

JOSIP JURAJ STROSSMAYER UNIVERSITY OF OSIJEK



**STRATEGY OF JOSIP JURAJ STROSSMAYER
UNIVERSITY OF OSIJEK**

2011 - 2020

CHANGES AND AMENDMENTS

Osijek, December 2014

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Changes and amendments to the Strategy of Josip Juraj Strossmayer University of Osijek were prepared in the Rector's Office of Josip Juraj Strossmayer University of Osijek in 2014

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Based on the article 59 of the Act on Scientific Activity and Higher Education ("Official Gazette" No. 123/03, 198/03, 105/04, 174/04, 46/07, 63/11, 94/13, 139/13 and 101/14) and in accordance with the article 65 of the Statute of Josip Juraj Strossmayer University of Osijek, at its session held on 22 December 2014 the University Senate unanimously adopted the **Strategy of Josip Juraj Strossmayer University of Osijek 2011 – 2020/ Changes and amendments.**

Rector's Word

Development of strategic documents is a responsible task that covers key aspects according to which an institution is led and developed (mission, vision and guiding principles), which is specifically defined by the strategic aims and objectives based on these key aspects, and provision of implementation, monitoring and verification of the results achieved within the planned period. Strategic documents have to catch specificities of the institution, viewed as the particular features of its potentials and resources and through its interaction with the environment in which it operates and which should be recognized for specific qualities. In other words, this means that the development of the institution should follow consistent recognizable line directed towards achieving the goals set in this key development document.

The above principles are taken as a guideline in preparation of this document of changes and amendments to the Strategy of the University, and in this regard, this document should be viewed as a part of the main strategy of Josip Juraj Strossmayer University of Osijek for 2011-2020. There are several reasons why it was necessary to draw up this document, but most of them can be explained by a significant change in the method of financing of main activities of the University and its capital investment. We should not forget either the change in the leadership of the University, which has also caused a detailed analysis of the existing situation in terms of started projects and reform to ensure their completion, and create conditions for the implementation of new development projects. Technically, this was done in a way that prior to this document, the University Senate adopted the document "*Strategy of Josip Juraj Strossmayer University of Osijek 2011- 2020/ Report on completion of strategic aims and tasks from 19 December 2011 until 1 October 2013*", which includes detailed overview of accomplished tasks and strategic goals for the respective period, and provides a basis for the second part of strategy realization, which includes starting of new activities and development projects in the remaining period covered by the current strategy document.

It should be emphasized that the basic mission and vision has remained unchanged, which means that the University of Osijek in its educational activities is linking scientific and artistic work with the professional practices, thus promoting positive human and social values and cooperation at national and international level and represents an important factor for regional development by retaining its status of a modern, autonomous, research, education and innovation center. The task of the University of Osijek refers to strong and active involvement in a wide community of the European Higher Education Area, of which we are now a full member, by preserving at the same time its uniqueness and identity.

We wish that the University and the city of Osijek is recognized as a desirable place for studying, living and working.

Rector

Prof. Dr. Željko Turkalj

I. Introduction

The text of the *Strategy of Josip Juraj Strossmayer University of Osijek 2011 - 2020*¹ was adopted at the joint session of the Senate and the University Advisory Council on 19 December 2011. Overview of accomplished tasks from the *Strategy* for the realization period of two years is elaborated in the *Strategy of Josip Juraj Strossmayer University of Osijek 2011 – 2020 / Report on completion of strategic aims and tasks from 19 December 2011 until 1 October 2013* and adopted on the Senate session on 1 July 2014. In the following half a year period there is the following document defined *Strategy of Josip Juraj Strossmayer University of Osijek 2011 - 2020/ Changes and amendments*².

Text of the *Strategy* from 2011 refers to the long-term plan and program of the University development from 2011 – 2020 with defined goals in university activities: teaching process, higher education and students, science and scientific research, international and interuniversity cooperation, contributing to the University environment in which it operates, human and material resources, as well as reconstruction and construction of the University. *Changes and amendments to the Strategy* are based on the evaluation of the current implementation of the *Strategy* from 2011 and re-thinking of strategic goals, taking into account new developments in the regional and national environment. The document *Changes and amendments to the Strategy* comprises for first time the *Strategy of the quality assurance management system* as the seventh strategic area for the purpose of strengthening the effective organizational structure for the implementation of the activities of quality management systems at all levels and improving the level of development and effectiveness of the quality management system according to the criteria of the *Standards and guidelines for quality assurance the European higher education area*.

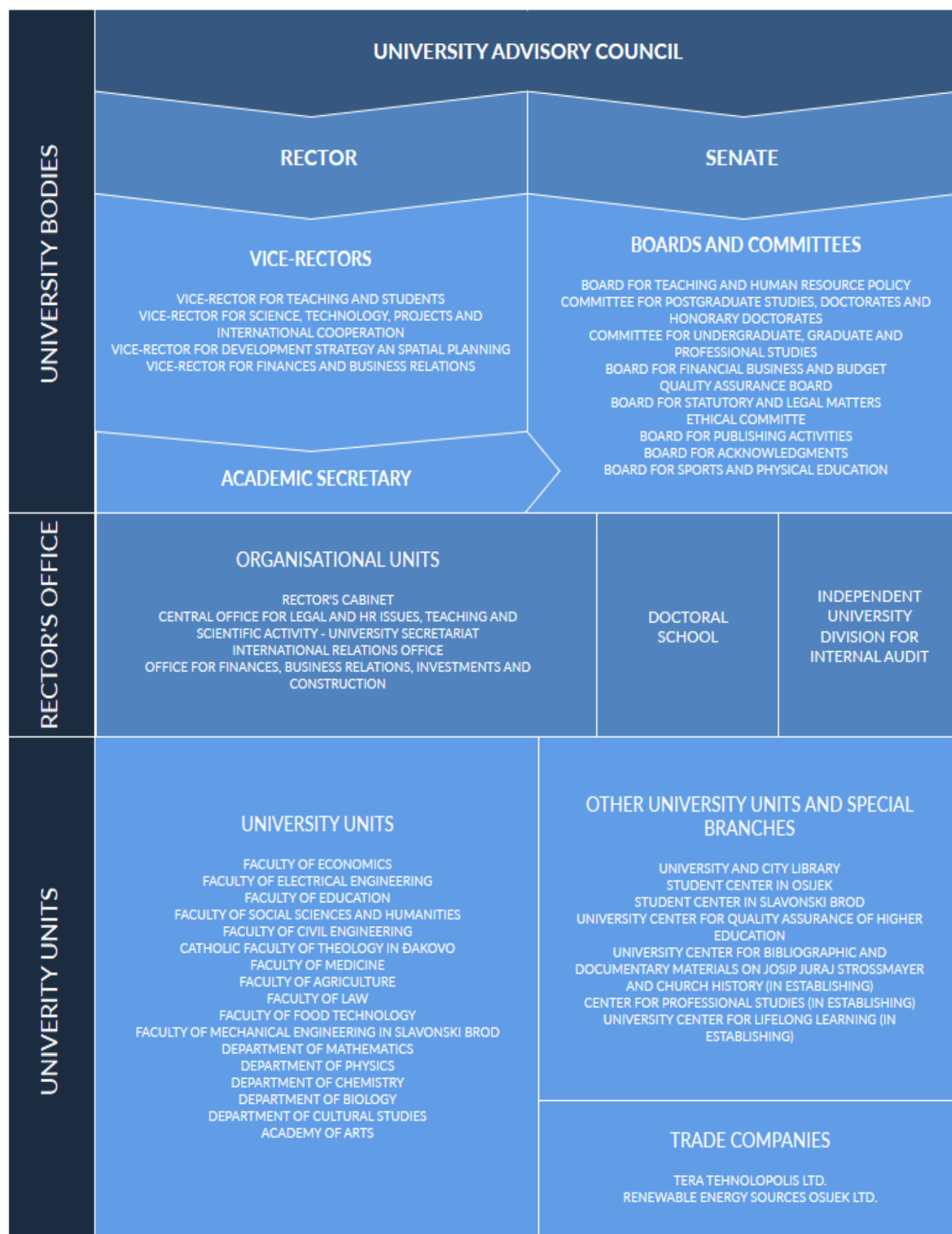
Numeration of basic strategic aims within the *Changes and amendments to the Strategy* has remained the same as in the original *Strategy*, with addition of the strategic area of quality assurance. However, numeration of the strategic tasks is not following strictly the numeration of the original *Strategy*, because of realization of some tasks in the previous period and because of quantitative and qualitative changes in the content and form of strategic tasks. As an addition to the original *Strategy*, there are defined indicators to valorize success in achievement of strategic tasks, in order to verify the completion of individual aims and tasks and to define a unique database.

Document of the *Changes and amendments to the Strategy* is a result of continuous engagement of the rector, vice-rectors, members of the Committee for monitoring of University Strategy realization and of professional services of the University, prepared also in cooperation with the members of the Senate and whole academic community. We hope that this document of the *Changes and amendments to the Strategy* will serve as a starting point for further considerations about the University development, as well as an orientation and corrective in its advancements.

¹ Further in the text *Strategy*.

² Further in the text *Changes and Amendments to the Strategy*.

II. Organizational scheme of Josip Juraj Strossmayer University of Osijek



III. STRATEGIC AIMS

III.1. TEACHING PROCESS

Primary task of Josip Juraj Strossmayer University of Osijek is to implement university and professional higher education focused on students. In the new circumstances of civil society development, the University is urged to develop and change itself because the development is a basic precondition for achieving the appropriate level of quality in the international area of higher education. It promotes and develops competencies of young people that are important for the economic and social well-being at regional, national, and global level.

In line with modern trends and being aware of responsibility towards the development of the region, the University of Osijek is fully focused on a student as an individual that requires facilitated access to education and provision of sufficient studying conditions.

In order to achieve the above stated, we are obliged to continuously improve the quality of teaching process by pursuing the strategic aims focused on:

- students
- study programs
- teachers.

Strategic aim 1.1.: Students

Enabling better studying conditions, continuous work on increasing the achievement of students in all study programs with regards to student success and learning outcomes and changing enrollment policy

Strategic aim 1.2.: Study programs

Continuous modernization of study programs based on the evaluation of the same, as well as work on the introduction of new study programs according to the needs of the labor market

Strategic aim 1.3.: Teachers

Strengthening the University constituents with respect to the number, qualifications and competences of teachers at scientific-teaching, teaching and associate positions.

III.2. SCIENTIFIC RESEARCH ACTIVITY

The Act on scientific activity and higher education ("Official Gazette" No. 123/03, 198/03, 105/04, 2/07 – Decision of the Constitutional Court of the Republic of Croatia 174/04, 46/07, 45/09, 63/11, 94/13, 139/13 and 101/14 - O and RUSRH) determines the main principles on science and higher education. Scientific activity and higher education present the activities of special interest for the Republic of Croatia and are considered as a part of international, especially European scientific, artistic and educational area. Scientific activity is based on: freedom and autonomy of creativity, ethics of scientists, public work, the connection to higher education system, international standards of quality and the promotion and respect for specific national context and intellectual property protection.

Higher education is based on the inseparability of university education and scientific research, and artistic creativity.

Strategic aim 2.:

To profile the University as a research university as of the criterion of scientific excellence. To participate in the establishment of criteria and measures to encourage and reward excellence in

research within cooperation with other Croatian universities. In this sense, the quality of scientific research shall be brought to the higher level, where cooperation between scientists from different constituents of the University shall be emphasized. This Strategic aim is specified in the stated tasks related to papers, projects and postgraduate doctoral and specialist studies.

III.3. INTERNATIONAL AND INTERUNIVERSITY COOPERATION

International and interuniversity cooperation of Josip Juraj Strossmayer University of Osijek is realized within activities agreed in bilateral interuniversity agreements, in the framework of international university networks, international scientific and professional research projects supported by the European Commission, cooperation at the level of University constituents and international activities of student associations.

Strategic aim 3.:

To establish functional international cooperation, especially with the European Union and countries in the neighborhood, and to exchange experiences in teaching and the organization of joint studies, in joint projects and joint publication of scientific papers.

III.4. UNIVERSITY AND SURROUNDINGS

Josip Juraj Strossmayer University of Osijek is one of eight Croatian universities and the only regional University in Eastern Croatia that covers the area of five Slavonian counties: Brod-Posavina, Požega-Slavonia, Virovitica-Podravina, Vukovar-Syrmia and Osijek-Baranja counties, with over 900 thousands inhabitants. In the long-term development plan, it is important that the University plans its development in accordance with the needs of the community in which it acts.

Strategic aim 4.:

To develop into a regional University with recognizable identity in the narrow regional and broader national and European context. To accomplish partner relations and cooperation with local community (city and county authorities) in the regional surroundings. To develop cooperation with the economy and civil sector and to become a leader in the economic and regional development.

III.5. HUMAN AND MATERIAL RESOURCES

In the academic year 2012/2013, the ratio of teachers and students at the University was 1:19; ranging from 1:5 at the Academy of Arts in Osijek, to 1:81 at the Faculty of Economics in Osijek. The equalization within the ratio is achieved by increase in the number of teaching staff, and by reducing the number of enrolled students in some studies.

Strategic aim 5.1.:

To take care about teachers, associates and administrative and professional staff at the University with respect to their education and quality of their knowledge and skills. To act towards reaching of an optimal ratio of teachers and students, to take care of equal representation of teachers in academic positions and of personal standard of staff and students.

Strategic aim 5.2.:

Analysis of current financial conditions, detection of critical costs at individual components (location, type, time of occurrence of the cost). Systematic monitoring of incomes from its own activities.

III.6. RECONSTRUCTION AND DEVELOPMENT OF THE UNIVERSITY

Document related to the development of the University, *Program of construction and development of Josip Juraj Strossmayer University of Osijek until 2010*, adopted on 18 March 1999, planned the long-term development of the University at three main locations: Tvrđa, the Drava barracks and the Gaj barracks, as well as the development Faculty of Mechanical Engineering in Slavonski Brod.

Strategic aim 6.1.:

Completion of the Phase 2 of construction and renovation of the University campus until the end of 2016

Strategic aim 6.2.:

Redefinition of the capital investments program for the Phase 3 of construction and renovation of the University in 2014 - 2020, and assurance of its monitoring and realization.

Strategic aim 6.3.:

Implementation of preparatory actions and preparing technical documentation for capital investments in the next project period.

III.7. QUALITY ASSURANCE SYSTEM

Existing quality assurance system at the University of Osijek was established in 2012, by defined *Manual on Quality Assurance* and by establishing of the Centre for quality assurance in higher education (Quality Assurance Centre). System is based on the *Standards and guidelines for quality assurance the European higher education area* (ESG). Documentation for the quality assurance system was prepared according to the standards HRN EN ISO 9001 for management of the teaching, scientific research and business processes.

Strategic aim 7.1.:

Strengthening of efficient organizational structure for the implementation of the activities of quality management systems at all levels.

Strategic aim 7.2.:

Improving the level of development and efficiency of the quality assurance system according to all criteria of the *Standards and guidelines for quality assurance the European higher education area* (ESG).

III.1. TEACHING PROCESS

Strategic aim 1.1.: Students

Enabling better studying conditions, continuous work towards the increase of student achievements in all study programs with regard to student success and learning outcomes and changing enrollment policy.

III.1.1. Student status

Student status at Josip Juraj Strossmayer University of Osijek at the University constituents is gained by enrolling the undergraduate, graduate, integrated or professional study. Student status is full-time, part-time, or visiting student.

Full-time students study according to the program based on a full teaching schedule. The student has the status of full-time student during the regular course of study, and during the time that is for a third longer than the required course of study (i.e. by the end of the academic year in which the term expires). The duration of the study does not include the dormant status.

Full-time students can simultaneously study in another study program on the basis of a special decision of the relevant academic body.

Part-time students are student that study while they work or perform other activity that requires adapted terms and ways of carrying out the studies in accordance with the curriculum. The cost of part-time study is entirely covered by the student.

Study programs that are realized at the University, as of the Bologna process, have to be socially relevant, transparent and comparable at local and national level, and in particular, they should lead to the increase of employability in the local environment and wider.

One should have in mind that the possibility of continuing higher education in Croatia are significantly higher for students of higher socio-economic status. This is supported by studies and statistical indicators of the Institute for the Development of Education and the Ministry of Science, Education and Sport, according to which almost half of Croatian students (45%) at least one of the parents has a higher education, while only 3% of students comes from families in which parents have completed only primary school. Research clearly confirms that students from families with lower incomes, who do not have full financial support of their parents, are often forced to work while studying, and their access to higher education in Croatia is more difficult. In this context, it should be remembered that the Bologna process emphasizes the need for the student population at all levels of higher education reflects the diversity of the population.

Task 1.1.1.

Definition of position, rights and obligations of students in the educational process at the University.

Task 1.1.2.

Facilitating access to higher education to young people from families of lower socio-economic status and students with disabilities over the next ten-year period.

Task 1.1.3.

Facilitating education through various forms of scholarships and grants over the next ten-year period (award grants and scholarships in accordance with the financial possibilities at least once a year).

Our region, as proved by various studies, has the lowest median household income. Studies that use deprivation, which seeks to measure socially unacceptable standard of living through a lack of basic goods, show that we live in a region with high level of deprivation due to our citizens remain largely inaccessible to basic goods. Almost half of the households in the Osijek-Baranja County declares that they have troubles to cover for their basic needs, and our region is one of those with the lowest gross domestic product (GDP) per capita (Eurostat).

The Senate decision of 29 April 2014 granted 28 scholarships and 5 support to students of lower socio-economic status. Students who belong to other potentially vulnerable groups were awarded three, and students with disabilities two scholarships. University constituents are thereby suggested to continue other forms of supports for underrepresented groups of students.

Task 1.1.4.

Conducting activities by University constituents to enhance the quality and studying conditions over a ten-year period.

In cooperation with its stakeholders, the University is currently working on changes and amendments to the Regulations on studies and studying at Josip Juraj Strossmayer University of Osijek, in order to adjust to legal novelties and current needs.

III.1.2. Students with disabilities

In 2008, Josip Juraj Strossmayer University of Osijek established the Office for students with disabilities as a reference center in which disabled students can get the necessary information and support. Students with disabilities have to be included in regular teaching process by provision of with individual approach, the development of new teaching methods, and the application of assistive technology.

Task 1.1.5.

Investments into improving the quality and conditions of studying for students with disabilities.

III.1.3. Enrollment quotas and enrollment policy of the University

Ministry of science, education and sports and Josip Juraj Strossmayer University of Osijek concluded on 11 December 2012 the *Agreement on full subsidy of participation in the study cost for full-time students in the academic years 2012/2013, 2013/2014 and 2014/2015*. After signing of the *Agreement*, the University constituents have appointed coordinators for monitoring of the each specific aim (Goal 1 - Facilitating the access to study and support during study for students of lower socio-economic status and students with disabilities, Goal 2 – Increasing the number of students in the STEM area, Goal 3 - Study programs based on the principle of learning outcomes, and Goal 4 – Facilitating the access to higher education for students older than 25 years).

Josip Juraj Strossmayer University of Osijek, in coordination with its constituents, made an overview of enrollment quotas approved at the session of the Senate on 29 April 2014 for first year students at university undergraduate, graduate, integrated and professional studies in the academic year 2014/2015. There was an observed increase in enrollment quota by 10% in favor of the STEM area.

Increase of graduates with a degree in the STEM areas is in line with *Recommendations for education policy and scholarship policy in 2014 in the Osijek-Baranja County* created by the Croatian Employment Service - Regional Office in Osijek. Recommendations are made since 2010 on the basis of relevant statistical data and indicators on employment of unemployed persons according to the program of education, data from the survey of employers, and local and regional strategies and plans for economic development. The lack of persons with a degree in the STEM areas, and in the information and

communication area and interdisciplinary studies related to these areas, has been recognized at national level in the report *Linking education and labor market needs* of the Ministry of Labor and Pension System, and this (January, 2014) .

Task 1.1.6.

Adjustments of University enrollment quotas to labor market needs (in cooperation with industry, the public sector and the Croatian Employment Service).

Task 1.1.7.

Identifying the skills and knowledge that graduates should possess for successful integration into the labor market (more flexible educational process in order to achieve flexible (young) workforce for the labor market) in accordance with the Croatian Qualification Framework.

Task 1.1.8.

Increase of the number of enrolled students in the STEM area.

III.1.4. Active enrollment policy of the University

In order to harmonize the enrollment policy with the labor market, in recent years there has been a significant decrease in enrollment quotas for students in the field of social sciences and humanities (reduction of more than 10%), whereby the quota for Law study was reduced by almost 20%, and for the study of Economics for 10%. At the same time, the Senate of the University approved the increase in the quota for study programs that are in short supply and which are estimated to be an important factor in the development of the region (e.g. in the field of technical sciences, biomedicine and health)

In the next strategic period, by taking into account the human resource, space and infrastructure conditions, particularly availability of IT and library holdings, Josip Juraj Strossmayer University of Osijek, as a significant factor in the development of Eastern Croatia that promotes and develops students' competencies important for economic and social benefits, will systematically work on redefining of existing and launching new study programs in accordance with the recommendations of the Croatian Employment Service and the Croatian Qualification Framework.

One of important goals in the *Strategic framework for European cooperation in education and training until 2020* is to reach 40% of the population aged 30-34 years who have higher education degree. Eurostat data on the share of population with tertiary education in total population in Croatia amounted to 24.3%, which is below the target values of the European Union.

Task 1.1.9.

Increase of the number of graduates with a degree in technical, biomedical, biotechnical and natural (STEM) sciences, in the information and communication area and related interdisciplinary studies.

Task 1.1.10.

Adjusting the study programs to the needs and possibilities of studying for people older than 25 years, in order to raise the educational level of population and to facilitate the easier involvement of these persons in the labor market.

Task 1.1.11.

Establishment of study programs on the basis of learning outcomes with ECTS credits that represent real workload of students (that are necessary to acquire specific learning outcome).

Task 1.1.12.

The harmonization of criteria and conditions for the transfer of ECTS credits between universities and between the university and professional studies.

Josip Juraj Strossmayer University of Osijek is aware of its responsibility and role in local and regional development and, in particular, education and cultural transition in the "knowledge society". By taking into account the economic situation, labor market needs, Strategy and development plans at regional and local level, the University cooperates with stakeholders and partners in accordance with financial possibilities and transparent management models, thus testifying its commitment to achieving social objectives and technological progress.

III.1.5. Erasmus mobility of students

The Erasmus+ Key Action 1 2014-2020 is used by the University to encourage individual academic mobility in higher education. Within the Program, students can spend part of their studies at a higher education institution abroad or realize an internship in order to achieve a greater degree of autonomy, cultural richness, knowledge of foreign languages and the ability to work in a multicultural environment. By participating in the Erasmus+ program, the University contributes to the creation of the higher education area and promotes cooperation between higher education institutions, as well as cooperation between universities and companies. Furthermore, it encourages the transfer of innovations and increases the level of transparency and compatibility of qualifications obtained in higher education and vocational education.

In the academic year 2013/2014, outgoing Erasmus mobility referred to 97 students, of whom 68 realized study visits, and 29 realized professional training. Duration of study mobility was 410 months, and of professional training 117 months. The most mobilities was realized by students of the Faculty of Social Sciences and Humanities (17) and the Faculty of Electrical Engineering (16). The most of host higher education institutions were located in Germany, Hungary and Portugal, and Austria.

