No. 67/2013). The UKIM units are obliged to carry out the self-evaluation in accordance with these guidelines.

Being the first step of the evaluation process, the self-evaluation has three main objectives:

- Provide short and quality overview of the units, especially of the teaching and education process, taking into account the influence the scientific and research work has on the teaching and education process;
- To analyze the strengths and weaknesses of the units (using SWOT analysis) and
- Provide the basis that will be used for self-evaluation carried out by UKIM and for external evaluation carried out by the Board for Accreditation and Evaluation of the Higher Education.

For successful implementation of the self-evaluation of the units, the teaching and research council i.e. the scientific council of each units casts secret vote in order to elect evaluation commission which includes seven members: five teachers and two students; as well as sub-commissions for evaluation which evaluate the study programs and include five members: three professors and two students. In addition to the self-evaluation implementation, the commission members develop self-evaluation reports, make official contacts with the bodies of the unit and the University. The self-evaluation report needs to be objective and show the real situation of the unit, the positive and negative sides and provide recommendations for improvement in the form of corrective measures and recommendations for overcoming of the gaps and improvement of the quality. The self-evaluation analyzes a number of segments of the unit: the mission and objectives, the strategy for implementation of the mission, the study and subject programs, the teaching and associate staff, the scientific and educational activity, the students, the facilities and other material conditions, the logistics, external cooperation, funding, ascertainments about the weaknesses of the unit and proposals for changes towards quality improvement. The self-evaluation also gives answer about the vision, role and tasks of the

unit in the future, as well as about the activities the unit implements in order to improve. From a long-term perspective, depending on the labor market and society needs, every unit has its mission and strategy for its implementation. The analysis of the strategy for implementation of the mission is done by considering several aspects pertaining to monitoring of the changes implemented at other higher education and scientific institutions in the country and abroad, change of the unit in order to adapt, accommodation of the unit to the new requirements and reaction to requirements from the environment, including mechanisms for quality improvement which are implemented by the management.

Using the self-evaluation of the study and subject programs, the units improve and harmonize their study and subject programs with those of European and international universities. The self-evaluation makes thorough and detailed analysis of the study program description, the teachers and associates delivering it, the scientific and educational activity, students, facilities and material resources, logistics, external cooperation, scientific and research activity, the objectives, the number of semesters and teaching hours, the reference literature, etc. In addition to the self-evaluation and modernization of the current study programs, the University continuously introduces new study programs depending on the labor market needs.

Analog to the Commission for Evaluation of each of the units, there is also a Commission for Evaluation of the University which does self-evaluation of the University and includes nine members: six professors and three students elected by the Senate through secret voting. The Commission implements the self-evaluation in accordance with the Guideline for Self-evaluation and Provision and Assessment of Quality and is in permanent communication with the Commission for Evaluation of the units. In accordance with the most recent changes of the UKIM Statute in 2013, the Commission is obliged to submit Evaluation Report to the Senate at least once per year. The report evaluates the situation and provides specific proposals for overcoming of the negative sides in the implementation of the University activities.

The quality of the academic staff is one of the priorities of the University and the evaluation of the staff is done using criteria for conferral into teaching and scientific titles, quality assessment and measures for its improvement, as follows:

- The profile and qualifications of the academic staff in accordance with the Law on Higher Education;
- Implementation of the single university criteria adopted for conferral into teaching and scientific titles;
- The number of subjects for each cycle of studies and the number of teachers and associates delivering the teaching process;
- The access to the unit for improvement of the knowledge of the academic staff;
- The relation between the education and research; and
- Assessment by the students.

It is necessary to mention that the assessment by the students carried out through regular student surveys is taken into account when conferring the teacher into teaching and scientific title. Using the survey questionnaire the students evaluate separate each teacher/ associate in accordance with several criteria: readiness for the lectures/ exercises, teaching delivery quality, regular attendance at the lectures and rational utilization of the hours, availability for communication and consultations, objectiveness in the assessment, attitude towards the students, references available for easier learning, harmonization between the lectures and exercises, obligations the students need to meet in order to pass the exam including the difficulty of the exam. The survey questionnaire is filled in at the end of each semester (**Appendix 25**).