In the incoming Erasmus mobility in the academic year 2013/2014, the University of Osijek hosted 23 foreign students for studies and 1 foreign student to perform professional training. The most students came from Poland (8), Spain (5) and Macedonia (5). Incoming mobility of foreign students in the academic year 2013/2014 at the University of Osijek lasted for 135 months. Foreign students have the opportunity to choose from more than 300 courses taught in English, as announced at (<http://www.unios.hr/?g=5&i=10&j=124>), and there is also a course on Croatian language and culture offered to all incoming students with 6 ECTS awarded upon successful completion.

Task 1.1.13.

To increase the incoming and outgoing student mobility by 10% until 2020.

III.1.6. University sport

Office for sport at Josip Juraj Strossmayer University of Osijek provides for many extracurricular sports activities for students (swimming, skating, rowing, volleyball, futsal...) to promote health culture.

Sports competitions at the University are carried out through a variety of sports in the women and men competition. Those competitions make a qualifying basis for creation of university teams that compete at a higher level, such as state university championships and European university championships and universiades.

Special attention is paid to the organization of free time of students by offering to them organized and purposeful activities to promote awareness on physical health and the importance of physical activity.

Task 1.1.14.

Promotion of university sport at national, European and international level as a part of promotion and recognition of the University.

Task 1.1.15.

Organization of sports activities of students in their free time.

Task 1.1.16.

Improvement of university sports activities based on reported student interests and needs.

III.1.7. Students' career advice service

Students' career advice service at the University of Osijek was established on 20 April 2009, as a result of the project TEMPUS JEP ECAS *Establishing of Career Advice Services at Croatian Universities*. The service is primarily focused on final year students of undergraduate and graduate studies, but also on students of other years that want to prepare themselves for the labor market.

Task 1.1.17.

Continuous assistance to students through individual and group counseling about job opportunities and career development.

Strategic aim 1.2.: Study programs

Continuous modernization of study programs based on the evaluation, as well as introduction of new study programs, according to labor market needs.

III.1.8. Studies

According to the Act on Scientific Activities and Higher Education, higher education in Croatia is conducted through university and professional studies. University studies are enabling students to work in science, arts and higher education, in business, public sector and society, but also to further development and apply scientific, artistic and professional achievements.

In the academic year 2014/2015, the University finds itself in the tenth year of implementation of the Bologna process. University teaching is organized at 88 university studies, and 37 undergraduate studies, 46 graduate studies and 5 integrated undergraduate and graduate studies (at the Faculty of Education, Faculty of Medicine, Faculty of Law, Catholic Faculty of Theology and the Department of Mathematics). In addition, teaching is held also at 7 professional studies.

Task 1.2.1.

To establish the ratio of undergraduate and graduate studies to be 1: 2 in the next three-year period.

Task 1.2.2.

To prepare an analysis of study programs in accordance with the Act on quality assurance in science and higher education, the Regulations on the content of license and conditions for issuing of licenses to perform activities of higher education and carrying out study programs and re-accreditation of higher education institutions, as well as according to established strategic objectives of the University in teaching activities and higher education.

III.1.8.1. Studies in English language

In the forthcoming period, Josip Juraj Strossmayer University of Osijek will modernize existing curricula and will support the study into realization of joint graduate and postgraduate study programs in English and / or other foreign languages to facilitate the incoming mobility of teachers and students and to create a competitive learning environment. Special attention will be paid to the expansion and evaluation of so-called Erasmus courses.

Task 1.2.3.

Development of study programs that will be taught in English and / or other foreign languages to support mobility of students and teachers and to offer more ERASMUS courses (including the possibility of initiation of joint study programs at all levels).

III.1.8.2. Reorganization of studies and establishment of new studies

In Croatia, there is 18.3% of highly educated people, and regions with the lowest number of highly educated people are central and eastern Croatia, with the percentage of only 11.6% (Eurostat). In accordance with the recommendations of the Ministry of Labor and Pension System dated 14 January 2014, which are made with the purpose of linking education and labor market needs, it is defined that there is a lack of qualified workers with higher education degree in certain areas of science in many Croatian counties. Within the area of natural sciences, there is a shortage of experts in mathematics, in the field of technical sciences, there is a lack of electrical engineers, mechanical engineers and computer experts, in the field of biomedicine and health there is a lack of experts in basic medical sciences and pharmacy, in the field of social sciences there are experts lacking in special education and speech therapy, and in the field of humanities and there is a lack of anglists and germanists. Biotechnical science and arts do not show significant lack of workers on the labor market.

Regional Office Osijek of the Croatian Employment Service, coordinated by the Central Office, has performed an analysis and forecast about the labor market needs for particular occupations, and accordingly they have made recommendations concerning education enrollment policy (December 2013). Based on the forecast for certain professions in the labor market, there are recommendations made regarding the increase or decrease in the number of enrolled students in individual educational programs. The recommendations do not apply only to enrollment quotas, but also to the scholarship awards. The recommendations concerning enrollment policy and scholarship policy in 2014 for the Osijek-Baranja County suggest the increase in the number of enrolled students who receive scholarships for professional studies in: Radiological Technology and Sanitary Engineering, and for university studies: Production Engineering, Medicine, Veterinary Medicine, Social work, Speech therapy, Rehabilitation, Social pedagogy, Geodesy and Geoinformatics, Architecture and Urban Planning, Dental medicine and Geography (teaching orientation). Also, educational programs which should reduce the number of enrolled students and awarded scholarships in professional studies are Administration studies, Business economics, Agrarian entrepreneurship, Plant breeding, Livestock breeding, Mechanization in agriculture and Physiotherapy, and in university studies: Croatian Language and Literature (single and dual degree), Philosophy and Croatian language and literature, Business economics, Law, Early and pre-school education, Philosophical and theological studies, Psychology and Information science (single degree).

However, in the assessment and implementation of the above recommendations one should have in mind that the University of Osijek acts as a regional university and the only one in eastern Croatia, oriented towards residents of 5 Slavonian counties, and also students from neighboring countries.

Task 1.2.4.

Establishment of new study programs in architecture, dentistry, pharmacy, physical education, social work and technical education according to the market needs in the immediate and wider environment.

III.1.8.3. Part-time studies and environment

Part-time students are those who study while they work or perform other activity, which requires adapted terms and ways of carrying out the study program in accordance with the curriculum. The cost of part-time study is entirely covered by the student. The organization of teaching should therefore be adapted to the needs and possibilities of studying for people over 25 years of age (as defined in the Task 1.1.10.).

III.1.8.4. Interdisciplinary study programs

University interdisciplinary study programs at undergraduate and graduate level allow mobility of students and teachers within the University, and expand its integrative function. In this regard, special attention in preparation of study programs should be paid to their interdisciplinary focus and structure.

III.1.8.5. Professional studies

Professional studies provide to students an appropriate level of knowledge and skills to perform professional activities and training for immediate employment process. Bologna reform gives great attention to the development of professional studies, so in developed EU countries more than 50% of the student population studies at professional level. Professional studies therefore need to be flexible in the context of identifying the needs of the labor market, as well as technical and practical competences that are missing.

Teaching at professional studies in the academic year 2014/2015 is organized, as already mentioned within 7 professional study programs.

Task 1.2.5.

Establishment of the University Centre for professional studies that will assure organization of professional studies at the University.

Strategic aim 1.3.: Teachers

Strengthening of University constituents with respect to the number, qualifications and competences of teachers in scientific-teaching, teaching and associate positions.

III.1.9. Teachers

Teaching, scientific, artistic and professional activities are performed by teachers, associates and scientists. The qualification of teachers, associates and scientists is determined by their selection to the appropriate scientific-teaching, artistic-teaching, teaching and associate titles in accordance with the Act on scientific activities and higher education and the Statute of Josip Juraj Strossmayer University of Osijek. Procedure of selecting teachers into scientific, scientific-teaching and artistic-teaching titles, teaching, associate and professional titles and corresponding employment positions and professions at the University of Osijek and its constituents is performed in accordance with the Strossmayer scientific-educational and artistic-teaching component are conducted in accordance with the Regulations on the election into scientific, scientific-teaching, artistic-teaching, teaching, associate and professional titles and corresponding employment positions.

The University has to assure the quality and expertise of its teachers. Through quality teaching, teachers have the task to motivate students, to encourage their independent work and to ensure achievement of learning outcomes. The success of teachers can be evaluated only if there are defined qualitative and quantitative indicators for the evaluation of their work.

Task 1.3.1.

To define criteria of success of teachers, as well as to define modes of monitoring the teaching quality.

Task 1.3.2.

Improvement of teachers' competences for teaching (student-focused model).

Task 1.3.3.

Definition of short-term and long-term human resources policy of the University.

The appropriate ratio of teachers and students in all University constituents greatly improves the quality of teaching process and the development of student competencies. Achieving of an ideal ratio of teachers and students in the future will contribute to more comfortable working environment, it will make teachers more accessible and focused on students / student groups and the teaching process will be focused on achieving quality and learning outcomes. As a quantitative indicator of quality, comparative experiences indicate that the best-ranked world's universities record a ratio of teachers and students that is less than 1:30 (ASHE).

Task 1.3.4.

To improve the ratio of teachers and students at University studies, in particular within the STEM area.

Task 1.3.5.

Creation of job positions that will be financed from the program contracts (payment of assistants, scientists from abroad, etc.).

III.1.10. External cooperation at Josip Juraj Strossmayer University of Osijek

Analysis of external cooperation at University constituents is marked by significant financial cost reductions over the past five years. However, despite the positive indications, the external cooperation at the University needs to be brought into the limits that are necessary and essential for the best possible teaching and symbiosis of teaching and top practical experience and knowledge, especially in the field of clinical science, and other STEM areas, in arts and other areas where external cooperation has the basic purpose of improving quality and achieving top results in teaching, learning and scientific process.

Task 1.3.6.

Continuous monitoring of costs of external cooperation and mandatory planning of budget intended for external cooperation (for each academic year).

Task 1.3.7.

To increase mobility of teachers within universities in Croatia and abroad by 10% until 2020.

III.1.11. Program for harmonization of pedagogical-psychological-didactic competences

The main purpose of the Program for harmonization of pedagogical-psychological-didactic competences is the homogenization of objectives of university departments and various study programs aimed at development of pedagogical and psychological competences of teachers.

Teachers' profession is of national interest. Several hundred pupils (23,751 - Osijek-Baranja County, 327,204 - Republic of Croatia) and secondary school students (182,878 - Croatia) are entrusted to teachers and associates who need to provide for a quality education. Josip Juraj Strossmayer University of Osijek is obliged to enable the acquisition of relevant competences for teachers. Renewed university program for the acquisition of pedagogical-psychological-didactic competences was developed on the basis of previous

trainings offered by the Faculty of Education and the Faculty of Philosophy, by following legal provisions, results of the University evaluation and the rationalization of university resources (teachers, space).

Pedagogical-psychological-didactic education (pedagogical competences) that teachers have to develop, have been defined in the Article 105, paragraph 6 of the Law on Education in Primary and Secondary Schools (OG 87/08, 86/09, 92/10, 105/10, 90/11, 05/12, 16/12, 86/12, 126/12, 94/13). The proposed program of pedagogical-psychological-didactic education is a document, which will be extended with other topics, such as the redesigned methodology in profession, instruments of evaluation of teaching and others.

Josip Juraj Strossmayer University of Osijek aims to educate competent teachers able to work in modern Croatian schools that requires the ability to identify and solve complex educational situations.

Task 1.3.8.

To harmonize the implementation of the program of pedagogy, didactics and psychology of education in the departments of Josip Juraj Strossmayer University of Osijek and the Academy of Arts in Osijek in the academic year 2014/2015

III.1.12. Lifelong learning

It is useful to highlight the importance of developing lifelong learning and education "as every learning activity throughout life performed to improve the knowledge, skills and competences within personal, civic, social or professional activity of an individual". In this respect, Josip Juraj Strossmayer University of Osijek identifies strong strategic need to develop lifelong learning programs to boost competitiveness and improve employability and to open itself to formal, non-formal and informal forms of learning of citizens of all ages. The University Statute and the Regulations on studies and studying at the University provide a framework for initiation of various professional training programs, by keeping in mind the concept of lifelong learning and training. Such program is not considered as a study, as provided by the law. Upon completion of professional training program at the University, a candidate is issued a certificate. Professional training within the concept of lifelong learning and training is carried out as a formal, non-formal, informal and / or self-directed learning, according to the Adult Education Act.

Task 1.3.9.

Establishment of the University Centre for Lifelong Learning.

Task 1.3.10.

Continuous improving of the quality of lifelong learning with a proposal of appropriate programs of shorter training (including various training programs for teaching and non-teaching staff).

Different training programs shall enable development of additional competences and different forms of additional training for better employment opportunities at the labor market and in the University environment. Within the concept of lifelong learning, it is necessary to enable assistants and junior researchers to acquire competences in pedagogical training necessary for university teaching. Program of pedagogical training for teaching assistants and junior researchers began in the academic year 2009/2010 at the Faculty of Education. The Regulations on the election into scientific, scientific-teaching, teaching, associate and professional titles defines that all associates with the title of assistant and senior assistant have to complete the program of pedagogical training before having been elected as assistant professor.

Besides international interdisciplinary doctoral program in English at the Faculty of Economics in Osijek, there are possibilities opened for development of similar activities at the University in the context of lifelong learning, which is one of the important guidelines for development of higher education in the European Union. Such activity requires specific, suitably equipped premises. In this way, it would be possible to attract international students and business people to strengthen the internationalization of the University.

Further internationalization of the University will be realized through the mobility of students and teachers (by creating international teams of teachers).

Task 1.3.11.

Improving the quality and availability of teaching through the development of distance learning programs in the next five years.

Task 1.3.12.

Definition of regulations on lifelong learning.

Task 1.3.13.

Definition of regulations on non-formal and informal learning.

III.1.13. Bologna process at Josip Juraj Strossmayer University of Osijek

All constituents within Josip Juraj Strossmayer University of Osijek implement the Bologna process.

A summary of measures and procedures taken for improvement of the teaching process and the quality of education at University constituents can be presented by the following basic steps:

- teaching focused on students
- organizing the mentoring system for students
- continuous monitoring, evaluation and assessment activity of students
- evaluating the quality of teaching and teachers
- supervision of implementation of the Bologna process.

Analysis of the implementation of the Bologna process at the University of Osijek shall determine the reform components that have been implemented, but also to point out possible disadvantages of its implementation.

In order to monitor the trend of the Bologna process implementation, in the academic year 2014/2015 successful study will be monitored through the prism of exams passed and indicators related to the mobility of students, the average number of ECTS achieved per year, improving the quality of higher education, etc.

Based on the analysis of Bologna process implementation at the University of Osijek, there were basic measures defined for successful implementation of the Bologna reform, as follows:

- all constituents adopted new study programs, which are organized in two or three study cycles according to the Bologna study model.
- all constituents implemented a mentoring system to supervise students
- at the level of the University and its constituents, implementation of the reform is monitored through the Committee for monitoring the implementation of the Bologna process.
- continuous monitoring, evaluation and assessment of students' activities was introduced.
- functional quality assurance system has been introduced by the University Centre for quality assurance in higher education, as well as by Committees for quality assurance at all University constituents.
- Since academic year 2008/2009, mobility programs of students and teachers has been successfully organized at the University. The University of Osijek fully participates in the Erasmus+ program and according to the majority of indicators, efficiency of studying has been sustainably increased in almost all constituents. This becomes particularly obvious at the constituents that recorded significant difficulties in studying success.

In accordance with the principles of the Bologna Declaration and in order to make higher education system at the University of Osijek sustainable and continuously improving, it is necessary to insist on the following activities:

- continuous renewal and strengthening of the teaching structure
- construction of necessary spatial capacities which are a precondition for improving the quality of teaching, learning and scientific processes (Phase 3 of the campus construction)
- further intensification of activities regarding the definition of learning outcomes for study programs their harmonization with the Croatian Qualification Framework
- strengthening of activities aimed to encourage mobility of students and teachers.

Successful integration of our higher education system in the European higher education area is possible only through continuous implementation of strategic objectives, which are a *conditio sine qua non* in the development of the higher education system and positioning of the University of Osijek as a regional and euroregional teaching and research leader.

III.2. SCIENTIFIC RESEARCH ACTIVITY

The Act on Scientific Activity and Higher Education ("Official Gazette" No. 123/03, 198/03, 105/04, 2/07 – Decision of the Constitutional Court 174/04, 46/07, 45/09, 63/11, 94/13, 139/13 and 101/14 - O and RUSRH) defines main principles on science and higher education. Scientific activity and higher education refer to activities of special interest for the Republic of Croatia and are an integral part of international, especially European scientific, artistic and educational area. Scientific activity is based on: freedom and autonomy of creativity, ethics of scientists, public work, connection with the system of higher education, international standards of quality, and promotion and respect for specific national issues and intellectual property rights. Higher education is based on the inseparability of university teaching and scientific research, as well as artistic creativity.

In accordance with these legal provisions, the University of Osijek supports the unity of teaching and scientific research, which is a prerequisite for its development, and contributes to the development of a knowledge society. Artistic work at the University is given special attention. Members of the Osijek academic community are teachers, scientists, associates, students and other employees involved in the process of higher education, scientific research and artistic creativity.

Scientific activity and higher education refer to activities of special interest for the Republic of Croatia and an integral part of the international, particularly European scientific, artistic and educational area.

Scientific research and artistic activity at Josip Juraj Strossmayer University of Osijek is performed in accordance with the *Act on Scientific Activity and Higher Education*, within the following scientific fields and arts:

- natural sciences (Department of mathematics, Department of Physics, Department of Biology and Department of Chemistry)
- technical sciences (Faculty of Electrical Engineering, Faculty of Civil Engineering, Faculty of Mechanical Engineering)
- biotechnical sciences (Faculty of Agriculture and Faculty of Food Technology)
- biomedicine and health (Faculty of Medicine)
- social sciences (Faculty of Economics, Faculty of Social Sciences and Humanities, Faculty of Agriculture, Faculty of Law and Faculty of Education)
- humanities (Faculty of Social Sciences and Humanities, Catholic Faculty of Theology)
- artistic area (Academy of Arts)
- interdisciplinary area of science (social sciences and humanities – Department of Cultural Studies).

Scientific research activity is based on scientific, fundamental, applied and development research, and it is carried out by scientists at universities in the framework of national and international research projects, and within the training of young researchers.

Research and development contribute to creation of high-quality scientific and teaching area as a support for economic, social and human development of knowledge-based society.

The intensification of bilateral international cooperation in the future is one of the priorities in the development of the University of Osijek with the aim to increase the level of international recognition.

Through the active membership in the Euraxess network that consists of representatives of 35 European countries and 200 Euraxess centres in all major cities of Europe, the University of Osijek continues to educate employees for preparation of project proposals to the European Commission calls. Euraxess network provides assistance to foreign researchers and scientists to organize their stays in the Republic of Croatia, as well as to Croatian researchers who wish to pursue research work abroad.

The University of Osijek, which aims to develop into a modern European University, has recognized the importance of an interdisciplinary approach to regional cooperation, which will become a major issue in international activities at the University of Osijek. Apart of the specialist interdisciplinary postgraduate study program in European studies - Regional cooperation and integration in the European Union (initiated in 2004/2005), in 2011 new interdisciplinary doctoral study program in European studies has been organized as a first postgraduate doctoral study of this type in Croatia. As of its interdisciplinary character, the study will provide scientific progress of young researchers from different areas of science and will support continuity of cooperation with partner institutions, which deal with the European Union issues from the legal, economic, security and (external) political aspects.

Sources of funding for scientific research activity are mostly:

- internationally competitive scientific projects
- nationally competitive scientific projects
- national funding for science.

According to the decision on assigned multi-annual institutional funding of scientific activities in public universities and public research institutes in the Republic of Croatia in the years 2013, 2014 and 2015, the Ministry of Science, Education and Sports and Josip Juraj Strossmayer University of Osijek have on 18 July 2013 signed the *Contract on assigned multi-annual institutional funding of scientific activities in the years 2013, 2014 and 2015* In accordance with the *Decision on assigned multi-annual institutional funding of scientific activities for the period 2013 – 2015*, which was adopted at the session held on 6 June 2013, the Government shall provide funds in the state budget for the stated period. Funds are allocated according to the standards and criteria for monitoring of scientific research success in public universities and in public research institutes in the Republic of Croatia.

In order to ensure maximum comparability of institutions in the same field of science, and by taking into account the specificities of certain scientific fields, there are benchmarks and criteria determined for monitoring of scientific research activity efficiency at all Croatian universities. These standards and criteria refer to the following categories:

- publishing (ponder 60)
- projects (ponder 30)
- mobility (ponder 5)
- popularization of science (ponder 5).

Since these elements are also the basis for the positioning of the University in the international research area, the University of Osijek should be compared with other Croatian universities, but also with foreign universities and should strive to achieve the best possible position.

Strategic aim 2.:

To profile the University as a research university as of the criterion of scientific excellence. To participate in the establishment of criteria and measures to encourage and reward excellence in research within cooperation with other Croatian universities. In this sense, the quality of scientific research shall be brought to the higher level, where cooperation between scientists from different constituents of the University shall be emphasized. This Strategic aim is specified in the stated tasks related to papers, projects and postgraduate doctoral and specialist studies.

III.2.1. Scientific papers

Publication of results of scientific research should be given maximum attention, because positioning of the University and its ability to win research and other projects in the international research area largely depends on those criteria. The results of scientific research are published in books, scientific journals and proceedings of scientific meetings. In doing so, special attention must be given to publication in the highest quality international scientific journals. In accordance with the accepted criteria and standards, relevant databases are Web of Science (WoS) and SCOPUS. With this respect, the positioning of the University of Osijek can be viewed on the basis of data and trends in the past 5 years.

| STEM area | ETF | GF | MEF | PF | PTF | SFSB | BIO | FIZ | KEM | MAT | FOOZ | FF | UNIOS |
|---------------------|-------|------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-----|-------|
| FTE | 40,25 | 29,4 | 48,25 | 85,25 | 45,5 | 27,25 | 17,4 | 6,25 | 10,5 | 16,75 | 1,5 | 2 | 330.3 |
| Papers average | 22.6 | 11.8 | 86.66 | 32.14 | 24.5 | 32.6 | 21.09 | 8.19 | 10.39 | 17.37 | 1.2 | 0.4 | 269.8 |
| Average annual rate | 1.4% | 3.2% | -4.4% | -20.6% | -1.7% | -9.3% | 11.7% | -0.8% | 0.2% | 1.4% | -8.4% | - | -2.8% |
| Citation average | 56.8 | 10.8 | 305.8 | 294.6 | 281 | 69.6 | 124.8 | 34 | 61.8 | 60.8 | 0 | 0 | 1014 |
| Average annual rate | 28% | 42% | 10.7% | 11.8% | 16.9% | 25.1% | 21.2% | 10.2% | 23.8% | 39.4% | -8.4% | - | 18.7% |

Table 2.1.

In the Table 2.1., there is an overview of decimal number of scientists as full-time equivalent (FTE) for each University constituent and their scientific productivity in the field of natural, technical, biotechnical and biomedical science (STEM) from 2009 - 2013. Productivity is measured by the average number of papers published in journals indexed in WoS in this period and the average number of citations from 2009 - 2013 for papers written at the institution, irregardless of the year when the cited paper was published. In accordance with the adopted principles, there were only papers considered that were categorized as an *article* and *review*. Each category indicates an average annual rate of change (increase or decrease), which shows the tendency at University constituents in the observed period.

| Social Sciences and Humanities | EF | FF | KBF | PF | PRAF | FOOZ | KULT | UA | GF | FIZ | UNIO S |
|--------------------------------|--------|--------|--------|--------|-------|-------|-------|--------|-----|--------|--------|
| FTE | 44.4 | 77 | 14 | 10 | 33 | 19 | 6 | 4 | 2 | 1 | 211.4 |
| Papers WOS/FTE average | 2.2 | 9.5 | 1 | 0.4 | 0 | 3.7 | 0.2 | 0 | 0 | 0 | 16.8 |
| Average annual rate | -52.4% | -7.25% | -39.4% | - | 0% | 0% | - | 0% | 0% | 0% | -11.4% |
| Citation WOS average | 31 | 54.4 | 0 | 0.8 | 0.8 | 1 | 0 | 0 | 0 | 0 | 88 |
| Rate | 8.8% | 4.4% | 0% | -62.3% | -26% | -7.5% | 0% | 0% | 0% | 0% | 4.8% |
| Papers SCOPUS/FTE average | 5 | 12.6 | 3.2 | 1.4 | 1.6 | 1.4 | 1.2 | 0 | 0.8 | 1.2 | 27.6 |
| Average annual rate | 3.4% | 11.9% | 48% | 0% | 5.2% | 0% | 68.5% | 0% | 0% | 4.7% | 14.1% |
| Citation SCOPUS average | 24.2 | 53.6 | 0.6 | 0.2 | 2.4 | 1.4 | 0 | 0 | 0 | 0 | 82.4 |
| Average annual rate | 14.1% | 8.5% | 0% | 20% | -7.3% | 85.6% | 0% | 0% | 0% | 0% | 10.5% |
| Papers for advancement | 77.3 | 142.7 | 24.2 | 17.4 | 81 | 51.6 | 13.4 | 15.6 | 5.4 | 1.4 | 430 |
| Average annual rate | -5% | -3.9% | -15.8% | -20.3% | 11.5% | -8.1% | 19.8% | -14.4% | 0% | -29.5% | -2.3% |

Table 2.2.

Analog to that, the Table 2.2. presents the decimal number of scientists as full-time equivalent per constituents and their scientific productivity in the field of humanities and social science (DH) from 2009 - 2013. Productivity is measured by the average number of papers that are published in journals indexed in WoS and SCOPUS during the mentioned period and by the average number of citations in these databases from 2009 - 2013 for papers written at the institution, irregardless of the year when the cited paper was published. In accordance with the adopted principles, there were only papers considered that were categorized as an *article* and *review*. Average number of papers is also listed for the period 2009 - 2013, which are acknowledged in the procedure for advancement into scientific titles according to the *Regulations on the conditions for the election into scientific titles*. .. Each category indicates an average annual rate of change (increase or decrease), which shows the tendency in the observed period.

The presented procedure enables comparison of scientific productivity at the University of Osijek with the scientific productivity at other Croatian universities. The analysis of the data and comparison with the corresponding data provided by other Croatian universities clearly indicated the strategic Task referring to the increase of published papers, as specified in the Task 2.1.

Task 2.1.

In order to achieve the *strategic aim 2*, special attention should be given to the quality and quantity of scientific papers at the University. In the next period, each year every University constituent involved in the STEM area, should strive to achieve the greatest possible number of published papers cited in the WoS, which will be at least the same as the number of FTE, and University constituent involved in the STEM area Social Sciences and Humanities should strive to achieve the greatest possible number of published papers cited in databases WoS or SCOPUS, at least the same as the number of FTE.

At an international level, there are several scientific groups that study certain issue, as for example the CMS Collaboration (CompactMuonSolenoid), CERN, which brings together 2,886 scientists from 228 institutions from 42 countries, including Croatia represented through scientists from the University of Split and from the Ruđer Bošković Institute. The group annually publishes 130 to 150 papers that achieve very high citation (for example, the paper of *CMS Collaboration, Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC, PHYSICS LETTERS B 716 (2012) 30-61*, was cited 1089 times by the end of 2013). Similar groups are MAGIC Collaboration (with 186 scientists from 24 institutions), ALICE Collaboration (1200 scientists from 131 institutions in 36 countries). Scientists from the University of Osijek should join an international scientific group and in this sense the following Strategic aim can be defined.

Task 2.2.

Develop a database of scientific and professional papers published by teachers and associates of the University of Osijek to be regularly updated every 3 months.
The database should be public and accessible to a wider range of scientists.

Task 2.3.

In the next five years, scientists from the University should join at least one international scientific group.

Task 2.4.

To establish a database of scientific and professional journals published by the University constituents and to achieve a better international status of particular journal. To encourage the exchange of our journals with similar journals from other universities in the world.

Such a database has been launched at the web page of the University News and has been regularly updated. Achieving a better international status of University journals can be reached by involving them in important international databases, such as Web of Science (WoS), SCOPUS and similar, and by monitoring quality

indicators (Impact Factor, acceptance rate, H-index, etc.). In this way, better image of the University will be systematically created. In addition, through international exchanges with other similar journals in hard-copy or in electronic form, there will be useful links established between universities to contribute to creation of good cooperation in preparation of joint papers, projects and academic exchanges.

III.2.2. Projects

Projects will be monitored within the following three categories:

- internationally competitive scientific projects
- nationally competitive scientific projects
- projects in cooperation with the economy sector (including international projects), with state administration and local self-government units, with civil sector and non-governmental organizations.

Each constituent will be monitored in terms of implemented projects per category and their financial value as related to the FTE of the respective constituent.

III.2.2.1. Internationally competitive scientific projects

There are projects observed within the FP7, ESF, Horizon 2020, and other projects that have scientific importance and purpose. As presented in the table about the scientific success of the University of Osijek (<http://www.unios.hr/~albert/financiranje/index.php>), we can not be satisfied either with the number of internationally competitive research projects, or with their financial value in STEM area at the University of Osijek in the period from 2009 – 2013. Significant number of such projects in the past period was recorded by the Faculty of Medicine, then by the Faculty of Agriculture and the Department of Mathematics.

The situation is similar in the Social Sciences and Humanities, where internationally competitive scientific projects have been realized only by the Faculty of Social Sciences and Humanities and by the Faculty of Law, with relatively low financial value. The relatively low financial value of these projects is a result of, among others, our relatively low salaries if compared to salaries in other EU countries.

III.2.2.2. Nationally competitive scientific projects

These projects are funded by the Croatian Science Foundation (CSF) and by the Fund Unity through Knowledge (UKF). As presented in the table about the scientific success of the University of Osijek (<http://www.unios.hr/~albert/financiranje/index.php>), nationally competitive scientific projects in STEM area at the University of Osijek in the period 2009–2013 were implemented at certain University constituents, but their financial value was relatively low (half of the values of internationally competitive research projects).

In the period of 2009 – 2013, in the Social Sciences and Humanities at the University of Osijek, the number and value of national competitive research projects was negligible.

Task 2.5.

To establish functional institutional system for supporting applications to program and funds of the European Union, as well as to provide logistic support for realization of international projects, especially for those realized within programs and funds of the European Union.

This system could be implemented through the Office for programs and projects of the European Union, which would carry out the following tasks: preparation, planning, implementation, monitoring and evaluation of programs and projects financed from the European Union funds and other international

sources of funding, and in particular, following the announcements of EU calls and preparation of project proposals for application to specific calls; cooperation with the institutions responsible for the implementation of programs and projects of the European Union in the Republic of Croatia and in the European Union; activities related to conclusion of partnerships within programs and projects funded by the European Union, as well as other forms of cooperation aimed at use of funds from the European Union, and other activities in accordance with regulations.

Tasks ureda:

- activities related to regular following of call announcements, collection and processing of data on policies, general decisions and strategic guidelines of the European Union in order to continuously follow programs and funds of the European Union, to follow other international calls for funding of projects, to get information about legal acts of the European Union and to present them to University bodies and University constituents;
- organization of training for staff dealing with issues of project management funded by programs of the European Union,
- establishment and coordination of projects with European institutions, state and other bodies in charge of EU business, development of cooperation with other offices for programs and projects of the European Union at other universities, regional associations, international and other organizations, as well as conclusion of partnerships and University network building
- gathering of information about needs and project ideas at the University level, planning and preparation of project proposals for application to the calls of programs and funds of the European Union;
- administrative, professional and other work related to realization of projects co-funded by the European Union and other international sources of funding;
- provision of technical assistance to University constituents in the preparation and implementation of projects, in receiving information and documentation about all projects of the University related to the use of funds, to monitoring and analysis of project implementation dynamics and project evaluation;
- gathering of information about acts and regulations of the Republic of Croatia and of the European Union that are related to the use of EU funds and cooperation with the University authorities and creation of reports for each stage of project preparation and implementation.

Task 2.6.

To increase the number of national and international research projects by 20% on average annually.

III.2.2.3. Projects with economy sector, state administration, local self-government units, civil sector and non-governmental organizations

As presented in the table about scientific success of the University of Osijek (<http://www.unios.hr/~albert/financiranje/index.php>), we can be satisfied with the number and with the financial value of those projects in the STEM area at the University in Osijek in the period 2009 – 2013. Faculties of Agriculture, Mechanical Engineering and Electrical Engineering are the best when speaking of such projects.

A relatively small number of such projects, with lower financial value, is observed in the Social Sciences and Humanities. It should be noted that twice as low coefficients and generally lower budgets are applied for projects in the Social Sciences and Humanities. However, significant activity of the Faculty of Economics should be mentioned.

In order to maintain or improve the existing results, it will be necessary to take into account some activities. For example, it would be useful to invite businessmen to defenses of doctoral dissertations, scientific colloquia, etc. in order to inform them about methods that are being developed at the University and to jointly define ideas about joint projects. Also, it would be useful to include alumni of the University in these activities through Alumni clubs at University constituents.

Task 2.7.

To increase number of projects in the STEM area by 10% annually, and in the Social Sciences and Humanities by 20%, as well as to increase financial value of projects with the economy sector, state government and local self-government units, with civil sector and non-governmental organizations.

Task 2.8.

To prepare information system about active national and international projects, and open calls.

III.2.3 Licenced software

An important precondition for ensuring the implementation of the defined tasks for scientific research activity is to purchase appropriate licensed software. Basic software systems are provided by MSES through cooperation with Microsoft. Other specialized software (STATISTICA, Ephorus - a software package designed for institutions to check the authenticity of student work - detecting of plagiarism, Mathematica, MatlabClassroom, MatlabConcurrent, CorelDraw, AdobeCreative Suite, Microsoft Dreamspark Premium, etc.) should be provided by public procurement at the University for the use of all University constituents. It will be assured that efficient use of those software is applied and at the end of each academic year, the University constituents will be required a report on software applications. In this regard, the University will organize free courses for software applications, and other scientific bases, the use of which is financed by MSES.

Task 2.9.

At the University, standard licensed software and specialized software are in use (Statistica, Wolfram Mathematica, Matlab, Ephorus, Visual Studio, AdobeCreative Suite, CorelDRAW Suite).

Task 2.10.

At the University, there are courses organized to train staff on the use of licensed software and scientific bases, and the portal University News shall regularly publish the information about the same.

III.2.4. Young researchers

In 1991, the Ministry of science, education and sport established a system of supports for young scientists by employing the best graduate students. Since then, systematic employment of young scientists is encouraged to introduce young people into science, with the basic purpose of achieving the academic degree of the Doctor science and of advancing to an independent researcher status. Recruitment of young scientists is approved within scientific projects funded by the Ministry of science, education and sport. Requests for employment of young scientists are made by principle researchers at higher education institutions, public institutes and other scientific and research institutions that are recorded in the Register of scientific organizations at the Ministry of science, education and sport.

In 2010, the Ministry of science, education and sport reached the *Decision on repealing the call for proposals for funding of collaborative research job positions for young scientists*. As that decision came into force all ranking lists, as well as individual requests for approval of new collaborative research job positions have been suspended.

During 2012 and 2013, the Ministry undertook certain activities to open new job positions for employing young perspective scientists in the system of science and higher education. Subsequently, public research institutes and public universities received a public call to propose employment of:

- research assistants who fulfill legal requirements for appointment into scientific title, and meet the specific criteria of excellence defined by public universities and public research institutes;
- staff in the title of assistant professor in the way that external cooperation becomes a scientific job position;
- new employees in the title of assistant;

- twenty best young scientists whose status of assistant professors at respective job positions expired in 2013, so that the Ministry commits itself to further fund salaries at the current level, and a higher education institution takes over the responsibility to pay the difference in salary.

In the academic year 2013/2014, scientific activity at the University of Osijek was performed by 69 young scientists.

Task 2.11.

Each year 30 job positions (1-3 per each University constituent) shall be opened for young scientists within scientific research projects or independent calls.

Task 2.12.

To take good care about young scientists.

III.2.5. Postgraduate study

III.2.5.1. University postgraduate (doctoral) studies

Postgraduate university (graduate) study refers to the highest level of formal education, and its purpose is to educate doctors of sciences, the process of which ends by defending of the doctoral dissertation based on original research. Doctoral education is important in development of an academic career, but it corresponds also to the growing demands on the labor market (economy, industry, business, public sector and others), that seeks for professionals who will contribute to creation of new knowledge, new products or new methods (research, manufacturing, etc.). At the doctoral level, along with research competences, PhD students develop skills that are used in jobs, such as communication and presentation skills, management of projects or teams.

At the University of Osijek, there are 18 doctoral studies organized in the scientific fields:

1. technical sciences (3): Faculty of Electrical Engineering (1): Electrical engineering with programs: Power Engineering, Communications and Information Technology; Faculty of Civil Engineering (1): Civil Engineering; Faculty of Mechanical Engineering (1): Mechanical Engineering with programs: Modern Production Processes, Modern Production Management, Design and Numerical Modeling of Products;
2. biomedicine and health (1): Faculty of Medicine (1): Biomedicine and Health;
3. biotechnical sciences (2): Faculty of Agriculture (1): Agricultural science with programs: Agricultural Economics, Animal Nutrition and Technology of Animal Feed; Hunting and Cynology; Plant Breeding and Seed Science, Livestock Breeding, Technical Systems in Agriculture, Plant Protection, Agrochemistry; Faculty of Food Engineering (1): Food Engineering;
4. natural science (1): Mathematics - joint doctoral program of the universities in Zagreb, Osijek, Rijeka and Split;
5. interdisciplinary STEM area: university postgraduate interdisciplinary studies (2): Environmental Protection and Nature Conservation, Molecular Biosciences;
6. social science (4): Faculty of Economics (2): Management, Entrepreneurship and Innovativeness; Faculty of Social Sciences and Humanities (1): Education and Culture of Modern Schools; Faculty of Law (1): Law;
7. humanities (2): Faculty of Social Sciences and Humanities (2): Linguistics, Literature and Cultural Identity;
8. interdisciplinary studies in the Doctoral School of Social Sciences and Humanities (3):
 1. Cultural Studies with programs:
 - Culture, Art and Literature in the European context with modules: Intercultural Philology in the European context, and Performing and Visual Arts and Culture in the European context.

- Information and Communication in Culture with modules: Information Sciences - Librarianship, Media Culture – Research into Media
 - Management in culture, Arts and Education;
2. European Studies;
 3. Communicology.

The University of Osijek is involved in the project *Modernization of doctoral education through implementation of the Croatian Qualification Framework* (MODOC), which aims to create basis for improvement of professional and personal competences of PhD students during studies, in line with current labor market demands with the purpose of career development outside of the academic community. The project coordinator is the University of Zagreb, and partners are University of Dubrovnik, Josip Juraj Strossmayer University of Osijek, University of Rijeka, Juraj Dobrila University of Pula, University of Split and the University of Zadar. Associate partners are Agency for mobility and EU programs, Croatian Employment Service and Young Scientists Network – MIAZ. The project *Modernization of doctoral education through implementation of the Croatian Qualification Framework* (MODOC) is financed by the European Union under the Operational Programme *Human Resources Development*, in the call *Further development and implementation of the Croatian Qualification Framework*. Project duration is 19 August 2013 until 18 February 2015

Task 2.13.

To support development of existing and organization of new joint postgraduate doctoral studies at the University, at the level of several Croatian universities or at international level.

Task 2.14.

Within the postgraduate doctoral studies, cooperation shall be realized between the University and the industry / economy sector.

Task 2.15.

Within the postgraduate doctoral studies, new skills and competences shall be developed and recognized outside of the academic community and at the labor market.

III.2.5.2 Postgraduate specialist studies

Postgraduate specialist studies are a part of the lifelong learning concept that ensures the acquisition of specialized knowledge, skills and competences, by taking into account the specific needs of the labor market. Postgraduate specialist studies last from one to two years, i.e. two to four semesters, and upon completion graduates are awarded the academic title of University specialist in a particular area.

At Josip Juraj Strossmayer University of Osijek, there are 28 postgraduate specialist studies in the following scientific fields:

- technical sciences (5): Faculty of Electrical Engineering (3): Process Computing, Advanced Communications Technology, Power Networks in the Region; Faculty of Civil Engineering (1) : Civil Engineering with programs: Earthquake Engineering, Construction management, Protection of Environment in the construction, Faculty of Mechanical Engineering (1): Development of Products and Technologies with programs: Materials Engineering, Modeling and Numerical Analysis of Structures, Application of Production Processes, Production Management;
- biomedicine and health (4): Faculty of Medicine (4): Clinical Epidemiology, Anesthesiology, Reanimation and Intensive Care, Ultrasound in Clinical Medicine - Cardiology, General Internal Medicine;
- biotechnical sciences (8): Faculty of Agriculture (5): Quality and Safety of Animal Products, Manufacturing Systems in Animal Breeding, Pig Breeding, Farm Management, Protection of

Plants; Food Technology (3): Food Safety and Quality, Technology of Traditional Meat Products, Nutrition;

- social sciences (8): Faculty of Economics (5): Entrepreneurship, Organization and Management, Management of Economic Development, Finance and Banking, Marketing of Special Areas; Faculty of Law (3): Management of Local and Regional Self-Government Development, Criminal Law, Human Rights;
- humanities (1): Catholic Faculty of Theology (1): Pastoral Theology with programs: Family Pastoral, Pastoral of Crisis Situations, Pastoral of Parish Community;
- interdisciplinary STEM area, postgraduate interdisciplinary specialist studies (1): Environmental Protection and Nature Conservation;
- interdisciplinary Social Sciences and Humanities, Doctoral School of Social Sciences and Humanities (1): European studies: Regional Cooperation and European Union Integration.

New specialist postgraduate studies are often not recognized at the labor market, so advertising activities are necessary in this respect.

Task 2.16.

To support development of existing and organization of new postgraduate specialist studies that ensure recognition of qualification in the national and European context.

III.2.6. Popularization of science

Popularization of science is one of the first steps towards competitiveness and development of the economy sector and of society as a whole. Popularization of science is aimed to raise the public awareness on the need to invest in science. The University of Osijek and its constituents are actively involved in popularization of science through numerous events such as: open days, scientific forums, conferences, workshops, trainings, forums, meetings, lectures, exhibitions, etc... In the period 2009 – 2013, University constituents participated in over 850 activities to promote science to the public and to present results of scientific research and technological achievements. In this way, general perception of scientists is improved in wider community and pupils and students are motivated to get actively involved in scientific research and to acquire new knowledge necessary to further their professional careers.

It is important to continuously produce high quality educational videos with the presentation of recent research results conducted at the University of Osijek. Videos may be in Croatian language, with subtitles in several languages and, as such, they could be used for the popularization of science at the international level.

In accordance with the standards and criteria for assigned funding of science, it is necessary to carry out each year a certain number of promotional activities (as defined by MSES), as follows:

(a) Popularization of science at international level: popular scientific lectures and workshops realized in cooperation with home and foreign scientists, and focused on wide public (excluding scientific congresses, meetings and schools).

(b) Popularization of science at national level: Festival of science (at the University), journals for popularization of science, educational projects in cooperation with elementary and secondary schools, cooperation within programs and projects for professional trainings with the Agency for Vocational and Adult Education, the Agency for Education and the Agency for Mobility and EU Programs, documentary movies and shows (continuous participation in the framework of one subject is counted as one activity) and other similar projects that popularize science (eg. Brain Week).

(c) Popularization of science at local level: Open days and other activities (eg. Biology Night, Magic in Chemistry, Researchers' Night, scientific colloquia and seminars, etc.) focused on promotion of science, lectures and debates that encourage dialogue between scientific community with the public about science, and scientific education in order to raise awareness on scientific matters; workshops for elementary and

secondary school pupils and students in order to popularize scientific education; workshops for scientific staff about teaching methods and ways to promote science.

Task 2.17.

Every year certain number of promotional activities shall be carried out at international, national and local level.

III.2.7. Centres of scientific excellence

Centre of scientific excellence is a scientific organization or its constituent part or a group of scientists that is among the best organizations or groups in the world within its scientific discipline (area) as referring to its originality, significance and relevance of scientific results.

Josip Juraj Strossmayer University of Osijek is situated in the rural region focused on agricultural production and food industry that are basic economic branches related to biotechnology and food safety, so for this reason it initiated the establishment of scientific center of excellence in food production, members of which are the Faculty of Agriculture in Osijek, Faculty of Food Technology Osijek, Agricultural Institute Osijek and the Food Agency located at the site of TEHNOPOLISA (the site of former BTZNC - Biotechnical Research and Teaching Centre in Osijek), as the main providers of research in the field of food production and processing. This creates prerequisites for development of new knowledge and new scientific excellence in the field of sustainable agriculture and production of healthy and functional food.

Joining of the Faculty of Agriculture, Faculty of Food Technology Osijek, Agricultural Institute Osijek and the Food Agency into the Center of excellence in food production will result in:

- stronger links between research groups and institutions with similar institutions and centers of excellence worldwide
- better transfer of knowledge in food production and processing
- intensification of interdisciplinary scientific and professional work
- optimal utilization of research equipment by integration of related scientific capacity between institutions
- the development of excellence in scientific research and strengthening of teams to prepare projects for funding from the EU funds.

Referring to the centre operations, particularly important would be linking and cooperation of scientific and educational institutions with agriculture and food industry in order to transfer and apply knowledge and technology acquired during many years of scientific research and professional work.

Synergism, as well as international competitiveness of scientific and professional work will be facilitated by integrating akin scientific capacity of research groups into the center of excellence.

The establishment of the center is in accordance with the strategic documents of the Republic of Croatia:

- *Strategy for Sustainable Development of Croatia*, adopted by the Croatian Parliament in February 2009. One of the goals in the Strategy is to increase sustainable agricultural production in Croatia.
- *Regional Development Strategy 2011 - 2013*, which determines strategic priorities for Pannonian Croatia as follows: (1) development of agricultural and food capacities and creation of local markets within the region; (2) networking of public, private and scientific sectors and cluster development; (3) establishment, modernization and networking of higher education institutions and companies (in the region of Pannonian Croatia, as well as with companies and institutions outside the region).
- *Strategic Plan 2011 – 2013* of the Ministry of Agriculture, Fisheries and Rural Development, which defines the “General aim 1. Competitive and sustainable agricultural and food sector and fisheries”.

III.2.8. Tera Tehnopolis Ltd.

Tera Tehnopolis Ltd. is a trade company with non-profit orientation. The company was founded in 2002 as a joint project of Josip Juraj Strossmayer University of Osijek, the City of Osijek and the Osijek-Baranja County.

Mission of the company is:

- technology transfer and commercialization of publicly funded research; areas of special interest are biotechnology, environmental protection, information technology, and projects aimed at developing the regional economy;
- incubation of technology-based firms and participation in technological restructuring of firms;
- development and consulting services for the regional economy and local government.

In practice, Tera Technopolis Ltd. performs work assigned to the technology transfer office, referring to business development and business incubator for projects that are of special interest to the University.

Task 2.18.

Continuous provision of information to the public about the activities of technology transfer office, business development unit and business incubator, and about projects of special interest to the University.

Task 2.19.