These are the measures for improvement of quality of the academic staff at the University:

- Creation of preconditions and building of mechanism for organized employment of young professional staff that have affinities for research;
- Creating conditions for professional and scientific improvement in the country and abroad;
- Stimulation of the participation by visiting professors in the delivery of the teaching process;
- Participation of our eminent staff in the universities in Europe and the world;
- Implementation of measures for improvement of the material status and incentives for the academic staff; and
- Provision of the necessary financial and material conditions for quality scientific and research work

After the end of the self-evaluation for the most recent period (2010/2011 to 2012/2013) and the development of the Self-evaluation Report, the University will be subjected to external evaluation by the Board for Accreditation and Evaluation of the Higher Education in the Republic of Macedonia. The Board implements the external evaluation in accordance with the standards foreseen in the recommendations of the European Association for Quality Assurance in Higher Education (ENQA) and in accordance with the Rulebook on Organization, Operation, Manner of Decision Making, Methodology for Accreditation and Evaluation, Standards for Accreditation and Evaluation (Official Gazette of the Republic of Macedonia

No.151/2012) and the assessment is based on criteria for operation of the higher educational and scientific and research institutions, in four specific areas. The external evaluation is done by the Board for Accreditation and Evaluation once every five years and for that purpose the Board establishes a Commission for External Evaluation consisted of five members: three from internationally recognized universities (at least one of them from abroad), one member from the Board for Accreditation and Evaluation and one students representative (Official Gazette of the Republic of Macedonia No.67/2013).

In order to approximate to the standards and criteria for European and international universities, external evaluation is carried out at UKIM in accordance with the EUA principles and criteria.

The self-evaluation and external evaluation processes resulted in efficient monitoring and implementation of the plans and strategic objectives, including their regular updating and adoption of new ones. The continuous collection of information makes it possible to continuously monitor the entire operations and improve the segments that have weaknesses and weaker results. The regular control and self-evaluation also contribute towards greater activity by the academic staff and permanent dedication to the subject and study programs, their improvement and modernization in accordance with the latest scientific developments and introduction of new ones.

- One of the mechanisms for monitoring of the teaching quality is the introduction of the common electronic system (iKnow) which introduced control over the teaching process – starting from the enrollment of students, electronic student support services and student file, to attendance registration for the students and teachers.
- In general, the implementation of the quality management system provides for implementation of the strategic objectives of UKIM. The overall activity of UKIM is documented in a number of rulebooks, regulations and procedures which enables continuous analysis of the results, timely identification of gaps and weaknesses as well as opportunity for faster implementation of remedy measures.

6. Management strategy and capacity for changes:

In a situation of economic, political, social and other social changes, UKIM is placed in a situation to continuously adapt itself and identify methods and resources necessary for development. Confirmation of this is the situation of the University on national and international level.

The strategy of UKIM's management is based on realistic SWOT analysis which takes into consideration the strengths, weaknesses, opportunities and threats, supports the development of strategic and operational plans in order to overcome the weaknesses and further develop the University.

6.1. SWOT

a) Strengths

- Largest University in the Republic of Macedonia, recognizable in local and international frames and with confirmed values as university ranked on the top of the list in the country;
- The educational offer of UKIM includes a variety of programs in the area of natural and mathematical sciences, biotechnology, technical and technology sciences, medicine, social and humanistic sciences and arts which are continuously modernized, reaccredited and adapted to the labor market needs;
- The only University in the country which provides first, second and third-cycle study programs in all scientific areas which makes it possible to produce high-quality professional staff;
- Highly professional teaching staff that has the knowledge, experience and ability to share knowledge and skills, focused towards the needs of the student, and to combine the scientific and research activities with the educational activities;
- Modern computer center operating in the frames of UKIM through which the UKIM units are connected to the Internet;
- UKIM has modern infrastructure, didactical and research laboratories with scientific-research equipment and software, thus providing optimal conditions for teaching, learning and research;
- High results in the scientific and research work expressed through the large number of papers published and projects implemented;
- The UKIM units have developed applicative activity and are involved in process of wider public and state interest;
- The management structure is integrated top to bottom, with high level of autonomy of the units and inclusion of the academic staff and students in the lecturing and decision making, as well as in the policy making of the University;
- The only university in the region where the students Ombudsman is selected from the students.