Education of scientific-teaching staff at the University about intellectual property rights.

Task 2.20.

Protection and management of intellectual property of the University.

III.3. INTERNATIONAL AND INTERUNIVERSITY COOPERATION

International and interuniversity cooperation at Josip Juraj Strossmayer University of Osijek realized within the bilateral agreements, in the framework of international university networks, international scientific and research and professional projects funded by the European Commission, cooperation at the level of University constituents and international activities of student associations.

Membership in international associations, such as the European University Association (EUA), the Alps-Adriatic Rectors' Conference and the Danube Rectors Conference (DRC), provides to the University of Osijek leaders an opportunity to actively participate in the work of international conferences related to the involvement of higher education institutions in European research area, and allows to the University of Osijek an international positioning and strengthening of international relations with emphasis on cooperation at regional level. In addition, for a better response to challenges of internationalization in general science and teaching, international activities of the University of Osijek are realized within mobility programs (Erasmus), by participation in international scientific research projects, and through activities of European studies.

Up to present, international and interuniversity cooperation at University of Osijek constituents clearly shows an increasing trend of international activities, and accordingly, inclusion in the European scientific and educational area. The University of Osijek has signed 42 international bilateral agreements with academic and research institutions from 17 countries. Each University constituent also realizes its own bilateral cooperation within separate agreements. Further expansion and strengthening of activities with international partner institutions in Europe and the world, and mobility of students, teachers and non-teaching staff within programs supported by the European Commission, are defined as priority areas in the development of international cooperation in the University of Osijek and are also determined as strategic objective.

The University of Osijek, as a holder of the *Erasmus University Charter* since the academic year 2008/2009 organizes mobility of students for the purpose of studying or professional practice or their combination, as well as mobility of (non)teaching staff for the purpose of teaching or professional training. These activities are implemented in cooperation with Erasmus coordinators at University in Osijek constituents.

Strategic aim 3.:

To establish functional international cooperation, especially with the European Union and with countries in the immediate environment, and to exchange experiences in teaching and in the organization of joint studies, to cooperate within projects and joint publication of scientific papers.

Task 3.1.

To renew partnership agreements on a regular basis, to create opportunities for new agreements, and in cases where cooperation is no satisfactory, propose termination of contracts.

Task 3.2.

To encourage mobility of teachers, students and non-teaching staff within bilateral cooperation, Erasmus+ program and other programs of the European Union with the aim to increase the outgoing mobility for 10% annually.

Task 3.3.

For each partner institution with which there is a formal cooperation agreement signed, at the portal of the University News information on current activities shall be regularly published.

Task 3.4.

To carry out activities referring to membership in the EUA, AARC and DRC and to join in some other important international networks and associations, such as the University Network of European Capitals of Culture (UNECC) and the European Association for International Education.

Task 3.5.

To develop cooperation with student organizations at the University in the area of their international activities. News will be published regularly at the portal of the University News.

Task 3.6.

The members of the *Erasmus Student Network* (ESN) shall be involved in the international activities of the University.

III.4. UNIVERSITY AND SURROUNDINGS

Osijek, as a university city and the largest city in eastern Croatia, defines its Strategy of development on a set of indicators that measure city performance, grouped in four dimensions of urban success: knowledge, innovation, connectivity and diversity. As a regional University, we have a special obligation to the city and the region in achieving the strategic plans recorded in the basic development documents of the Osijek-Baranja County, which will be used in the application for funding from national and international sources of funding.

Strategic aim 4.:

To develop as a regional University with a distinctive identity in narrow regional and wider national and European context. To develop partnerships and cooperation with local community (city and county government) in the regional surroundings. To develop cooperation with the economy sector and the civil sector to boost economic and regional development.

III.4.1. Regional context, interaction with community and role of the University in its surroundings

The University of Osijek is a public institution of higher education, which performs the scientific, artistic, and developmental research, realizes scientific programs of strategic interest for the Republic of Croatia, artistic creativity and professional work within undergraduate, graduate and postgraduate education. University realizes its tasks in accordance with the needs of the community in which it exists.

The impact of the University on the development of Eastern Croatia is based on education of professors, teachers, engineers in technical and biotechnical sciences, as well as economists, lawyers, doctors, theologians and artists. In the past thirty-four years, there were over thirty thousand students graduating from the University of Osijek, which is an exceptional contribution to social and economic development of Eastern Croatia. Activity of the University in Slavonia and in Croatia is important because of dispersion of scientific and professional work in the area of Eastern Croatia, as confirmed by contemporary trends in developed industrial countries.

One of the strategic goals of the University of Osijek is development towards regional university with distinctive identity in the narrow regional and wider national and European context. Likewise, the University should form partnerships and cooperation with local community (city and county government) in its regional surroundings, and in particular, it should develop cooperation with the economy sector and the civil sector to boost economic and regional development. The University should be recognized in the narrow regional and wider European context for its uniqueness (scientists, teachers, students) and shall keep its identity.

Consequently, the University activities are connected to the needs of its surroundings. Osijek University is the only University in the region of Eastern Croatia, which has about 900,000 inhabitants and covers an area of five counties, so it is important that the University and the county and city governments work together, especially in the education of highly professional experts with different academic profiles for the labor market.

In recent years, the University participated in establishment of new higher education institutions: University of Applied Sciences in Požega (1998), University of Applied Sciences “Lavoslav Ružička” in Vukovar (2005) and University of Applied Sciences in Slavonski Brod (2006), then in the organization of satellite university and professional studies in Vukovar and Slavonski Brod, and in the establishment of the College of Management in Tourism and Information Technology in Virovitica, which is important for the polycentric development of higher education in Eastern Croatia.

The University has satellite faculties outside its seat: Faculty of Mechanical Engineering in Slavonski Brod and the Catholic Faculty of Theology in Đakovo. Professional studies of the Faculty of Agriculture are carried out in Vinkovci and satellite teacher training study is organized in Slavonski Brod. This is also a contribution to higher education in surroundings and in the region in which the University operates.

The University Advisory Council is taking care about the University development and its interaction with the community in which it operates. It also discusses and confirms strategic and developmental decisions of the Senate in accordance with the Statute of the University. University Advisory Council consists of the University employees, representatives of the Ministry of Science, Education and Sports, representatives of

the Croatian Chamber of Commerce, a representative of the City of Osijek and a representative of the County.

In the Human Resources Development Strategy of the Osijek-Baranja County for 2011 - 2013, long tradition of higher education at Josip Juraj Strossmayer University of Osijek was stated as the County strength. Data collected for the purpose of the Strategy drafting indicate that every fifth resident of the city is a student at the University. Emphasis is put on the connection of the University with academic and research institutions, on the mobility of teachers and students, on experience in numerous research projects at national and international level, on up-to-date high-quality university study programs, high standard student accommodation, experienced staff in educational institutions and popularization of lifelong learning concept.

Task 4.1.

Promotion of the University as recognized part of regional, county and city identity. Intensification of cooperation with city and county government.

Task 4.2.

To establish an office for public relations that will present work and values of the University.

III.5. HUMAN AND MATERIAL RESOURCES

III.5.1. Human potential

Strategic aim 5.1.:

To care about teachers, associates and administrative and professional staff of the University, to support their development, education and quality of their knowledge and skills. To act towards the establishment of an optimal ratio of teachers and students, to achieve equal representation of teachers in academic titles and to provide for personal standard of staff and students.

III.5.1.1. University teachers and associates

In the academic year 2012/2013, ratio of teachers and students at the whole University was 1:19; ranging from 1:5 at the Academy of Arts in Osijek to 1:81 at the Faculty of Economics in Osijek. Balancing of that ratio shall be achieved through the increase in number of teaching staff, and through reducing the number of enrolled students in some studies. The *Plan of job positions in 2013, advancements and substitution at University constituents* was prepared and adopted at the 4th Senate session in the academic year 2012/2013, which was held on 25 February 2013.

III.5.1.2. Non-teaching staff

Based on the article 52 of the *Statute of Josip Juraj Strossmayer University of Osijek* and in accordance with the article 41 of the *Regulations on the selection of the scientific, scientific-teaching, artistic-teaching, teaching, associate and professional titles and corresponding job positions at Josip Juraj Strossmayer University of Osijek*, the Senate of Josip Juraj Strossmayer University of Osijek adopted on the 6th session in the academic year 2011/2012 held on 26 June 2012, the *Decision on changes and amendments to the Regulations on the selection of the scientific, scientific-teaching, artistic-teaching, teaching, associate and professional titles and corresponding job positions at Josip Juraj Strossmayer University of Osijek*.

Analysis of the structure of employees and a plan for rationalization and redistribution of non-teaching staff in the period 2013 - 2015 was completed on 30 September 2013. According to this analysis, in the total number of employees at the University, 66.11% are teachers and associates, 9.37% are laboratory assistants and technicians, 2.37% are librarians, 17.95% are professional and administrative staff, and 4.2% are technical and support staff. In order to balance the distribution of professional and administrative staff in the system, it is possible to redistribute professional and administrative staff, basis of the Agreement on the transfer, to specific University units at which there is a lack in professional and administrative staff.

Task 5.1.

Systematic monitoring of demands for human resources and projections of demands for the development purpose.

III.5.2. Material resources

Strategic aim 5.2.:

Analysis of existing financial conditions, detection of critical costs at each constituent (location, type, time of occurrence of the cost). Systematic monitoring of income from its own activities.

The currently applied method of financing the University by the Ministry has become questionable, because income from the state budget is constantly decreasing, while expenditures for salaries and material costs are constantly rising. It is therefore necessary to optimize the organizational model and business at the University.

Constituents that cannot be financed in this environment must find a new way of funding to increase the level of their income and to reduce material costs. These two fundamental objectives can be achieved by reducing material costs: energy, communication services, maintenance costs, etc., and to optimize scientific research by sharing laboratories, software packages and computer equipment, etc.

Basis for entrepreneurial activity must be related to the amount and structure of their own income, and the amount and structure of material costs. All amounts within one constituent unit shall be monitored through precise parameters - indicators, which are defined by law and other acts as a way of measuring the increase in the level of own income and reduce of material costs.

Indicators of entrepreneurial activity are closely linked to the amount of own income, and incurred losses must be detected by place and time. The law allows entrepreneurial activities through companies with strict control of income and costs by the company.

Program contracts (PC) suppose financing based on results, i.e. inflow of funds depends on the results: reaching of goals, outcomes and impacts, not on costs of activities. By using such model, user of the service transfers to service provider rights on strategies and activities, and the potential for reward or compensation, which depends on the reaching or failing to reach set aims.

Program contracts are intended to fulfil national aims in the field of higher education by stimulating universities. They should also stimulate institutional strategic planning and profiling of the University. In other words, the program contracts assume a role of coordinator between national and institutional strategies. Everything is supported and encouraged by linking funding with fulfilling of aims. Program contracts have clear and measurable objectives. They promote dialogue between the Ministry of Science, Education and Sports and the University at the level of aims and outcomes, thus replacing traditional mechanisms of management that were related to the input data. The second task is to legitimize spending of public funds through transparent criteria for funding.

Strategic basis of program contracts is made on negotiations between the Ministry and the University about the objectives. Objectives are agreed by both sides. The Government adopts a national strategy for higher education and defines general objectives within the contract validity. The University adopts its institutional strategy and defines its aims. The national strategy sets the boundary conditions within which each university positions itself. Even if there is no national strategy and a clearly defined mission, the negotiation process can begin by defining strategic orientation for the contract validity. The general strategy of higher education and mission of the university can be further developed parallel in order to define long-term aims.

European experience with program contracts point out the following preconditions for the University:

- **Strategy:** Explicit terms of the University as a whole referring to aims, strategies, priorities for the future. "Explicit" means a common strategic document based on formal decisions, which is documented. For the approval, there is strategic positioning about objectives required by the University and by the Ministry. The Ministry should ensure basic direction in terms of national priorities and determine the type of general framework for the institutional strategy. It is not necessary to determine the details. In a situation where there is no developed national strategy, it is enough to say something about general priorities for the upcoming period covered by the contract. This should be done by the Ministry, parallel with preparation of guidelines
- **Internal processes:** the University needs internal processes for discussion and decision making about the aims of the University as a whole. It should make the objectives from the analysis of advantages and disadvantages and of the internal mechanisms of negotiations.
- **Internal structure:** Internal structure must promote the realization of University objectives, for example, the management structure should enable effective decision-making about strategies of the University, structure of financing should allow connection between internal funding resources and the planning and realization of objectives, structure of support should be aligned with the University aims.
- **Empowerment:** Planning and realization of the Strategy is main responsibility of the University management. Internal processes, structure and practice shall guarantee for the empowerment of the University management. Empowerment includes decision-making powers, financial discretion, ability to determine plans and deadlines, etc.
- **Participation / communication:** All developments in the strategic objectives of the University do not work without the participation and internal communication. If strategic plans are based on 'lonely decisions' by University authorities, it will be difficult to achieve the effects of these strategies at the University. Participatory processes must achieve entering into contracts and must make a commitment (not to lead to blockage; participation shall not be done in a way to prevent decision-making). Within the University, there shall be the need accepted to follow the overall institutional strategy.
- **Data:** For program contracts, clear measurement of aims shall be provided. The University must create instruments for data collection and processing in order to enable measurement and control of aims.
- **Human resources:** The University is in need for the staff with the ability to manage higher education, to work with the instruments and processes of strategic management and with the instrument of program / target contracts. This requires knowledge of technical instruments and relevant skills for managing and promoting the process of organizational development. However, such experts are not needed just for new tools, but also within the University there is need for broad understanding of the new approach to management.

Based on these criteria, it is clear that there are contradictions in the implementation of preconditions. For example, there is a counter-balance between empowerment and participation. This means that it is important to keep the balance in the creation of appropriate prerequisites a sensible top-down and bottom-up approach to processes is needed, where, on the one hand, the Rectorate could establish a plan, make final decision

and grant funds internally as of the objectives and where, on the other hand, faculties and other relevant internal stakeholders would be adequately involved in the drafting of contracts.

In order to rationally use funds from the state budget, in July 2013 the Ministry of Finance issued the new *Regulations on internal audit of budget users* (OG 96/13), in which there is a procedure for establishing internal audit at universities. On 28 January 2008, the Senate of Josip Juraj Strossmayer University of Osijek, adopted the decision on the establishment of internal audit, which was established as an independent department of internal audit at the highest organizational level, in accordance with articles 17 and 21 of the *Act on internal financial control system in the public sector* (OG 141/06) and articles 4 and 8 of the *Regulations on internal audit of budget users* (OG 96/13).

Internal revision is part of a comprehensive system of internal financial control in the public sector. The purpose of internal audit is to provide a reasonable level of security to the management of state funded institutions and to assure them that implementation of management and control mechanisms is appropriate, cost-effective and in line with widely recognized standards and national legislation.

The scope of internal audit includes all processes and activities of budget users at all levels of management responsibility. Internal revision examines, evaluates and reports on the control and thus contributes to the proper conduct of business, economical and effective use of resources and achievement of organizational aims in relation to the standards of business performance and business improvement.

Task 5.2.1.

Systematic increase of income from projects financed by EU funds.

Task 5.2.2.

Permanent increase of income from commercialization of research results.

Task 5.2.3.

Increase of income from professional services and other external funding.

III.6. RECONSTRUCTION AND DEVELOPMENT OF THE UNIVERSITY

III.6.1. Phase 1 of construction of Josip Juraj Strossmayer University of Osijek

The program of reconstruction and development Josip Juraj Strossmayer University of Osijek until 2010 of 18 March 1999 was a document that referred to long-term University development on three main locations: Tvrđa, the former barracks “Drava” and barracks “Gaj”, and development of the Faculty of Mechanical Engineering in Slavonski Brod.

In previous academic years, with funds from the state budget the following buildings were restored: the building of the Faculty of Law Osijek, part of the building of the Faculty Food Technology in Osijek, Faculty of Mechanical Engineering in Slavonski Brod. The dormitory in Slavonski Brod was also built. In 1998, new building of the Faculty of Medicine in Osijek was built, the funding for which was provided by the Ministry of science and technology, the Osijek-Baranja County and the City of Osijek. Large investment was also made in the building of the Faculty of Electrical Engineering in Osijek.

On 25 March 1997, the Ministry of Defense, the Ministry of Education and Sports, the Ministry of Interior Affairs and the Osijek-Baranja County signed the Agreement on the transfer of rights to use and convert the barracks for the needs of Josip Juraj Strossmayer University of Osijek, thus providing for the basic conditions for reconstruction and development of the University. Realization of the University strategy was based on the renovation and construction of university premises in two phases.

In January 2002, the University management prepared a study *Program of capital investments for the construction and reconstruction of the University*, which envisaged the construction of a new building of the dormitory, the Faculty of Agriculture in Osijek on the location of the barracks “Drava”, renovation of the barracks “Gaj” for the purpose of university departments of mathematics, physics and biology, renovation of the building of the Faculty of Food Technology Osijek for purposes of that faculty and the Department of Chemistry and annexing of the building of the Faculty of Economics in Osijek. The value of works for Phase 1 of construction and renovation of the University was 180,000,000.00 HRK, which were secured by a long-term loan with foreign currency clause No. 1/2002 with Slavenska Banka d. d. Osijek, signed on 12 July 2002.

In that period intensive works started on the renovation of former military area “Gaj”, which lasted from 2002 to 2005. The academic year 2004/2005 the University departments of physics and biology started in a completely renovated building. Adaptation and equipping of the building were financed from the loan in the amount of 9,380,619.00 HRK. The building already housed the Department of Mathematics and Technology Development Centre (now Tera Technopolis Ltd.).

Due to problems with student accommodation, which was lacking investments more than 40 years, and given the fact that about 65% of students are residing outside of Osijek, the first new building in the university campus was a new dormitory (with net area of 9,909.00 sq.m.). The project was created by Arvumteh Ltd. Osijek, and the contractor was Gradnja Ltd. Osijek. Construction began on 20 December 2002 and ended on 31 May 2005. Costs of designing, archaeological works, construction and equipping amounted to 64,180,970.00 HRK allocated by the loan and by the state. Dormitory is located on the west of campus and disposes of 504 beds, of which 10 single and 233 double rooms for students and 7 apartments for visiting lecturers. Students have moved into the new dormitory in the beginning of the academic year 2005/2006.

Designing of the new building of the Faculty of Agriculture in Osijek started in 2002 by signing of the contract with the company Rechner Ltd. on preparation of project documentation. Location of the new building of the Faculty of Agriculture in Osijek is in the west of the campus, at a plot is reserved for construction of higher education institutions according to the Urbanistic Development Plan (UDP). In May 2003, the company Zorty from Ljubljana performed geophysical studies of the site, based on which there

were the remains of ancient Mursa detected. Archaeological excavations were carried out on an area of 6,500.00 sq.m. and lasted from August 2003 to September 2005. Findings of valuable ancient architecture were conserved and planned to be displayed on the ground floor of the Faculty of Agriculture in Osijek. In January 2006, the contract on designing of the main plan for the Faculty of Agriculture in Osijek. Total gross building area is 21,079.86 sq.m., of which 3,410.70 sq.m. refers to the surface of the archaeological site. The project documentation was completed in 2007, and the construction was entrusted to the company Gradnja Ltd. Osijek based on a contract signed on 18 January 2008. The building permit was issued on 19 May 2008, and expert supervision was agreed with the company MHM - Inženjering Ltd. in April 2008, the value of which was 1,085,800.00 HRK, VAT included. The loan for the financing of Phase I of construction of the University campus provided 84,500,000.00 HRK for the building of the Faculty of Agriculture in Osijek.

Works on reconstruction of the building of the Faculty of Food Technology Osijek in Kuhačeva 18-20 began in 2002. Planned completion of works was delayed due to damage that occurred in January 2006 on the central heating system. Adaptation continued during 2007 and 2008. Financing was provided mainly from funds from the loan with 13,211,901.60 HRK reserved for the mentioned building.

Works on annexing the building of the Faculty of Economics in Osijek started in March 2003. Funding was secured from the loan with the Slavenska Banka d.d. Osijek, as mentioned above. The values of works was 9,945,702.00 HRK. Works were completed at the end of 2004, and teaching in the new premises started in the fall of 2005.

III.6.2. Phase 2 of construction of Josip Juraj Strossmayer University of Osijek

Strategic aim 6.1.:

Completion of the Phase 2 of the construction and renovation of University campus until the end of 2016

The Senate of the University adopted on 17 July 2006 the document of the program of capital investments entitled *Osijek University Campus: Study on the justification of capital investment program – Phase 2 of the Campus construction phase*.

Based on the consent of the Croatian Government and the Ministry of Science, Education and Sports, the University has closed a *contract on financing the construction of Phase 2 of Josip Juraj Strossmayer University of Osijek Campus* within the Slavenska Banka d. d. Osijek on 24 October 2007. Due to delays in project investments, the Ministry of Science, Education and Sports approved signing of the annex No. 1 to the contract on the loan between the Hypo Alpe-Adria-Bank d. d. and Josip Juraj Strossmayer University of Osijek, which extends the loan validity period to 31 December 2014

The Phase 2 of the University campus construction refers to continuation of building and equipping of the new building of the Faculty of Agriculture in Osijek, renovation of buildings of the Faculty of Education and Faculty of Medicine in Osijek, equipping of the buildings of the Academy of Arts in Osijek, equipping of the building of the Faculty of Electrical Engineering in Osijek and Carnet, equipping of the building of the student restaurant, renovation of the building for university departments: the Department of Biology and Department of Chemistry, and construction of new buildings of the Faculty of Civil Engineering in Osijek and the University Library.

The Phase 2 also refers to the adaptation and arranging of necessary infrastructure of buildings for new Office of Science, Office of Technology Transfer, Office of Quality Assurance (now the Center for Quality), Office for students with disabilities, the new Office of Student Union. The loan provided funding for equipping of the building of Faculty of Food Technology in Osijek and the construction of new building of the student dormitory in Đakovo.

The Phase 2 of the University construction refers also to continuation of equipping of the building of the Faculty of Agriculture in Osijek by providing funds in the amount of 107,209.684.00 HRK. The foundation stone of the new building of the Faculty of Agriculture in Osijek was laid down on 28 May 2008 at the ceremony of Dies Academicus of the University of Osijek. Works on the building lasted until September 2011, and the occupancy permit was issued on 23 September 2011. On the 10 October 2011, the building was opened. The facility is equipped with laboratory, office and school furniture and equipment. The plan is still remaining to open the atrium in which the archaeological site will be presented.

Adaptation of the buildings of the Faculty of Food Technology in Osijek continued until 2011 with restoration works, repair of roof, arrangement of interior courtyard and purchase of equipment. The loan provided funding in the amount of 5,500,000.00 HRK.

Catholic Faculty of Theology in Đakovo is a constituent part of the University since the academic year 2005/2006. At the Faculty, there are about 250 students, most of whom are non-residents of Đakovo. Therefore, it was necessary to provide students with appropriate accommodation in Đakovo. This problem is solved by building a new dormitory, which is located next to the Faculty. Net building area is 1,866.66 sq.m. and a gross area is 2,248.00 sq.m. The new dormitory disposes of 46 rooms with 94 beds. For the construction of new building in Đakovo funds were secured from the program of capital investments in the amount of 12,730,993.88 HRK. Conceptual, basic and detailed design was made by Architectural Studio Cvenić Ltd. in Osijek. The contractor for works was the company Dom Ltd. Darda, with which the contract was signed on 26 June 2009. The foundation stone was laid down on 2 July 2009 in the presence of numerous guests. Usage permit was obtained on 10 June 2011. Students moved into a new dormitory in Đakovo at the beginning of academic year 2011/2012.

The company Arp Ltd. Split was selected for preparation of preliminary architectural design of the Faculty of Civil Engineering in Osijek. Preliminary design was completed on 26 November 2008. In June 2009, a contract was signed on the preparation of the main and detailed design of the building of the Faculty of Civil Engineering in Osijek. The location permit was issued on 22 September 2010, and a confirmation of the main project was done on 30 August 2011. The foundation stone for the construction of a new building was laid down on 12 November 2011. Value of contracts done with the company Gradnja Ltd. Osijek for the first phase of construction was 34,950,528.82 HRK. Based on preliminary consent of the Ministry of Science, Education and Sports, there was a redistribution of funds made within the long-term loan, so for the construction of new building of the Faculty of Civil Engineering in Osijek the amount of 110,259,598.00 HRK was provided. In early 2014, public procurement procedure was initiated for the phase 2 of construction, and in July 2014 a contract was signed with Gradnja Ltd. to continue construction, which should last until the summer of 2015, after which equipping of the facility will be started to open the new building.

There were buildings adapted for the use by the Faculty of Education, namely the building No. 9 with an area of 2,300.0 sq.m. and building No. 6 with an area of 586.41 sq.m., and annexing of the building was also planned for the additional area of 4,000.00 sq.m. Due to the lack of financial means, annexing of the building No. 9 has been postponed for the Phase 3 of construction of the University campus in Osijek. For adaptation of buildings No. 6 and No. 9, the company Urbos Ltd. Osijek prepared conceptual designs and a contractor for adaptation works of both buildings was the company Dom Ltd. Darda. Values of work for the building No. 9 were 17,508,091.90 HRK and for building no. 6 4,191,811.49 HRK. The building no. 6 houses the dean's offices. The Faculty moved in the new buildings in October 2010. Adaptation and equipping of the building no. 9 was completed in February 2011 and the facility is in use since March 2011. Equipping of both buildings was conducted by the company Peruća Ltd. Osijek in total value of 2,191,310.19 HRK. The total costs for the preparatory work, archeology, construction, infrastructure and equipment of buildings No. 6 and No. 9 amounted to 31,793,052.54 HRK.

The building of the Faculty of Electrical Engineering Osijek was adapted in its interior, façade was renovated, as well as roof and electrical installations, and equipment was purchased for the classrooms, laboratories and offices. In the same building there is Carnet, as well as classrooms for distance learning. This is the fourth such classroom at the University of Osijek, along with existing one at the Faculties of Electrical Engineering, Mechanical Engineering and Faculty of Medicine, which are used for remote lectures in teaching process. For the renovation and equipping of the building of the Faculty of Electrical Engineering Osijek funding was provided by the loan in the amount of 14,562,087.79 HRK.

Within the university campus premises were given to the Academy of Arts in Osijek, in order to provide for artistic work of students at the same quality as at the rest of the University constituents. Academy of Arts in Osijek is housed in several buildings (No. 26, 25, 4, 22 and 17) in the university campus, all of which were adapted within the Phase I and put in use for arts teaching and artistic studies. In March 2010, project documentation was completed for decorating facades and attics of buildings No. 25, 4 and 26. Works were performed by the company Dom Ltd. according to the contract signed on 7 June 2010 with the amount of 8,848,376.61 HRK with VAT. Works on the building no. 25 were completed in March 2011, and on the buildings 26 and 4 in June 2011. Equipping of the building was realized with the company Peruča Ltd., according to the contract signed on 9 September 2011. The value of works on reconstruction and equipping of buildings was 13,290,240.43 HRK.

The University departments - the Department of Biology and Department of Chemistry were awarded the building no. 3 at the university campus as an estimated optimal solution for teaching purposes. The project documentation for renovation of the building no. 3 was carried out by the company ETZ d.d. Osijek. The process of public procurement confirmed the contractor for construction to be the company Gradnja Ltd. Osijek, and the value of contracted works amounted to 14,558,445.94 HRK. Works started in March 2010 and ended in October 2011. The premises of the Department of Biology and Department of Chemistry are equipped with laboratory equipment and office furniture in value of 4,000,000.00 HRK secured from the loan. Renovation and equipping of the building amounted to 21,172,877.70 HRK.

To ensure the quality of teaching and implementation of the Bologna process, the Faculty of Medicine Osijek was awarded the building no. 10 at the university campus. Preliminary design for adaptation was made by the company Arvumteh Ltd. Osijek, and the works were performed by the company Dom Ltd. Darda, while space is equipped with furniture purchased from the company Peruča Ltd. Osijek. For the reconstruction and equipping of the Faculty of Medicine in Osijek there was 7,957,249.29 HRK provided from the loan. Until provided funds for the long-term solution of workspace for the Faculty of Medicine Osijek, part of the space will be provided in the attic of the building no. 10 in the university campus. The project documentation was prepared by Trinas Ltd., and a contract for the works was signed on 6 September 2013 with the company Volko Ltd. Professional supervision was agreed with the company Respect-ing Ltd. The works on adaptation of the attic should be completed by spring 2015

The premises of the Office of Science, Office of Technology Transfer and the Office of Quality Assurance are provided in the building no. 8 at the university campus. The reconstruction was done inside the building, roof structure was renovated, inner and outer doors were changed, and façade was renovated. The works were performed by the company Dom Ltd. Darda. The works were completed in May 2010, upon which the facility was equipped. The building was officially opened on 4 May 2010. The total cost of the works and equipping was 2,117,456.62 HRK.

It can be said that the University campus, within construction and other works on the adaptation of premises into scientific and educational center of the city of Osijek, is undergoing a complete transformation. Partial changes refer to existing utility infrastructure, which often leads to damage of roads and pedestrian areas. Fence of the campus was damaged during the war, and exterior lighting is not done yet, so night communication is still difficult. During 2008 and 2009, installations of hot water and water supply network were renewed, and distribution and telecommunication infrastructure has been built. From September 2011 to April 2012, works were performed on reconstruction of sewage system, the values of which was

1,666,213.27 HRK including VAT, being performed by Vodovod Osijek Ltd. In December 2012 the contract was concluded with the company Dom Ltd. for works on landscaping of the eastern part of campus. Landscaping was done around the building of the Faculty of Education, Faculty of Electrical Engineering and Faculty of Medicine in Osijek, and around the building of the Office of Science and the Office for Quality Assurance, being completed in July 2013.

Student subsistence is organized in the existing building, which was the restaurant and kitchen of the Croatian Army. Adaptation and equipping of a new student restaurant, with the surface of 1.797.90 sq.m., began in December 2008 and was completed on 26 May 2009. Student restaurant was opened in academic year 2009/2010. The value of capital investments amounted to 20,557,535.54 HRK, of which the exterior decoration cost 14,438,536.96 HRK and remaining 6,118,998.58 HRK was spent on equipment purchase.

The building number 2 within the University campus houses the Office for students with disabilities and the Office of the Student Union, with an area of 230.00 sq.m. The works in value of 400,307.79 HRK were completed as planned and the facility was opened in July 2009.

The most important capital investment of the Phase 1 of Campus construction was the construction of the new student dormitory, with net area of 9.909,00 sq.m. Over the past 15 years, the number of students, in particular non-residing students, has greatly increased, so accommodation capacity at the University is sufficient for only 11% of the total number of students who need accommodation. Therefore, in 2012 preparatory works started to design and construct a new Student Pavilion, which would consist of a basement, four floors and an attic, with a gross area of 14,760 sq.m. and it would provide accommodation for 830 students, as well as necessary technical areas. On 10 September 2012, a contract was signed with the Museum of Slavonia for works on archaeological excavations at the site of the new Student Pavilion in the value of 1,652,637.50 HRK with VAT. In accordance with the Changes and Amendments to the General Urbanistic Plan of the City of Osijek, adopted in November 2012, it is necessary to announce an urban-architectural competition call for the pavilion plot. Preparation of project documentation is submitted to the program WBIF and application is accepted together with the project of new dormitory building of the University of Rijeka. Overall project coordinator is the Ministry of Science, Education and Sports.

Area for the new building of the University Library and Multimedia Centre (SKIMCO) is planned in the *Changes and Amendments to the Urbanistic Plan for construction of Josip Juraj Strossmayer University of Osijek - Lower Town*, adopted in December 2010. In 2011, the staff of the Museum of Slavonia carried out archaeological excavations on the plot, as of the contract from 31 May 2011. After obtaining the specific conservation requirements to protect immovable cultural property, on 30 July 2012 there was urban-architectural competition announced. Competition was announced by the Society of Architects of Osijek. On 24 October 2012 the Committee unanimously adopted a decision on the award-winning works. The first prize-winning work was conceptual design by the company SANGRAD Ltd. The contract for the project documentation in the value of 2,825,000.00 HRK with VAT, was signed on 20 December 2012.

Due to the lack of space on the plot intended for SKIMCO, parking space was moved out of the plot, which was not foreseen by applicable *Urbanistic Plan*. Therefore, the University administration and City of Osijek started the process to reach the *Changes and Amendments to the Urbanistic Plan for construction of Josip Juraj Strossmayer University of Osijek - Lower Town* which were adopted in July 2013. Simultaneous to the development of preliminary, main and construction project of the Library building, the company Rencon Ltd. began to design traffic and pedestrian areas around the building. Both location permits were issued in January 2014. Because of spatial solutions of the library, it was necessary to relocate the existing substation, so professional services of HEP-ODS Ltd. work on the design documentation for the new substation. For the construction of the first phase of the new building of the University Library in Osijek funding is secured in the program of capital investments from the loan in the amount of 55,302,658.00 HRK.

Task: 6.1.1.

To obtain approval of the main project for the construction of the SKIMCO building by the end of 2014

Task: 6.1.2.

To obtain approval of the main project for the construction of traffic and pedestrian areas around the building of SKIMCO by the end of 2014

Task: 6.1.3.

To finish works on the design of the arrangement of the attic of the building of Faculty of Medicine Osijek on the campus by the end of 2014

Task 6.1.4.

To complete the new building of the Faculty of Civil Engineering in Osijek until the end of 2015

III.6.3. Phase 3 of construction and renovation of Josip Juraj Strossmayer University of Osijek

Strategic aim 6.2.:

To redefine the program of capital investment for the Phase 3 of construction and renovation of the University in the project period 2014-2020 and to provide for its realization and monitoring.

The program of capital investments foresees the duration of Phase I of the building of University campus until 31 December 2015. Taking into account changes in the environment in connection with the methods and scope of funding, recommendations of MSES were given to revise project proposal for Phase 3 of campus construction and renovation, and to include it in the list of projects for funding. So there was analysis performed of the initial project proposal (as of the original version of the University Strategy from 2011), to make a new version that adapted according to the above conditions and project period duration from 2014-2020 - *Construction of the western part of Josip Juraj Strossmayer University of Osijek Campus*. In this sense, during the stated project period, a plan is to complete the new buildings of the Student Pavilion, University library and multimedia center (SKIMCO) and the Law Faculty in Osijek, along with landscaping, pedestrian, bicycle and traffic areas and construction of sports facilities in the western part of campus.

▪ **University library and multimedia centre (SKIMCO)**

University library system performs all library and information tasks and activities for educational and scientific research purposes of the University. It comprises all libraries at the University, and acts as a single communication centre. The building shall also house various multimedia facilities, as well as university radio and television, and the entire building is designed to be a “living room” of the University. The first phase of construction of the building will be financed from the remaining loan funds, while the completion of works shall be financed from EU structural funds, since it is planned in the mentioned project proposal *Construction of the western part of Josip Juraj Strossmayer University of Osijek Campus*.

▪ **Student pavilion**

The plot reserved for the construction of the Student Pavilion was a subject to archaeological research, which was completed in June 2013. A report *Protective archaeological excavation “Osijek, Barracks - Student Pavilion 2012-2013”*. The Ministry of Science, Education and Sports, as the end beneficiary concluded an agreement with the European Investment Bank in the amount of € 2,688,000.00 EUR for

financing of consulting services and preparation of project documentation for the purpose of infrastructure solutions for student accommodation at the universities in Rijeka and Osijek. The funds are specifically reserved for financing of technical assistance that includes supports for the main expert, for preparation of feasibility study, cost benefit analysis, tender documentation and necessary technical documentation.

▪ Faculty of Law Osijek

Construction of the new building of the Faculty of Law Osijek shall be built at the plot reserved for higher education institutions on which the Faculty of Agriculture and the Faculty of Civil Engineering has been built. The planned net area is about 7,000 sq.m. Before initiation of design and construction, it is necessary to carry out archaeological excavations to obtain special conditions of the construction issued by the Directorate for the Protection of Cultural Heritage of the Ministry of Culture. In the fall of 2014 a public call for tender was announced, and archaeological excavations began in November 2014, being performed by Pomet Ltd. and the Museum of Slavonia.

The new building of the Faculty of Law Osijek will become a central educational place for students and teachers in law profession in this part of Croatia and in the wider region. The new building will be educational centre that will primarily provide quality conditions for teaching and research in legal sciences to students and teachers, and will also promote all aspects of sustainability:

- energetic sustainability
- economic sustainability
- social sustainability.

Estimated value of construction and equipping is 58,000.000.00 HRK.

▪ Infrastructure

Josip Juraj Strossmayer University of Osijek took over the campus area of total 232,048.00 sq.m. with 37 existing facilities, to maintain the environment and buildings. Within the Phase 3 of the campus reconstruction, it is planned to demolish unnecessary facilities, to landscape the western part of campus (squares, walkways and traffic area) and to set up public lighting. According to the currently applicable *Urbanistic Development Plan*, underground garage shall be built beneath the northern square as there is not enough parking spaces on the ground, the University has initiated the new amendments to the UDP (as of May 2014) that would include:

- increase the number of parking spaces
- enabling delevelling of pedestrian crossing across the connecting road Hadrijanova – Vukovarska ulica
- integration of legalized buildings in the urban plan
- change of plots no. 18 and 20 into multi-purpose ones
- integration of existing plot of the new dormitory with the plot for the construction of the third pavilion, to connect all facilities into one unit.

▪ Sports area

On the campus there are two playgrounds (handball and basketball playground), which are temporarily converted from parking area into sports grounds and do not meet basic standards of facilities and equipment for physical education. Teaching within the course of physical education is carried out in rented facilities that, besides of the Sports Hall Gradski Vrt, often do not meet the basic criteria required for teaching.

In the first stage of solving this problem, construction of outdoor courts in the southern part of the University campus will be completed. According to the currently valid UDP, there are 6 courts for basketball / volleyball, three tennis courts and one handball court planned to be built. The total area of sports grounds is 10,908.00 sq.m. As it will be necessary to build also one football ground, the University will propose

amendments to the UDP to restructure the area into one playground for football, two grounds for basketball / volleyball, three tennis courts and one handball court. Before initiation of design and construction plan of sports grounds, it is necessary to carry out archaeological research.

▪ **Legalization of university campus buildings and residential buildings in the Vatrogasna street**

In accordance with the *Law on processing of illegally constructed buildings* (Official Gazette 86/12), the University administration initiated the process of legalization of buildings at the university campus and their registration in the land register. These buildings are planned for demolition as of the *Urbanistic Development Plan*: the building no. 18 - maintenance, building no. 31 - Student restaurant and building no. 17 - Academy of Arts in Osijek, section Sculpting. There were requests submitted for legalization of two residential buildings in the Vatrogasna Street 93 and 89. The project documentation was prepared by the company Respect-ing Ltd. Osijek. Buildings constructed at the archaeological site of Mursa - Lower Town were explored by archaeological probes to obtain the confirmation of the Conservation Department in Osijek that the buildings were constructed in accordance with specific conditions. The confirmation was submitted to the Administration of the City of Osijek, and it is expected that a decision on the derived condition shall be issued soon.

▪ **Rectorate**

The building of the Rectorate, except for the purposes of the Rector's Office, was used for many years by the Faculty of Agriculture in Osijek. After moving of the Faculty of Agriculture in Osijek in the new building in the university campus, some parts of the Rectorate building were given to the Department of Cultural Studies and to the Faculty of Food Technology Osijek, with which there was an agreement signed 24 May 2012 on payment of costs incurred for the use of those building parts. Due to changes in users, purpose and individual spaces has also changed. In September 2011, existing laboratory area was adapted, premises on the second floor were assigned to the student radio, premises were joined into large lecture halls, and remaining area was turned into office and teaching area to improve studying conditions. Contracts for works were signed with the company Dom Ltd. for repair and reconstruction of the Rectorate at the address Trg Sv. Trojstva 3, Osijek. The value of performed works amounted to 1,317,564.49 HRK including VAT.

Adapted premises were equipped with office furniture and computer equipment supplied by Peruća Ltd. and Pirini-Trade Ltd., in the value of 1,326,733.09 HRK.

During the winter season 2012/2013, there were damages occurring on roofs on Rectorate and on the Departments of Mathematics and Physics. In order to improve energy efficiency, a need occurred to change lighting in the Doctoral school and the Department of Cultural Studies. All these works were performed by the company Ukras Ltd. according to the contract of 22 July 2013, in values of 639,745.89 HRK with VAT.

The building of the Rectorate requires reconstruction of the courtyard facade and of the devastated external joinery. The windows on the courtyard facades are completely worn out, thus causing significant loss of heat energy, which is reflecting in the overhead costs.

In 2014, elevator was installed on the courtyard facade in order to ensure access for people with disabilities.

Task 6.2.1.

To perform detailed analysis of the possibilities to realize Phase 3 of the reconstruction and development of Josip Juraj Strossmayer University of Osijek with regard to financial, functional and other conditions, according to the current conditions.

Task 6.2.2.

Based on the analysis and the data collected, the Phase 3 of reconstruction and development of Josip Juraj Strossmayer University of Osijek shall be redefined as of the current project period (2014 - 2020).

Task 6.2.3.

To submit a project proposal of infrastructure projects for application to the European Regional Development Fund 2014-2020, and to include it in the indicative list of the Ministry of Science, Education and Sports.

Task 6.2.4.

To prepare documents related to changes and amendments to the urbanistic development plan to define landscaping of the plot sin the western University campus part.

Task 6.2.5.

To implement changes and amendments to the urbanistic development plan.

Task 6.2.6.

To monitor the implementation of preparatory activities as planned in the proposal of the structural project *Construction of the western part of Josip Juraj Strossmayer University of Osijek Campus.*

Task 6.2.7.

To prepare a project for landscaping of the western part of the campus.

Task 6.2.8.

To perform archaeological excavations on the plot of the building of the Faculty of Law in Osijek in the campus.

Task 6.2.9.

To carry out public architectural competition for the preliminary design of the new building of the Faculty of Law Osijek and to prepare technical documentation for the construction by the spring of 2016

Task 6.2.10.

To perform archaeological excavations within the University campus for the purpose of arranging pedestrian and traffic areas and for the purpose of obtaining a decision on the derived condition.

Task 6.2.11.

To obtain a decision on the derived condition of the buildings of student restaurant and kitchen, maintenance, Academy of Arts in Osijek and residential buildings in the Vatrogasna Street.

Task 6.2.12.

To equip and open the building of the Faculty of Civil Engineering in Osijek.

Task 6.2.13.

To coordinate and perform activities for construction of the Student Pavilion (WBIF grant).

Task 6.2.14.

To install outdoor elevator on the courtyard facade of the Rectorate and protect windows and courtyard facades.

III.6.4. Preparation of project proposals for capital investments in the forthcoming project period

Strategic aim 6.3.:

To undertake preparatory actions and prepare technical documentation for capital investments in the forthcoming project period.

As funding for capital investments can be provided through projects financed from EU funds, it is essential to prepare appropriate documentation (studies, technical documentation and necessary permits to start construction) in order to develop projects to be applied to specific calls for funding. Therefore, it is important to define the priority list of capital investments and prepare the required documentation for major projects. In the case of our University, this issue is even more emphasized because of the need to conduct protective archaeological excavations, which are financially demanding and time-consuming, but without which it is not possible to prepare project and to implement all tasks. In this regard, analysis of needs will lead to drafting of a priority list for capital investments, and work teams will be formed to prepare project proposals. The teams will consist of employees of the individual constituents and of the University. Given the current financial situation, at this stage it is expected that the University and its involved constituents shall cover jointly for the incurred costs.

▪ **Faculty of Social Sciences and Humanities Osijek**

The Faculty of Social Sciences and Humanities in Osijek is located in the building built in 1897, on an area of 4,417.88 sq.m. The building was reconstructed in 1978. Lately there is a problem of leakage, which could endanger the safety of teachers and students and further teaching in the classrooms at the second floor. Ceiling of the great hall is also in danger due to the deterioration of the supporting beams. Therefore, the repair of the roof and attic is extremely important for normal functioning of the Faculty. The project documentation is prepared and in January 2014, the decision to renovate the building was obtained.

The existing building does not meet the spatial requirements to ensure quality teaching and working. Therefore, the Phase 3 of the University construction plans the construction of a building in the courtyard of the Faculty, which is this four-floor building with a total area of 3,456.00 sq.m. This annex building will consist of the student canteen and administration offices, lecture halls, library and reading room, and teachers' offices, as well as apartments in the attic. Preliminary design has been prepared for this building.

▪ **Faculty of Mechanical Engineering in Slavonski Brod**

The Faculty is located in Slavonski Brod and operates at 3 sites, of which two are owned by the Faculty (Gundulićeva, Budaka), while over the main building the Faculty is awarded the usage rights (Trg I. B. Mažuranić). The average area of all buildings per student is relatively small, being only 5.35 sq.m. (in comparison, the University of Rijeka disposes of 15 sq.m. per student). Renovation and interior decoration requires substantial investments. In 2009 and 2010, the Faculty of Mechanical Engineering in Slavonski Brod already renovated some space in the building I and rearranged the CAD laboratory in the building II. The Faculty bookshop was also rebuilt.

In the next five-year period, it is planned to renovate façade on the building 1, and to decorate the surrounding area. It is also planned to construct a new building of the Centre for knowledge and technology transfer that shall contain 9 laboratories with classrooms, a large lecture hall with 250 seats, and technical and support facilities. The new building of the Centre would dispose of a gross area of 1,375.41 sq.m., net usable area would be 1,225.37 sq.m. In 2013, all necessary permits for construction works were obtained. At the building II, it is necessary to adjust the entrance for people with disabilities, to set up outdoor lighting and to renovate floor in the computer room and in the maintenance laboratory.

▪ University centre

The University centre is designed as a students and teachers' cultural centre not only of the University but also of the whole city of Osijek. Since it is planned to be built at a very attractive location, in the city center - at the corner of Cardinal Alojzije Stepinac Street and the Vukovarska Street, its purpose is to provide a variety of services in one place. The Centre shall enable organization of various cultural and educational events, it will solve the problem of accommodation of employees and associates of the University, as well as parking in the city centre. The Centre shall also provide shops for hospitality and commercial services.

The Centre would have two underground garages with parking spots and technical spaces, on the ground floor there will be one large and one small hall, business premises and offices, on the first floor there would be a University agency, teachers' clubs, galleries and halls, as well as two floors with apartments of different sizes.

In 2012, survey of location was conducted and architectural contest was completed. The first prize for preliminary design was won by the company RBP Arhitekti Ltd., and a contract was signed in November 2013, in the value of 2,548,000.00 HRK. It is planned to obtain location permit and confirmation of the main project in late 2014 or early 2015. For the purpose of designing, in April 2014 the company IGH d.d. has prepared the geotechnical study. The building will consist of two buildings that are submitted to two distinct processes of issuing a certificate of the main project:

1. DILATATION 1 – Apartment building

Floors: 2 PO + P + 3

Layout dimensions – underground levels ca. 48 x 28 m
- ground levels ca. 41.40 x 28 m

2. DILATATION 2 - University centre

Floors: 2 PO + P + 2

Layout dimensions - underground levels ca. 86.80 x 28 m
- ground levels ca. 86.80 x 34.20 m

The preliminary design for both buildings was completed in November 2014 and is expected that the building permits shall be issued soon.