b) Weaknesses

- The need for continuous training of the teaching staff in order to apply for international projects;
- Resolving of the funding issue intended for training and organization of activities that aim to advance the academic staff and the administration;
- Ongoing control and monitoring of the corrective measures derived from the self-evaluation of the units, in order to improve the quality;
- Follow-up of the graduated students after their studies and their inclusion on the labor market – this needs to be implemented at all units;
- Small number of study programs in English language;
- Large groups of students in the delivery of teaching at some units;
- Difficulties in the implementation of practical teaching for specific subjects and of the compulsory practice in the companies;
- Lack of interest among the students for involvement in student organizations and in the extra-curriculum activities at the University;
- Difficulties in the implementation of the legal solutions due to the non-existence of the Council for Financing of the Higher Education and, related to that, absence of model and criteria for financing of the higher education.

c) Opportunities

- UKIM is ranked as first university in the country;
- Most of the secondary school graduates enroll at UKIM, especially those with excellent success;
- The compatibility with the European higher education and training programs increase the interest for the UKIM programs;
- Increase in the number of national and international cooperation agreements between universities that will enable exchange of experiences and new opportunities in the educational and research activity;
- Increase in the number of application proposals for the European funds and international grants for research, as potential sources of funding;
- Engagement of junior staff through promotion of projects and research opportunities;
- Development of, and involvement in, multidisciplinary projects in the area of environment, health, energy, etc.
- Development programs for mobility and increase in the number of mobility for the teaching staff and students from the three cycles of study;
- Use of Internet and other communication resources for development of remote and lifelong learning programs;
- Development of study programs in English language in order to increase the number of foreign students and mobility;
- Cooperation with the business community on technology transfer, development of innovations and patents which will result in improvement of the material and financial situation at the University;
- Development of Manual for Quality Control and Corrective Measures and introduction of system for quality management at all units.

d) Threats

- No criteria identified for funding of the higher education;
- Reduction and cap on the amount of study fee in the state quota and in the co-financing quota;
- Unfair competition by other higher educational institutions due to lowered criteria in the delivery of the teaching and educational process;
- The continuous economic crisis results in less demand for labor force on the labor market and putting on hold of some study programs;
- Limited financial capacities for advancement of the scientific and research work and insignificant number of state funded projects;
- Limited opportunities for research in the economy which reduces the interest for third cycle studies;
- Low salaries that could result in the brain drain of the staff;
- The restrictive employment policy could result in unfavorable age structure of the teaching staff at the University and brain drain of young staff outside the country.

7. Conclusion

On the basis of the SWOT analysis it can be concluded that the University, as the biggest and the best University, ranked on the first place in the country, with quality teaching and research staff, infrastructure, facilities, equipment, educational offer and results from the scientific and research and the applicative activity, in the future needs to pay attention to the following:

In the teaching activity it is necessary to continue with the process of continuous harmonization of the study programs with the European programs but in the same time request again from the relevant Ministry changes to be made in the Law on Higher Education which foresees compulsory reaccreditation of each program, regardless of the percentage of changes that were made to that program, which makes it possible to catch up with the latest educational and scientific trends. It is also necessary to raise again the issue of introduction of legal framework regarding the study programs from the regulated professions – these need to be excepted from the 60:30:10 model. The University should continue to increase the offer of English language study programs but in the same time to identify the manner in which these programs will be funded by the state.

Strategy is required in order to overcome the issue with the age structure of the staff. This strategy should be developed together with the Ministry of Education and Science since Ss. Cyril and Methodius is state university and is unable to hire new staff on its own, without previous approval by the Ministry.

Regarding the scientific and research activity, the University should continue to develop the research infrastructure by increasing the number of applications for international projects as potential source of funding, in order to increase the results from the researches (publications, conferences).

UKIM should continue to develop the student standard using the mechanisms and opportunities it has at its disposal (scholarships, publishing activity, sports, culture, etc.) and support the activities of the student associations and organizations.

Intensifying of the cooperation with the business community for technology transfer, development of innovations and patents that will result in improvement of the financial and material situation of the University.

In order to improve the material and financial situation of the University, it is necessary to continue requesting from the relevant bodies to establish the Council for Financing of the Higher Education since without funding model it is very difficult to normally function and implement the foreseen activities and development strategies.

The planned measures for correction of the weaknesses are also foreseen by the Action Plan for 2012/13-2015/16, which is provided as enclosure (**Appendix 27**).