▪ Faculty of Medicine Osijek

The seat of the Faculty of Medicine Osijek is in the new building of basic biomedical sciences within the Osijek Clinical Hospital. The building disposes of a total net area of 3,153.79 sq.m. and it is organized in 4 floors. The top floor of the building houses a lecture hall with 80 seats, which was planned and built to allow distance learning. Within the hospital, there is a medical library and a building of vivarium. Vivarium is completed in the fall of 2005, followed by its equipping for housing and breeding of laboratory animals. In vivarium there is experimental teaching in preclinical classes for students held within integrated university study as well as for students at postgraduate studies in biomedicine and health, and staff and faculty teachers in the context of scientific research. In vivarium, there is laboratory of physiology of circulation. Facility for laboratory animals in the building of vivarium is a joint facility of importance for the development of scientific research activity in the field of biomedicine and related science, not only at the Faculty of Medicine in Osijek but also at the University of Osijek. In fact, this is the only facility of such type at the entire University in Osijek.

During 2008–2010, the building No. 10 was adapted at the campus at the area of 1,418.48 sq.m., so the Faculty management and administration was moved in.

According to the Employers' Association, it is necessary to increase the number of enrolled students to at least 150, and optimally 200 students to deal with the shortage of doctors in Slavonia and Baranja. In addition to increasing of enrollment quotas, introducing of new study and the application of new standards in teaching in accordance with the Bologna process shall improve the current situation, but the available spatial capacities will not be satisfactory. Long-term solving of spatial problems at the Faculty of Medicine in Osijek shall be addressed through renovation and annexing of devastated buildings of former Agricultural and Food Technology Faculty in Osijek and Agricultural School in the Josip Reihl-Kir Street, as well as to develop a project MEDICO-Polis, within which it is planned to open a university hospital.

▪ **Faculty of Electrical Engineering Osijek**

Within studies and different programs at the Faculty of Electrical Engineering Osijek, in the academic year 2011/2012, there was over 2200 students. Existing area at the Faculty is not sufficient if referring to global trends and human resources, as well as scientific research in the field of energy, communication and computing. The construction of new building in the University campus will provide for necessary material and spatial conditions. According to the preliminary urban planning of D. Gabrić, M.Eng., of September 2014, a new building of the Faculty of Electrical Engineering Osijek shall be built in the plot next to the buildings of the Faculty of Law and the Faculty of Civil Engineering.

▪ **Faculty of Food Engineering Osijek**

The building in the street F. Kuhača 18-20 was owned by the City of Osijek, and according to land registry of the Municipal Court in Osijek, the Faculty of Food Technology and the City of Osijek signed agreement on joint ownership of the building in Kuhačeva 18-20 in Osijek. The agreement stipulates that the portion of co-ownership of the building by the Faculty will be determined after they invested in necessary reconstruction. The basis for registration of the acquired property rights will form the final contract. Pursuant to this agreement, in December 2013 services of the expert were used to define the co-ownership share on the estate. On 8 January 2014, the total market (commercial) value of buildings amounted to 22,706,222.03 HRK (58.221%), and investments by the Faculty are 16,293,616.88 HRK (41.779%), and this condition is accepted as a starting position in further negotiations between the City and the University about joint issues related to the building.

On buildings of the Faculty of Food Technology Osijek in Kuhačeva 18-20, it is to renovate the façade, so for this purpose conceptual, basic and detailed architectural project was developed and the report on conservation and restoration research on the facade. The attic of the building in Kuhačeva 18 will be adapted for teachers. So far, conceptual, basic and detailed architectural projects for the buildings in Kuhačeva street have been prepared, but long-term solution of spatial problems of the Faculty of Food Technology Osijek will be made by a new building that would be located in the university campus at the plot next to the new buildings of the Faculty of Electrical Engineering Osijek and the Faculty of Civil Engineering.

▪ **Sports Hall**

By examining the documentation of Josip Juraj Strossmayer University of Osijek, it can be concluded that the University does not possess any sports facility, such as sports hall. In the first stage of solving this problem, construction of outdoor courts in the southern part of the University campus is planned. In the second phase, it is planned to construct and equip a multi-purpose three-part sports hall with an area of 6,100.00 sq.m., but previously it is necessary to conduct archaeological excavations. As the teaching within Physical Education course is performed at all constituents of the University, as well as many sports

activities, only such type of sports hall can meet the needs of the University. In addition to teaching physical education, construction of sports hall and outdoor playgrounds shall allow students to engage in extracurricular sports activities and sports events.

▪ **Faculty of Economics in Osijek**

The existing building of the Faculty of Economics in Osijek spreads on an area of approximately 5,200.00 sq.m. The Faculty enrolls about 5000 students and new premises are necessary for quality assurance of study and teaching in accordance with pedagogical standards. On the location of Gajev trg – Gundulićeva street, the Faculty uses rented premises of 200.00 sq.m., which is owned by the state. By submitting an application for transfer of ownership to the Faculty of Economics in Osijek, as a protected tenant, the possibility was opened to construct a new facility in the Gundulićeva street 10, with an approximate area of 2,000.00 sq.m. That building would provide teaching halls, offices for teachers, space for student activities and offices for administration and management.

In addition to already developed international university interdisciplinary doctoral program in English, possibilities are open for development of similar activities at the University in the context of lifelong learning, which is one of the important guidelines for development of higher education in the European Union. Such activity requires specific representative premises, which would also attract international students and business people and thus contribute to the internal integration of the University and to the internationalization of the University.

▪ **Faculty of Education**

The Faculty of Education at the campus disposes of two buildings, no. 6 and no. 9. *The Urbanistic Development Plan* allows annexing of the building no. 9 with an area of 4,000.00 sq.m. For the annexed building, it is necessary to ensure access from the public area, to make the project about access road, to make a subdivision of plot and to request consent by the Croatian Government for the transfer of ownership of the plot. Also, according to the *Urbanistic Development Plan*, the plot for annex building of the Faculty of Education requires the process of urban and architectural design competition. After selecting the conceptual design, detailed design will be made to plan building of specialized classrooms, lecture halls, laboratories, gym, classrooms and spaces for students, library and cafeteria. The annex building shall be connected with the existing building no. 9.

▪ **Theatre and exhibition space *manjež***

Theatre and exhibition space is planned to be situated in the northeastern part of the University campus. The existing building was a school for riding - *manjež*, which was built before the World War I as a free-standing brick building. The building is in a very bad condition, so it is necessary to carry out evaluation of the static, thermal and insulating status. The total building area is 2,325.00 sq.m., and the building would be used as a multimedia center that includes multi-purpose theatre hall, galleries with standing and seating areas, locker rooms and other facilities (offices, toilets, warehouses, etc.). In adaptation of the building, it is necessary to ensure archaeological supervision, and the building will be adapted according to standard conservation requirements. So far, preliminary design for reconstruction and adaptation has been prepared to be used as the basis for project proposal preparation.

Josip Juraj Strossmayer University of Osijek is the owner of real estate in the Vatrogasna Street in Osijek - two residential buildings and 7 construction plots foreseen for building of houses for young scientists. As there are not enough funds to project and construct the buildings, the real estate will be offered for sale within the University constituents. The amount gained from the sale would be used for preparation of project documentation in line with the priority strategic goals.

Task 6.3.1.

To analyze the real needs, compliance with other strategic objectives, financial opportunities and other influential factors in order to create a priority list of capital investments at the University for the forthcoming project period.

Task 6.3.2.

To obtain confirmation of the main project of the University Centre in the Cardinal Alojzije Stepinac Street.

Task 6.3.3.

To appoint project teams with representatives of University constituents for planning of infrastructure investments and perform related works on preparation of projects for tenders for the development of technical documentation of construction / reconstruction (Faculty of Electrical Engineering Osijek and Faculty of Food Technology Osijek).

Task 6.3.4.

To regularly monitor preparatory activity and at least twice a year make an internal report on completed tasks.

Task 6.3.5.

To conduct regular analysis of the rational management of real estate owned by Josip Juraj Strossmayer University of Osijek, in line with specific strategic aims.

Task 6.3.6.

To undertake preparatory activity for the project Medico Polis at the plot in the Josip Reihl-Kir Street in Osijek.

III.7. QUALITY ASSURANCE SYSTEM

III.7.1. Overview of the quality assurance system

Systematic dealing with the quality of education at Josip Juraj Strossmayer University of Osijek started with the establishment of the Committee for the quality assurance in higher education (Committee for Quality) and boards for improving and ensuring the quality of higher education (Boards for Quality) at the University constituents, and by adopting the Regulations on organization and activity of quality assurance system at the University in 2006 (Regulations on the quality assurance system).

Regular activities within the system included the implementation of the Unified university students' survey, collection and analysis of indicators of the studying quality, preparation of self-evaluation and annual reports on the system functioning and coordination of participants in quality assurance system. Daily activities included services for professional counseling of students, academic recognition of higher education qualifications and periods of study, organization of workshops³ and participation in seminars and workshops in Croatia and abroad, analysis and action plans in the field of scientific excellence at the University, application and implementation of projects in the field of quality and learning outcomes, cooperation with the Croatian Employment Service, producing publications and Manual on Quality, etc.

The University of Osijek has managed to advance quality assurance system autonomously, which was established through the project of the Croatian Science Foundation. Education and work on definition of learning outcomes at University constituents has been completed.

³External audit, Croatian Qualification Framework (HKO), learning outcomes.

The University is faced with continuous increase in the scope of activities related to quality assurance system since its introduction until today, as well as with increased demands from the Ministry of Science, Education and Sports and from the Agency for Science and Higher Education (ASHE)⁴. Reasons for the improvement of quality assurance model are the following: the need to ensure independence of the quality assurance system from the University management and its constituents and permanent strategic orientation of the University toward improving the quality of studying.

III.7.1.1. Development of the quality assurance system

III.7.1.1.1. Phase 1 of the quality assurance system development

For the first time the concept of studying quality appears in the documents of Josip Juraj Strossmayer University of Osijek in the late 1999, and already in 2000 a discussion was organized on the success of studying at the University of Osijek and the factors that affect it. The basis of the discussion was the study *Studying success at Josip Juraj Strossmayer University of Osijek*. The purpose of the analysis was to explain the reasons for low passing rate and enrolment in following academic year, as well as extended duration of studying⁵. In conclusion, the study proposes measures to improve the quality of studying. In 2001, it was pointed out that there are no comprehensive figures about quality and studying success and the proposed general measures are defined to improve the quality at all constituents. The University has become a member of the European University Association (EUA).

As a first step towards raising the quality of studying there was the ECTS system⁶ introduced. The University of Osijek participated with the universities of Zagreb, Rijeka and Split from 2002-2004 in the TEMPUS 2001 project *Development of Quality Assurance System in HE (QUASYS)*. Final project report stated that the University of Zagreb and the University of Rijeka “...implemented advanced quality management systems...”, while the University of Osijek and the University of Split “...accepted Strategy for quality assurance management and made some basic steps for the implementation of this system”.

In 2004, proposal to carry out the analysis on opinions of students about studying at the University of Osijek was accepted, as based on the offer of the Institute for Social Research Zagreb, the Centre for Research and Development of Education. Survey results were analyzed in 2005.

In 2005, the project team at the University, led by Prof. Dr. Sanja Lončar-Vicković, submitted a project proposal to the call of the Croatian Science Foundation about *Establishing a system to improve the quality of studying at Josip Juraj Strossmayer University of Osijek*. The project was approved in December 2005 being a major turning point in the development of quality system at the University.

⁴ In 2012 external evaluation of quality has been performed at all Croatian universities.

⁵ The survey included nine faculties at the University, and followed the guidelines: pass rate (% enrollment to the higher study year), the percentage of class attendance, teaching realization, transparency of exam periods for the whole year, number of exam takings, exam results, offer of consultations, availability of literature, the possibility of taking exams with more teachers and issues related to practices (premises, equipment).

⁶ Pilot projects of introducing ECTS were performed at the Faculty of Economics and the Department of Mathematics of the Josip Juraj Strossmayer University of Osijek.

III.7.1.1.2. Phase 2 of the quality assurance system development

The Phase 2 of the quality assurance system development (from 2006-2012) was marked by the set-up of the quality assurance system at Josip Juraj Strossmayer University of Osijek.

The project “*Establishment of the system to improve the quality of studying at Josip Juraj Strossmayer University of Osijek*” was realized in 2006 by fulfilling the following goals: the initiation and promotion of quality culture at the University and in its wider environment, defining procedures, standards and documents (*Regulations on quality assurance system*⁷) that regulate the system of quality improvement and the inclusion of students and teachers in definition of quality assurance system processes.

The unified university student survey has been launched in the framework of establishing the quality assurance system at the University of Osijek for the first time in 2006, and the main reason for its initiation was to obtain information about the quality of studying from the student perspective. The project activities included the establishment of the Committee for quality assurance, as well as the Office for the improvement and quality assurance at the University (Quality Assurance Office) and boards or offices for quality assurance at the University constituents (Quality Assurance Office). The quality assurance advisor was also appointed. Workshops were organized and web page on quality assurance system (<http://www.unios.hr/index.php?g=7&i=46>) has been set up. Head and members of the project team participated in the preparation of publication *Quality of higher education*. Within the project, in July 2007, the *Guide through the system of quality assurance at Josip Juraj Strossmayer University of Osijek* was published.

In early 2006, an analysis of the quality of studying at the University of Osijek by measuring of values of selected quality indicators and the Strategic Plan for quality assurance system at the University was prepared. Workshops were organized for members of the boards for quality assurance at the University constituents, for teachers and students, as well. Workshop topics were related to the presentation of quality assurance system and to its improvement at the University, to discussion on results of unified university student surveys, orientational and motivational practice for students in the first year of study and initial comparison with Croatian universities (benchmarking). The first workshop for heads of student services at University constituents was held in 2007, with the topic on tracking of records of quality indicators at the Osijek University. There was a layout table adopted for recording of quality indicators and instructions were given on how to monitor and record indicators. The quality assurance advisor and staff of the Quality assurance office visited in the same period all University constituents to get an insight into improvement of the quality in higher education system.

The project *Systematic approach to the introduction of learning outcomes in the education of students at Josip Juraj Strossmayer University of Osijek - SUPER UNIOS* was realized during 2008 and 2009. As a result of that project, there was a publication issued *Learning outcomes - Manual for teachers*. Within the activities of the Tempus JEP project *ECAS - Establishing Career Advising Services at Croatian Universities*, the Students' career advice service was established in the Rectorate in 2009. The Law on quality assurance in science and higher education was presented on two occasions.

In 2010, the University of Osijek signed the declaration on *The European Charter for Researchers, The Code of Conduct for the Recruitment of Researchers*, thus accepting the initiative of the European Commission, which in 2005 adopted these documents in order to improve employment opportunities and increase values of researchers' careers. In October 2011, the Office for quality assurance started the process of harmonization of research practice at the University with the principles of the *Charter and Code*. As a result of simultaneous work of stakeholders at all levels of the University, from administration and services

⁷Regulations of Quality assurance system was adopted for the first time at the Senate session of 23 September 2006.

to the University young and senior researchers in all constituents, the documents of *Internal Analysis* and *the Action Plan* were prepared. The Action Plan with proposed activities, deadlines for implementation and responsible authorities for implementation, was adopted by the vice-dean board of the University, at their meeting held on 5 March 2012. *The Action Plan* has been recognized by the European Commission so the University of Osijek has been assigned a logo of excellence on 1 August 2012, (<http://www.unios.hr/?g=5&i=146>).

Academic recognition of higher education qualifications and periods of study is dealt with by the Quality Assurance Office since academic year 2010/2011. In 2011, a new web page of the University of Osijek was published to make information and activities of the University more transparent and easily accessible. On the website, there is information on the University quality assurance system.

III.7.1.1.3. Phase 3 of the quality assurance system development - improved system structure (UNIOSQ)

Quality assurance system of the University in Osijek has been established in 2012, and the *Manual on Quality*⁸ was prepared. The Centre for quality assurance in higher education (Centre for quality assurance). The system is based on *Standards and guidelines for quality assurance in European higher education area* (ESG). Documentation about quality assurance system is structured according to the requirements of the HRN EN ISO 9001 standards for management of teaching, scientific research and business processes.

Internal audit of the quality assurance system

In May and July 2012, internal audit of the quality assurance system was carried out at University Rectorate and constituents. Internal audit was conducted for the purpose of evaluation of the current state of quality assurance system, which should result in proposals for improvement of the system. In September 2012, internal audit of quality assurance system was also performed, which included all processes in the Rectorate of the University. In 2013, internal audit of individual organizational units of the Rectorate was performed (17 June 2013). In 2014, internal audit of the quality assurance system was performed at the level of all University constituents (in June and July) and in the Rectorate (on 7 July 2014). Audits were completed in accordance with the general process for quality assurance system **UNI-PO-8.1** Internal audit. Based on analysis of internal audits, it can be concluded that the established quality assurance system largely complies with the requirements of EN ISO 9001 standards and with the provisions of the *Manual on Quality*.

External independent periodical audit of the quality assurance system (audit)

External independent periodical audit of the quality assurance system (audit) was carried out at Josip Juraj Strossmayer University of Osijek from 10-12 October 2012 according to *Criteria for audits of development levels and quality assurance system efficiency at higher education institutions in the Republic of Croatia* (ASHE) and according to *Standards and guidelines for quality assurance in European higher education*

⁸ *Manual on Quality* is the basic document that describes and defines the management of QA system and presents systematic approach to quality assurance and its improvement at the University. At the same time, it is achieving the standards defined in the *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG). The *Manual on Quality* defines the objectives of the quality in teaching, scientific and business processes. *Manual on Quality* of Josip Juraj Strossmayer University of Osijek and descriptions of certain procedures were adopted on 3 September 2012. *Manual on Quality* (version 2.0) was revised on 15 July 2013. Revision defined the role and function of the head of the quality system that is responsible for the functioning, efficiency and development of the management of quality assurance system at the University. The Head initiates, coordinates and monitors all activities related to the QA management, he/she represents the University in all matters related to the QA management at other University constituents, prepares reports and presentations about the functioning of the QA system for the Rector and the University Senate, develops and coordinates the realization of the internal audits, analyzes the results of the internal audits and monitors the implementation of appropriate measures and corrective actions, and has the power to suspend processes or activities which are inconsistent with the policy of quality assurance and quality objectives.

area (ESG). Aims of external audit are: evaluation of the development level and efficiency of the system of quality assurance and contribution to the continuous improvement of quality culture at an institution. Upon receiving the report prepared by the Commission for the implementation of external independent periodic audit of the quality assurance system at Josip Juraj Strossmayer University of Osijek, it was concluded that the established system of quality assurance at the University is currently between the initial and developed stage.

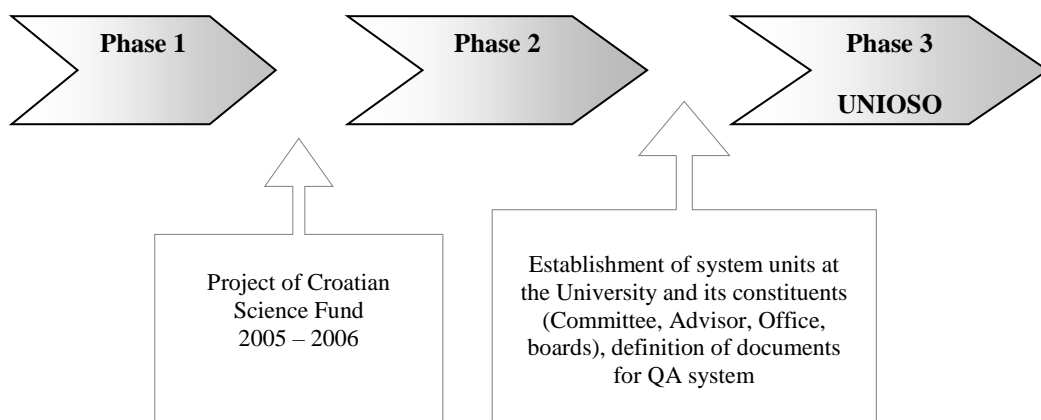


Figure 1 – Establishment of quality assurance system at Josip Juraj Strossmayer University of Osijek

Quality assurance system in line with the HRN EN ISO 9001 standard

Certification audit of Josip Juraj Strossmayer University of Osijek was preceded by internal audit system, which included all processes at the Rectorate of the University. Internal audit was carried out on 25 September, and certification audit on 2 October 2012. Positive comments of auditors referred to the well-ranked documentation about quality assurance system (*Manual*, procedures) and excellently prepared *Manual on Quality Assurance of the University*.

The first supervisory audit on quality assurance system in accordance with the standard HRN EN ISO 9001 was implemented on 20 November 2013. Supervisory audit was preceded by internal audit at individual organizational units of the Rectorate (17 June 2013). The second surveillance audit on quality assurance system was implemented on 29 September 2014. It was preceded by internal audit at all University constituents in June and July 2014 by using a form from the Reports on functioning and efficiency of quality assurance system (**UNI-OB-8-13**), as well as internal audit of the Rectorate (7 July 2014). The internal audits were performed in accordance with the procedure of the quality assurance system **UNI-PO-8.1** Internal audits.

III.7.1.2. Centre for quality assurance in higher education

The purpose of establishing the Centre for quality assurance in higher education is to improve and ensure the quality of education at the University of Osijek in order to make it recognized and competitive in the European higher education area. The Centre for quality assurance acts as a main University institution to monitor the quality of education at all constituents, and its establishment presents an extension to the integrative function of the University⁹.

Within establishing of the QA system, the Senate of the University of Osijek passed in June 2012 a decision on establishment of the Centre for quality and on appointment of the acting head of the Centre (26 June 2012). The Regulations on the system of quality assurance - consolidated text, as well as the Regulations on the Centre for quality assurance in higher education (Regulations of the Centre) were adopted in December 2013. The Decision on the constitution of the Council of the Centre for quality assurance in

⁹Integrativna djelatnost Centra za kvalitetu usmjerena je ka strateškom planiranju, iniciranju, vođenju i upravljanju različitim aktivnostima koje se provode na sastavnicama Sveučilišta radi poboljšanja kvalitete studiranja.

higher education (Council of the Centre), as well as the decision on the nomination of the candidates for the appointment of the Head of the Center for Quality was adopted on 23 January 2014. On 28 January 2014, the decision on the appointment of the Head of the Centre for quality assurance for the mandate period 2014 - 2018, confirmed Assoc. Prof. Dr. Sanja Lončar-Vicković as a Head of the Center for Quality. The reasons for the change are found in the need to ensure greater independence of the QA system from the management of the University and its constituents.

The initial plan of activities of the Centre for quality is based on the results of work performed by the Head of the Centre, the Committee for quality, the Centre for quality, as well as by boards for quality at the University constituents, and the objectives and scope of work of the Centre, which are defined by the University decisions. The Centre for quality assurance will continue to implement regular and additional activities of the Quality assurance office, as well as planned activities of the Centre for the academic year 2014/2015, which include: evaluating and improving the studying quality¹⁰, evaluating and improving the quality of scientific research¹¹, quality management system¹² and coordination of quality assurance system¹³. Activity plan of the Centre for quality is harmonized with the *Strategy of the University of Osijek 2011- 2020* and with the policy and objectives of quality assurance system at the University, with the *Manual on Quality* and the *Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)*. Plan of activities is also based on conclusions of the Management's evaluation of the quality assurance system, as well as the operational plan to implement tasks defined through strategic objectives (attached to this *Strategy*). All activities of the Centre for quality will be aligned with the revised versions of the *Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)* and the international standards ISO 9001 (Quality assurance system – criteria).

¹⁰ Unified university student survey (analysis of survey results), indicators of quality, learning outcomes, Croatian Qualification Framework (HKO), accreditation of study programs.

¹¹ Unified university student survey (analysis of survey results), indicators of quality, learning outcomes, Croatian Qualification Framework (HKO), accreditation of study programs.

¹² Documents of the QA management, internal audit.

¹³ Coordination meetings, education of staff for QA management, presentation of activities of the system, web site, newsletter, organization of network meetings with the Agency for Science and Higher Education ASHE with respect to QA management issues.

III.7.2. Organizational structure - establishment of quality assurance system

*Organizational structure of quality management at
Josip Juraj Strossmayer University of Osijek*

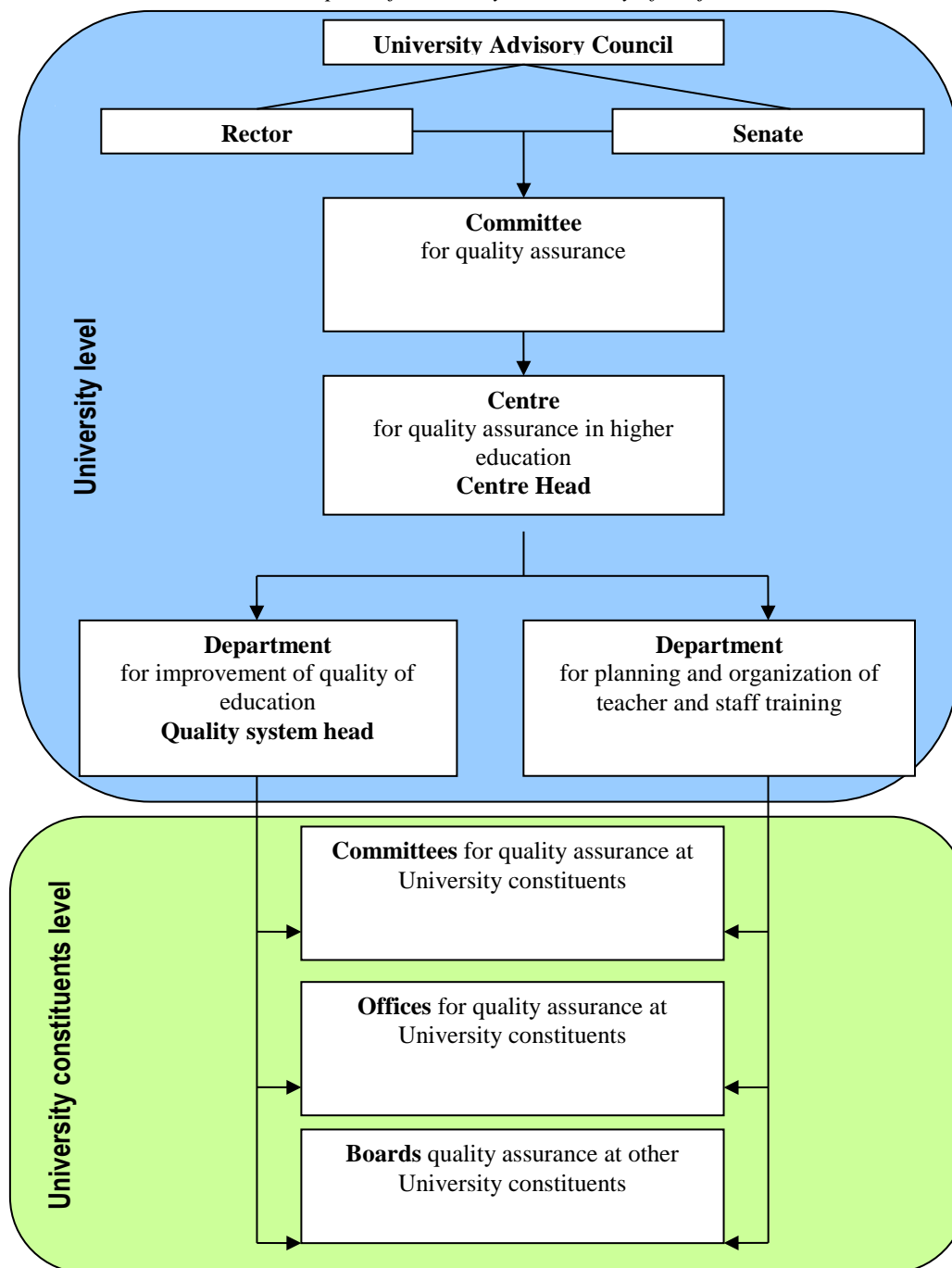


Table 7.2.

III.7.3. Stakeholders' responsibility within the quality assurance system

Stakeholders in the quality assurance system at Josip Juraj Strossmayer University of Osijek are:

- At the University level: Rector of the University, Senate of the University, University Advisory Council, Committee for quality and Centre for quality assurance;
- At the constituents' level: dean, vice-dean, offices for quality, committees for quality;

- At other constituents' level: boards for quality.

Organizational units / bodies for quality assurance system at Josip Juraj Strossmayer University of Osijek are:

- At the University level: Committee for quality and Centre for quality assurance;
- At the constituents' level: offices for quality, committees for quality;
- At other constituents' level: committees for quality.

III.7.3.1. Rector of the University

According to the Statute of the University, the rector:

- Appoints the head of the quality assurance system at Josip Juraj Strossmayer University of Osijek.

According to the Manual on Quality, the rector:

- Is responsible for functioning and efficiency of the quality assurance system according to defined policy on quality assurance
- Monitors preparation and implementation of external and internal audit on quality assurance system
- Approves usage of documents for quality assurance system at the University
- Defines policy on quality and objectives of quality
- Approves annual plan of internal audits
- Confirms Management evaluation on the quality assurance system.

III.7.3.2. Senate of the University

According to the Statute of the University, the Senate:

- appoints the members of the Committee for quality
- brings a decision to establish the Centre for quality assurance.

According to the Manual on Quality, the Senate:

- considers the proposal of the annual report on functioning and efficiency of the quality assurance system and adopt it as the Management evaluation on quality assurance system.

III.7.3.3. University Advisory Council

According to the Statute of the University, the University Advisory Council:

- discusses and confirms strategic and development decisions of the Senate
- adopts the Strategy of quality assurance system development at Josip Juraj Strossmayer University of Osijek
- confirms annual report on functioning and efficiency of the quality assurance system.

III.7.3.4. Committee for quality assurance system

According to the *Regulations on establishment and activity of the quality assurance system at Josip Juraj Strossmayer University of Osijek*, the Committee:

- monitors the quality assurance system at the University
- suggests strategic planning and reaches decisions about guidelines and procedures for quality assurance and its improvements
- proposes to the rector and the Senate of the University activities to be undertaken to induce innovations and development in order to promote culture of quality
- assures efficiency of procedures for quality improvement
- supervises efficiency of implementing defined mechanisms for quality assurance at the University constituents
- prepares annual activity plan to present it to the Senate
- submits to the Senate annual report about functioning and efficiency of quality assurance system
- prepares annual work plan (for academic year).

III.7.3.5. Centre for quality assurance in higher education

According to the *Regulations on establishment and activity of the quality assurance system at Josip Juraj Strossmayer University of Osijek*, the Centre:

- Performs tasks related to the management and improvement of the quality in higher education;
- Monitors the quality of studies, including monitoring of the entire study programs for all three cycles of education: undergraduate, graduate and postgraduate study; monitors the quality of teaching; performs survey with students and teachers about teaching, teaching content, literature, introduction of new approaches and forms of teaching, exams, competences, communication with teachers, access to information about study programs, the impact of students on the content of study programs, teaching and workloads – ECTS;
- Starts and coordinates initiatives and implements development programs for continuous quality assurance;
- determines characteristic indicators of quality and organizes their systematic monitoring;
- supports and organizes discussions about quality;
- spreads culture of quality in the academic and non-academic public;
- defines standards and criteria of quality functioning at University constituents;
- prepares annual work plan for the Centre for quality (for academic year);
- prepares annual report on analysis of efficiency of quality assurance system and its effects on the quality of education. This report is a part of annual report on functioning and efficiency of quality assurance system.

III.7.3.5.1. Head of the Centre for quality assurance in higher education

- represents the Centre for quality assurance
- has all rights and obligations according to the *Statute of the University* and *Regulations on the Centre for quality*
- presents report on internal audit on quality assurance system to the University constituents at the Committee for quality session to present the best practice of all University constituents and to give recommendations for improvements within the procedure UNI-OB-8-6.

III.7.3.6. Quality assurance system coordinator

- establishes, implements and maintains quality assurance system
- establishes and keeps documentation on quality assurance system
- represents University in all matters related to QA system (at ASHE, ISO)
- keeps records on quality assurance system (prepares and keeps documentation on system management) – Manual on Quality, procedures, forms and records
- reports on functioning of the quality assurance system to the rector and Senate of the University
- prepares report on internal audit of the quality assurance system of the Rectorate
- prepares annual report on functioning and efficiency of quality assurance system
- prepares annual plan of internal audits
- develops and coordinates the plan for internal audits in quality assurance system
- prepares time plan of internal audits
- prepares final report on nonconformities
- analyzes results of internal audits, monitors implementation of measures and corrective activities
- approves and implements preventive activities
- approves and implements corrective activities
- trains and motivates stakeholders in quality assurance system to raise awareness on quality issues at the University (workshops)

- is authorized to abolish processes or activities which are not in line with defined policy on quality and its objectives
- has free access to information, which can have influence on the quality of processes at the University.

III.7.3.6.1. Department for education quality improvement

- collects data in accordance with the general procedure for quality assurance system (**UNI-PO-8.1** Internal Audit) and prepares annual report on the functioning and efficiency of the quality assurance system (**UNI-OB-8-8**), which consists of data collected by the internal audit of all University constituents and internal audit of the University Rectorate;
- develops procedures for internal and external audits and methods for investigating various aspects of quality in education;
- performs analysis and collects information on the quality at all constituents;
- defines causes of poor quality, inefficient and too long studying and provides feedback from the students and coordinates their suggestions, proposals and critics;
- prepares Manual on Quality Assurance that is applied at all University constituents;
- develops annual work plan;
- prepares annual report on completed activities.

III.7.3.6.2. Department for planning and organization of teaching and non-teaching staff training

- is responsible for the organization of meetings at which the will be management evaluation of the QA system adopted, prepares agenda and keeps minutes
- prepares reports on the results of the management evaluation on the QA system and defines decisions and actions that shall be performed, and is responsible for submitting them to the members of the University management
- is responsible for the implementation of decisions and actions that will result from the management evaluation on the QA system for the area of its responsibility
- determines the annual plan of internal audits
- promotes and organizes professional trainings of teachers, associates, managers and administrative staff in the field of quality assurance (teaching methods, e-learning, new tools for teaching)
- is responsible for education in quality issues
- prepares annual work plan
- prepares annual report on completed activities.

III.7.3.7. Committees for quality assurance system in higher education at University constituents

- constitution and authority of committees are defined by *Regulations on system quality University*
- establishment and way of working of committees are defined by the statute of University constituents
- committees prepare annual work plan
- prepare annual report on completed activities at the constituent about functioning and efficiency of quality assurance system¹⁴ and submits it to the Faculty council, i.e. to the Academy council, and after the report is accepted, it is further submitted to the Department for education quality improvement.

III.7.3.8. Committees for quality at other University units

III.7.3.8.1. City and University Library Osijek

¹⁴ Oblik i sadržaj Izvješća sastavnice o funkcioniranju i učinkovitosti sustava upravljanja kvalitetom definirani su općenitim postupkom sustava upravljanja kvalitetom **UNI-OB-7.1**

- constitution and authority of the committee is defined by se statute of the constituent unit or by another act
- prepares annual report on completed activities at the constituent about functioning and efficiency of quality assurance system and submits it to the Management Board of the Library and after the report is accepted, it is further submitted to the Department for education quality improvement.

III.7.3.8.2. Student Centre in Osijek

- constitution and authority of the committee is defined by se statute of the constituent unit or by another act
- prepares annual report on completed activities at the constituent about functioning and efficiency of quality assurance system and submits it to the Management Board of the Student Centre and after the report is accepted, it is further submitted to the Department for education quality improvement

III.7.3.8.3. Student Centre in Slavonski Brod

- constitution and authority of the committee is defined by se statute of the constituent unit or by another act
- prepares annual report on completed activities at the constituent about functioning and efficiency of quality assurance system and submits it to the Management Board of the Student Centre, and after the report is accepted, it is further submitted to the Department for education quality improvement.

III.7.3.8.4. University Centre for bibliographic and documentary material on Josip Juraj Strossmayer and church history

- constitution and authority of the committee is defined by se statute of the constituent unit or by another act
- prepares annual report on completed activities at the constituent about functioning and efficiency of quality assurance system and submits it to the Centre Council, and after the report is accepted, it is further submitted to the Department for education quality improvement

III.7.3.8.5. Tera Tehnopolis Ltd.

- constitution and authority of the committee is defined by se statute of the constituent unit or by another act
- prepares annual report on completed activities at the constituent about functioning and efficiency of quality assurance system and submits it to the Management Board, and after the report is accepted, it is further submitted to the Department for education quality improvement.

III.7.4. SWOT analysis of quality assurance system management

Strengths

- adopted strategic and legal documents
- clearly defined authorities for implementation of quality management
- appointed committees on all University constituents
- strong support by the University Management
- certificate ISO 9001
- establishment of the Centre for Quality
- appropriate facilities and infrastructure
- web page (up to date information, all documentation published)
- good cooperation (communication) with ASHE, ISO, TUV

Weaknesses

- there are not all University constituents integrated in the quality assurance system

- portion of scientific research activity in quality assurance system is minimal
- documentation about quality assurance system is non-consistent
- communication with University constituents is mostly one-way
- external stakeholders
- non existing cooperation with other universities regarding the quality assurance issues
- web pages (lack of English version).

Opportunities

- corrective measures according to the Committee report – Follow-up plan
- preventive/corrective measures according to the supervising audit report
- establishment of fund for science and advisory board for science
- definition and division of quality indicators
- learning outcomes (HKO)
- legal framework
- better involvement of students in the process of decision-making and adoption of strategy for quality assurance system.

Threats

- Centre for quality assurance gets new, additional activities outside of its defined scope of action
- Too general mission and vision of the University.

III.7.5. Mission, vision, values

III.7.5.1. Mission

- development and spreading of quality culture at the University (system recognized at its own surroundings - academic, non-academic community).

III.7.5.2. Vision

- strong quality assurance system independent from the University Management, unified system that spreads to all University constituents (all stakeholders in the system systematically work at improvement of quality culture).

III.7.5.3. Values

- open cooperation between bodies involved in quality assurance system - Committee for quality, Centre for quality assurance (responsibility in work, enthusiasm, wish for improvement, trust)
- academic integrity, commitment and openness to the academic community
- lifelong learning of stakeholders of quality assurance system.

III.7.6. Strategic aims of the quality assurance system management

Strategy of development in quality assurance system for the period from 2011-2016 is based on realization of the following strategic aims:

- strengthening of efficient organizational structure for implementation of activities related to quality assurance system at all levels
- advancement of development and efficiency of the QA system according to criteria of *Standards and guidelines for quality assurance the European higher education area (ESG)*.

Strategic aim 7.1.:

Strengthening of efficient organizational structure for implementation of activities in quality assurance system at all levels.

University level

At University level, quality assurance system consists of the Committee for quality and the Centre for quality assurance. Activity, constitution and work of the Committee is defined by the *Regulations*. Scope of activities of the Centre is defined by the *Study*.

Structure, standards, institutional framework, legal framework and specific objectives, as well indicators are defined by the *Manual on quality*. The relations between Committee and the Centre are defined also by the *Manual on quality*. Responsibilities and authorities for creation of the quality assurance system are defined at the level of university bodies.

Level of University constituents

At the level of University constituents, quality assurance system are made of offices for quality and committees for quality. Activity, constitution and work of the committees are defined by Regulations. Scope of activities of the Quality assurance offices are defined by University constituents' acts.

Task 7.1.1.

To permanently improve quality assurance system at the University.

Task 7.1.2.

Prepare and adopt the Strategy on quality assurance system as a constituent part of the *University Strategy*.

Task 7.1.3.

To harmonize documents related to quality assurance system at the level of University and University constituents.

Task 7.1.4.

To appoint staff dealing with quality assurance system at all University constituents.

Within this strategic aim, it is defined in which way the University plans to fulfill the conditions of ESG 1.1, which area is centralized, and which is put on the University constituents' level. Each University constituent acts on its own in the procedure of external evaluation by ASHE, but the most of processes (approval of the programs, survey of students, educational resources, quality of teachers, informational packages) are under supervision and control by the University. Once objectives are fulfilled, there must be a clear system of quality management at the University and relations of elements in that structure.

Strategic aim 7.2.:

Advancement of developments and efficiency of the quality assurance system according to all criteria of the *Standards and guidelines for quality assurance the European higher education area (ESG)*.

University level

At the University level, all criteria of the ESG standards shall be followed. Priorities are standards of 1.6 *Information system*, 1.2.2 *Scientific research work*, 1.1 *Policy of quality and procedures for quality assurance* and 1.4 *Assurance of the quality of teachers*.

Level University constituents

Decision about steps related to advancement of criteria of the ESG standards remains at the University constituents' level, with the obligation of reporting on progress.

Task 7.2.1.

To implement measures for improvement of the quality assurance system based on an external audit.

Task 7.2.2.

To improve communication channels between the University (Committee, Centre) and the University constituents (offices, boards).

Task 7.2.3.

To improve the level of development of all criteria referring to ESG standards.

Task 7.2.4.

To define learning outcomes within study programs/courses at all University constituents.

Task 7.2.5.

To set up a database on students/potential employees.

Task 7.2.6.

To revise documents and elements of quality assurance system.

Overview of strategic aims and tasks of the *Strategy of Josip Juraj Strossmayer University of Osijek* – draft version**III.1. Teaching process****Strategic aim 1.1.: Students**

Enabling better studying conditions, continuous work on increasing the achievement of students in all study programs with regards to student success and learning outcomes and changing enrollment policy

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|---|---|---|--------------------------------------|---|
| Task 1.1.1. Definition of position, rights and obligations of students in the educational process at the University | Regulations on studies and studying at Josip Juraj Strossmayer University of Osijek Changes and amendments to the Regulations | Board of Secretaries Board of Vice-Deans for Teaching Committee for statutory and legal issues Vice-Rector for education and students (further in the text: Vice-Rector for education) Rector | Academic secretary of the University | Regulations on changes and amendments; adapted to the needs and legal novelties (September 2010), March 2015 |
| Task 1.1.2. Facilitating access to higher education to young people from families of lower socio-economic status and students with disabilities over the next ten-year period | Regulations on conditions and procedure of gaining rights for scholarships and supports awarded by Josip Juraj Strossmayer University of Osijek | Vice-Rector for education Board of Vice-Deans for Teaching Office for students with disabilities Deans and department heads Rector | Vice-Rector for education | October 2014 |

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|---|--|--|---------------------------|-------------------------|
| Task 1.1.3. Facilitating education through various forms of scholarships and grants over the next ten-year period (award grants and scholarships in accordance with the financial possibilities at least once a year) | Annual report on awarded supports and scholarships to the categories of students defined in the <i>Regulations on conditions and manner of awarding student scholarships and supports at Josip Juraj Strossmayer University of Osijek.</i> | Vice-Rector for education Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for education | continuously |
| Task 1.1.4. Conducting activities by University constituents to enhance the quality and studying conditions over a ten-year period | Annual report about realized activities from the University constituents | Board of Vice-Deans for Teaching Deans and department heads | Vice-Rector for education | continuously until 2020 |
| Task 1.1.5. Investments into improving the quality and conditions of studying for students with disabilities | Annual report from University constituents about investments into equipment and studying conditions of students with disabilities Preparation of recommendations on improvement of studying conditions of students with disabilities and periodic evaluation of current state | Vice-Rector for education Office for students with disabilities Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for education | continuously |
| Task 1.1.6. Adjustments of University enrollment quotas to labor market needs (in cooperation with industry, the public sector and the Croatian Employment Service) | Round table about the economy and civil sector needs for various profiles of graduates Annual overview and balancing of enrolment quota | Vice-Rector for education Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for education | continuously until 2020 |

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|---|---|---|---------------------------|-------------------------|
| Task 1.1.7. Identifying the skills and knowledge that graduates should possess for successful integration into the labor market (more flexible educational process in order to achieve flexible (young) workforce for the labor market) in accordance with the Croatian Qualification Framework | Consultations, round table and preparation of recommendations with interested stakeholders in the field of economy and public administration (representatives of the Croatian Employment Service, the Croatian Employers Association, Croatian Chamber of Commerce, trade associations and chambers, and workers' unions) | Vice-Rector for education Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for education | continuously |
| Task 1.1.8. Increase of the number of enrolled students in the STEM area | Annual report about the number of students enrolled in the STEM area | Vice-Rector for education Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for education | continuously until 2020 |
| Task 1.1.9. Increase of the number of graduates with a degree in technical, biomedical, biotechnical and natural (STEM) sciences, in the information and communication area and related interdisciplinary studies | Reports about realization of aims, graduate students from the STEM and related areas | Vice-Rector for education Board of Vice-Deans for Teaching Contact persons for implementation of general aims | Vice-Rector for education | continuously |
| Task 1.1.10. Adjusting the study programs to the needs and possibilities of studying for people older than 25 years, in order to raise the educational level of population and to facilitate the easier | Analysis of state in the study programs with recommendations for easier access to studies for people older than 25 years | Vice-Rector for education Committee for evaluation of study programs | Vice-Rector for education | continuously until 2020 |

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|---|---|---|---------------------------|-------------------------|
| involvement of these persons in the labor market | | Board of Vice-Deans for Teaching Deans and department heads Rector | | |
| Task 1.1.11. Establishment of study programs on the basis of learning outcomes with ECTS credits that represent real workload of students (that are necessary to acquire specific learning outcome) | Overview of study programs at University constituents with clearly defined learning outcomes and ECTS referring to workload of students | Vice-Rector for education Committee for evaluation of study programs Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for education | 2015 |
| Task 1.1.12. The harmonization of criteria and conditions for the transfer of ECTS credits between universities and between the university and professional studies | Rules on criteria and conditions for ECTS credit transfer between University and professional studies | Board of Secretaries Committee for statutory and legal issues Vice-Rector for education Board of Vice-Deans for Teaching | Vice-Rector for education | 2015 |
| Task 1.1.13. To increase the incoming and outgoing student mobility by 10% until 2020 | Annual report about incoming and outgoing mobility of students | International Relations Office Vice-Rector for education Deans and department heads Rector | Vice-Rector for education | continuously until 2020 |

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| Task 1.1.14. Promotion of university sport at national, European and international level as a part of promotion and recognition of the University | Report on the participation of university teams at national, European and international university sports competitions Analysis of financial supports to university sport | Vice-Rector for education Vice-Rector for strategic and spatial planning Committee for sport | Vice-Rector for education | continuously |
| Task 1.1.15. Organization of sports activities of students in their free time | Renting of sports hall for the purpose of student exercises and extracurricular sports activities Reports from University constituents on the promotion and organization of sports activities of students in their free time | Vice-Rector for education Vice-Rector for strategic and spatial planning Committee for sport | Vice-Rector for education | continuously |
| Task 1.1.16. Improvement of university sports activities based on reported student interests and needs | Survey on the interests and needs of students referring to the university sport, exercise and activities organized as leisure | Vice-Rector for education Vice-Rector for strategic and spatial planning Committee for sport | Vice-Rector for education | continuously |
| Task 1.1.17. Continuous assistance to students through individual and group counseling about job opportunities and career development | Career Days, workshops (writing CVs, job interviews), individual and group counseling | Vice-Rector for education Board of Vice-Deans for Teaching Students' career advice service Student Union | Vice-Rector for education | continuously |

Strategic aim 1.2.: Study programs

Continuous modernization of study programs based on the evaluation of the same, as well as work on the introduction of new study programs according to the needs of the labor market

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|--|--|---|---------------------------|-------------------------------|
| Task 1.2.1. To establish the ratio of undergraduate and graduate studies to be 1:2 in the next three-year period | Annual report of the Rector | Vice-Rector for education Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for education | 2017 |
| Task 1.2.2. To prepare an analysis of study programs in accordance with the <i>Act on quality assurance in science and higher education, the Regulations on the content of license and conditions for issuing of licenses to perform activities of higher education and carrying out study programs and re-accreditation of higher education institutions</i> , as well as according to established strategic objectives of the University in teaching activities and higher education | Analysis of study programs | Vice-Rector for education Board of Vice-Deans for Teaching Committee for evaluation of study programs Deans and department heads Rector | Vice-Rector for education | 2016 |
| Task 1.2.3. Development of study programs that will be taught in English and / or other foreign | Analysis of study programs that are performed or can be performed in | Vice-Rector for education | Vice-Rector for education | continuously |

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| languages to support mobility of students and teachers and to offer more ERASMUS courses (including the possibility of initiation of joint study programs at all levels) | foreign language with the recommendations for the same Overview of new (joint) study programs Annual analysis and evaluation of ERASMUS courses | Board of Vice-Deans for Teaching Deans and department heads | | |
| Task 1.2.4. Establishment of new study programs in architecture, dentistry, pharmacy, physical education, social work and technical education according to the market needs in the immediate and wider environment | Studies on precise study programs | Committee for preparation of study programs Committee for evaluation of study programs Vice-Rector for education Deans Rector | Vice-Rector for education | until 2020 |
| Task 1.2.5. Establishment of the University Centre for professional studies that will assure organization of professional studies at the University | Established Centre for professional studies | Committee for preparation of studies Board of Secretaries Vice-Rector for education Deans Rector | Vice-Rector for education | 2015 |

Strategic aim 1.3.: Teachers

Strengthening the University constituents with respect to the number, qualifications and competences of teachers at scientific-teaching, teaching and associate positions

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|--|---|---|---------------------------|-------------------------------|
| Task 1.3.1. To define criteria of success of teachers, as well as to define modes of monitoring the teaching quality | Criteria of success Institutional evaluation of teaching quality | Board of Secretaries Committee for statutory and legal issues Vice-Rector for education Board of Vice-Deans for Teaching Rector | Vice-Rector for education | 2016 |
| Task 1.3.2. Improvement of teachers' competences for teaching (student-focused model) | Overview of organized workshops | Vice-Rector for education Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for education | continuously |
| Task 1.3.3. Definition of short-term and long-term human resources policy of the University | Analysis of human resources with short-term and long-term projections | Vice-Rector for education Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for education | 2015 and onward annually |

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|--|---|---|---------------------------|--------------|
| Task 1.3.4. To improve the ratio of teachers and students at University studies, in particular within the STEM area | Analysis of the ratio of teachers and students at University constituents to plan future period | Board of Vice-Deans for Teaching Vice-Rector for education Deans and department heads Rector | Vice-Rector for education | continuously |
| Task 1.3.5. Creation of job positions that will be financed from the program contracts (payment of assistants, scientists from abroad, etc.) | Realized calls for the stated job positions | Board of Vice-Deans for Teaching Vice-Rector for education Deans and department heads Rector | Vice-Rector for education | continuously |
| Task 1.3.6. Continuous monitoring of costs of external cooperation and mandatory planning of budget intended for external cooperation (for each academic year) | Analysis of costs of external cooperation and realization of planned means | Board of Vice-Deans for Teaching Vice-Rector for education Deans and department heads Rector | Vice-Rector for education | continuously |
| Task 1.3.7. To increase mobility of teachers within universities in Croatia and abroad by 10% until 2020 | Analysis of internal and external mobility of teachers for each academic year | International Relations Office Board of Vice-Deans for Teaching Vice-Rector for education Deans and department heads | Vice-Rector for education | continuously |

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| | | Rector | | |
| Task 1.3.8. To harmonize the implementation of the program of pedagogy, didactics and psychology of education in the departments of Josip Juraj Strossmayer University of Osijek and the Academy of Arts in Osijek in the academic year 2014/2015 | Analysis of performance of the program of pedagogy, didactics and psychology at defined University constituents | Board of Vice-Deans for Teaching Vice-Rector for education Department heads | Vice-Rector for education | end of 2015 |
| Task 1.3.9. Establishment of the University Centre for Lifelong Learning | Established Centre for Lifelong Learning | Committee for preparation of studies Board of Secretaries Deans Vice-Rector for education Rector | Vice-Rector for education | 2015 |
| Task 1.3.10. Continuous improving of the quality of lifelong learning with a proposal of appropriate programs of shorter training (including various training programs for teaching and non-teaching staff) | New programs of lifelong learning and short courses | Centre for Lifelong Learning Board of Vice-Deans for Teaching Vice-Rector for education Deans and department heads Rector | Vice-Rector for education | continuously |
| Task 1.3.11. Improving the quality and availability of teaching through the development of <i>distance learning</i> programs in the next five years | Realized investments into development of <i>distance learning</i> programs | Vice-Rector for education | Vice-Rector for education | continuously |

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|--|---|---|---------------------------|---------|
| | | Vice-Rector for strategic and spatial planning Deans and department heads Rector | | |
| Task 1.3.12. Definition of regulations on lifelong learning | Regulations on lifelong learning | Board of Secretaries Committee for statutory and legal issues Vice-Rector for education Board of Vice-Deans for Teaching | Vice-Rector for education | 2015 |
| Task 1.3.13. Definition of regulations on non-formal and informal learning | Regulations on non-formal and informal learning | Board of Secretaries Committee for statutory and legal issues Vice-Rector for education Board of Vice-Deans for Teaching | Vice-Rector for education | do 2016 |

III.2. Scientific research activity

Strategic aim 2.:

To profile the University as a research university as of the criterion of scientific excellence. To participate in the establishment of criteria and measures to encourage and reward excellence in research within cooperation with other Croatian universities. In this sense, the quality of scientific research shall be brought to the higher level, where cooperation between scientists from different constituents of the University shall be emphasized. This Strategic aim is specified in the stated tasks related to papers, projects and postgraduate doctoral and specialist studies.

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|--|--|--|---------------------------|---------------------------------|
| Task 2.1. In order to achieve the <i>strategic aim 2</i> , special attention should be given to the quality and quantity of scientific papers at the University. In the next period, each year every University constituent involved in the STEM area, should strive to achieve the greatest possible number of published papers cited in the WoS, which will be at least the same as the number of FTE, and University constituent involved in the STEM area Social Sciences and Humanities should strive to achieve the greatest possible number of published papers cited in databases WoS or SCOPUS, at least the same as the number of FTE. | Data regularly entered into the database University News Data controlled on a three-month basis | Vice-Rector for science, technologies, projects and international cooperation (further in the text: Vice-Rector for science) Vice-Deans/deputies of department heads for science Department for science, technology, projects and programs (further in the text: Department for science) | Vice-Rector for science | continuously annually |
| Task 2.2. | Database included into the University News, updated on a three-month basis | Vice-Rector for science | Vice-Rector for science | continuously every three months |

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|--|---|---|-------------------------|-----------------------------|
| To develop a database of scientific and professional papers published by teachers and associates of the University of Osijek to be regularly updated every 3 months; The database should be public and accessible to a wider range of scientists | | International Relations Office | | |
| Task 2.3. In the next five years, scientists from the University should join at least one international scientific group | Data published at the University News | Vice-Rector for science Vice-Deans/deputies of heads for science Department for science | Vice-Rector for science | until 2019 |
| Task 2.4. To establish a database of scientific and professional journals published by the University constituents and to achieve a better international status of particular journal. To encourage the exchange of our journals with similar journals from other universities in the world | Database of scientific and professional journals published by the University constituents included in the University News, and updated on a three-month basis | Vice-Rector for science Vice-Deans/ deputies of heads for science Department for science | Vice-Rector for science | continuously tromjesečno |
| Task 2.5. To establish functional institutional system for supporting applications to program and funds of the European Union, as well as to provide logistic support for realization of international projects, especially for those realized within programs and funds of the European Union | Office for EU projects | Vice-Rector for science Vice-Deans/deputies of heads for science Deans and department heads Rector | Rector | end of 2015 |

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|---|---|--|-------------------------|---------------------------|
| Task 2.6. To increase the number of national and international research projects by 20% on average annually | Analysis prepared twice a year, based on the data entered into the portal University News | Vice-Rector for science Deans and department heads Department for science | Vice-Rector for science | continuously twice a year |
| Task 2.7. To increase number of projects in the STEM area by 10% annually, and in the Social Sciences and Humanities by 20%, as well as to increase financial value of projects with the economy sector, state government and local self-government units, with civil sector and non-governmental organizations | Analysis prepared twice a year, based on the data entered into the portal University News | Vice-Rector for science Vice-Deans/deputies of heads for science Department for science | Vice-Rector for science | continuously twice a year |
| Task 2.8. To prepare information system about active national and international projects, and open calls | Data available at the University News | Vice-Rector for science | Vice-Rector for science | end of 2014 |
| Task 2.9. At the University, standard licensed software and specialized software are in use (Statistica, Wolfram Mathematica, Matlab, Ephorus, Visual Studio, AdobeCreative Suite, CorelDRAW Suite). | Contracts on purchase of the licenses available at the beginning of each academic year | Vice-Rector for science Vice-Deans/deputies of heads for science, Department for science | Vice-Rector for science | continuously every year |
| Task 2.10. At the University, there are courses organized to train staff on the use of licensed software and scientific bases, and the portal University News shall regularly publish the information about the same | Information about trainings for using of licensed software available at the University News | Vice-Rector for science Department for science | Vice-Rector for science | continuously annually |

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| Task 2.11. Each year 30 job positions (1-3 per each University constituent) shall be opened for young scientists within scientific research projects or independent calls | Annual analysis | Vice-Rector for science Deans and department heads Department for science | Vice-Rector for science | continuously annually |
| Task 2.12. To take good care about young scientists | Annual analysis on state and perspective of young scientists at the University | Vice-Rector for science Deans and department heads | Vice-Rector for science | continuously annually |
| Task 2.13. To support development of existing and organization of new joint postgraduate doctoral studies at the University, at the level of several Croatian universities or at international level | Annual analysis based on data entered into the portal University News | Vice-Rector for science Vice-Deans for teaching Rector Department for science | Vice-Rector for science | continuously annually |
| Task 2.14. Within the postgraduate doctoral studies, cooperation shall be realized between the University and the industry / economy sector | Annual analysis based on data entered into the portal University News | Vice-Rector for science Vice-Rector for finances and business relations Deans, department heads Department for science | Vice-Rector for finances and business relations | continuously annually |
| Task 2.15. Within the postgraduate doctoral studies, new skills and competences shall be developed and recognized outside of the academic community and at the labor market | Overview of activities within postgraduate doctoral studies related to gaining of new skills and competences | Vice-Rector for science Vice-Deans/deputies of heads for science Department for science | Vice-Rector for science | continuously annually |

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| Task 2.16. To support development of existing and organization of new postgraduate specialist studies that ensure recognition of qualification in the national and European context | Annual analysis new postgraduate specialist studies | Vice-Rector for science Vice-Deans/deputies of heads for science Department for science | Vice-Rector for science | continuously annually |
| Task 2.17. Every year certain number of promotional activities shall be carried out at international, national and local level | Report on activities carried out, based on the data from the University News | Vice-Rector for science Vice-Deans/deputies of heads for science International Relations Office | Vice-Rector for science | continuously annually |
| Task 2.18. Continuous provision of information to the public about the activities of technology transfer office, business development unit and business incubator, and about projects of special interest to the University | Publishing of the newsletter <i>News from the Technology Transfer Office</i> | Tera Tehnopolis Ltd. | Editor in chief, director of Tera Tehnopolis Ltd. | Each month, except in August |
| Task 2.19. Education of scientific-teaching staff at the University about intellectual property rights | Periodic organization of educational programs and individual consultations on intellectual property rights | Tera Tehnopolis Ltd. in cooperation with University constituents | Principle investigator within one project Head of the University constituent, director of Tera Tehnopolis Ltd. | Education: periodically /per semester Consultations: As of the dynamics of project application |

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| Task 2.20. Protection and management of intellectual property of the University | Selection of appropriate strategy to protect intellectual property created at the University and commercialization of the results based on University Regulations | Tera Tehnopolis Ltd. in cooperation with University constituents | Principle investigator within one project, Head of the University constituents, Director of Tera Tehnopolis Ltd. | As of the dynamics of project realization |
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III.3. International and interuniversity cooperation

Strategic aim 3.:

To establish functional international cooperation, especially with the European Union and countries in the neighborhood, and to exchange experiences in teaching and the organization of joint studies, in joint projects and joint publication of scientific papers.

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|---|--------------------------------------|--|--|-------------------------------|
| Task 3.1. To renew partnership agreements on a regular basis, to create opportunities for new agreements, and in cases where cooperation is no satisfactory, propose termination of contracts | Analysis of partnership agreements | International Relations Office Vice-Rector for science Vice-Rector for education Deans and department heads Rector | Vice-Rector for education Vice-Rector for science | continuously annually |

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| Task 3.2. To encourage mobility of teachers, students and non-teaching staff within bilateral cooperation, Erasmus+ program and other programs of the European Union with the aim to increase the outgoing mobility for 10% annually | Annual analysis | International Relations Office Vice-Rector for science Vice-Rector for education Deans and department heads Rector | Vice-Rector for education Vice-Rector for science | continuously annually |
| Task 3.3. For each partner institution with which there is a formal cooperation agreement signed, at the portal of the University News information on current activities shall be regularly published. | Regular publishing of information at the portal University News | International Relations Office Vice-Rector for science | Vice-Rector for science | continuously annually |
| Task 3.4. To carry out activities referring to membership in the EUA, AARC and DRC and to join in some other important international networks and associations, such as the University Network of European Capitals of Culture (UNECC) and the European Association for International Education | Analysis of activities within international networks and associations | Vice-Rector for science Deans and department heads Rector | Vice-Rector for science | continuously annually |
| Task 3.5. To develop cooperation with student organizations at the University in the area of their international activities. News will be published regularly at the portal of the University News | Regular publishing of information at the portal University News | International Relations Office Vice-Rector for science | Vice-Rector for science | continuously annually |

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| <p>Task 3.6. The members of the <i>Erasmus Student Network</i> (ESN) shall be involved in the international activities of the University</p> | <p>Report on realization of the Erasmus mobility</p> | <p>International Relations Office Vice-Rector for science Vice-Rector for education</p> | <p>Vice-Rector for education</p> | <p>continuously annually</p> |
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III.4. University and surroundings

Strategic aim 4.:

To develop into a regional University with recognizable identity in the narrow regional and broader national and European context. To accomplish partner relations and cooperation with local community (city and county authorities) in the regional surroundings. To develop cooperation with the economy and civil sector and to become a leader in the economic and regional development.

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|--|---|--|---|-------------------------------|
| Task 4.1. Promotion of the University as recognized part of regional, county and city identity. Intensification of cooperation with city and county government | Annual report of the Rector | Rector Vice-Rectors Deans and department heads | Vice-Rector for finances and business relations | continuously |
| Task 4.2. | Established Office for public relations | Rector | Vice-Rector for finances | until 2016 |

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| To establish an office for public relations that will present work and values of the University | | | and business relations | |
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III.5. Human and material resources

Strategic aim 5.1.:

To take care about teachers, associates and administrative and professional staff at the University with respect to their education and quality of their knowledge and skills. To act towards reaching of an optimal ratio of teachers and students, to take care of equal representation of teachers in academic positions and of personal standard of staff and students.

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|---|---|---|---|-------------------------------|
| Task 5.1. Systematic monitoring of demands for human resources and projections of demands for the development purpose | Analysis of human resources with short-term and long-term projections | Vice-Rector for education Board of Vice-Deans for Teaching Deans and department heads Rector | Vice-Rector for finances and business relations | continuously |

Strategic aim 5.2.:

Analysis of current financial conditions, detection of critical costs at individual components (location, type, time of occurrence of the cost).
Systematic monitoring of incomes from its own activities.

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
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| Task 5.2.1. Systematic increase of income from projects financed by EU funds | Annual analysis of income to the University from projects, research results, professional services and other external sources of funding | Vice-Rector for finances and business relations, Deans and department heads Rector | Vice-Rector for finances and business relations | continuously |
| Task 5.2.2. Permanent increase of income from commercialization of research results | Annual analysis of income to the University from projects, research results, professional services and other external sources of funding | Vice-Rector for finances and business relations, Deans and department heads Rector | Vice-Rector for finances and business relations | continuously |
| Task 5.2.3. Increase of income from professional services and other external funding | Annual analysis of income to the University from projects, research results, professional services and other external sources of funding | Vice-Rector for finances and business relations, Deans and department heads Rector | Vice-Rector for finances and business relations | continuously |

III.6. Reconstruction and development of the University

Strategic aim 6.1.:

Completion of the Phase 2 of construction and renovation of the University campus until the end of 2016

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|---|---|---|--------------------------------------|-------------------------------|
| Task: 6.1.1. To obtain approval of the main project for the construction of the SKIMCO building by the end of 2014 | Approval of the main project for the construction of the SKIMCO building | Vice-Rector for development strategy and spatial planning (further in the text: Vice-Rector for development strategy) Department of Asset Management and Campus Construction | Vice-Rector for development strategy | end of 2014 |
| Task: 6.1.2. To obtain approval of the main project for the construction of traffic and pedestrian areas around the building of SKIMCO by the end of 2014 | approval of the main project for the construction of traffic and pedestrian areas around the building of SKIMCO | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | end of 2014 |
| Task: 6.1.3. To finish works on the design of the arrangement of the attic of the building of Faculty of Medicine Osijek on the campus by the end of 2014 | Finished arrangement of the attic in the building of the Faculty of Medicine Osijek on the campus | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | end of 2014 |

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| Task 6.1.4. To complete the new building of the Faculty of Civil Engineering in Osijek until the end of 2015 | Building of the Faculty of Civil Engineering in Osijek completed | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | end of 2015 |
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Strategic aim 6.2.:

Redefinition of the capital investments program for the Phase 3 of construction and renovation of the University in 2014 - 2020, and assurance of its monitoring and realization

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|---|---|--|--------------------------------------|-------------------------------|
| Task 6.2.1. To perform detailed analysis of the possibilities to realize Phase 3 of the reconstruction and development of Josip Juraj Strossmayer University of Osijek with regard to financial, functional and other conditions, according to the current conditions | Analysis of the possibilities to realize Phase 3 of the reconstruction and development of the University - report | Vice-Rector for development strategy Vice-Rector for finances and business relations Department of Asset Management and Campus Construction Department for finances, business relations, investments and construction | Vice-Rector for development strategy | end of 2015 |
| Task 6.2.2. Based on the analysis and the data collected, the Phase 3 of reconstruction and development of Josip Juraj Strossmayer University of Osijek shall be redefined as of the current project period (2014 - 2020) | Redefined Phase 3 of the reconstruction and development of the University - report | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | spring 2016 |

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| Task 6.2.3. To submit a project proposal of infrastructure projects for application to the European Regional Development Fund 2014-2020, and to include it in the indicative list of the Ministry of Science, Education and Sports | Project proposal | Vice-Rector for development strategy Department of Asset Management and Campus Construction Vice-Rector for finances and business relations Department for science, technology, projects and programs | Vice-Rector for development strategy | June 2014 |
| Task 6.2.4. To prepare documents related to changes and amendments to the urbanistic development plan to define landscaping of the plots in the western part of the University campus | Changed and amended Urbanistic development plan to define landscaping of the plot in the western part of the University campus | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | September 2014 |
| Task 6.2.5. To implement changes and amendments to the urbanistic development plan | Realized Urbanistic development plan | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | beginning of 2015 |
| Task 6.2.6. To monitor the implementation of preparatory activities as planned in the proposal of the structural project <i>Construction of the western part of Josip Juraj Strossmayer University of Osijek Campus</i> | <i>Construction of the western part of Campus - appendices</i> | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | continuously |

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| Task 6.2.7. To prepare a project for landscaping of the western part of the campus | Project for landscaping of the western part of the campus | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | end of 2015 |
| Task 6.2.8. To perform archaeological excavations on the plot of the building of the Faculty of Law in Osijek in the campus | Completed archaeological excavations on the plot of the building of the Faculty of Law in Osijek in the campus - report | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | end of 2015 |
| Task 6.2.9. To carry out public architectural competition for the preliminary design of the new building of the Faculty of Law Osijek and to prepare technical documentation for the construction by the spring of 2016 | Completed public architectural competition for the preliminary design of the new building of the Faculty of Law Osijek Technical documentation prepared | Vice-Rector for development strategy Department of Asset Management and Campus Construction Department of Public Procurement | Vice-Rector for development strategy | spring 2016 |
| Task 6.2.10. To perform archaeological excavations within the University campus for the purpose of arranging pedestrian and traffic areas and for the purpose of obtaining a decision on the derived condition | Report on archaeological excavations | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | June 2015 |
| Task 6.2.11. To obtain a decision on the derived condition of the buildings of student restaurant and kitchen, maintenance, | Decisions on the derived condition of the buildings: -student restaurant and kitchen -maintenance service -Academy of Arts in Osijek | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | spring 2015 |

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| Academy of Arts in Osijek and residential buildings in the Vatrogasna Street | -residential buildings in the Vatrogasna Street | | | |
| Task 6.2.12. To equip and open the building of the Faculty of Civil Engineering in Osijek | Equipped and opened building of the Faculty of Civil Engineering in Osijek | Vice-Rector for development strategy Dean of the Faculty of Civil Engineering | Vice-Rector for development strategy | end of 2015 |
| Task 6.2.13. To coordinate and perform activities for construction of the Student Pavilion (WBIF grant) | Construction plan for Student Pavilion – report on completed activities | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | end of 2016 |
| Task 6.2.14. To install outdoor elevator on the courtyard facade of the Rectorate and protect windows and courtyard facades | Installed outdoor elevator on the courtyard facade of the Rectorate Completed works for protection of windows and courtyard facades | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | spring 2015 |

Strategic aim 6.3.:

Implementation of preparatory actions and preparing technical documentation for capital investments in the next project period

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
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| Task: 6.3.1. To analyze the real needs, compliance with other strategic objectives, financial opportunities and other influential factors in order to create a priority list of capital investments at the University for the forthcoming project period | Analysis of financial opportunities for capital investments | Vice-Rector for development strategy Vice-Rector for finances and business relations Department of Asset Management and Campus Construction Department for finances, business relations, investments and construction | Vice-Rector for development strategy | continuously |
| Task: 6.3.2. To obtain confirmation of the main project of the University Centre in the Cardinal Alojzije Stepinac Street | Confirmation obtained for the main project of the University Centre in the Cardinal Alojzije Stepinac Street | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | 2016 |
| Task: 6.3.3. To appoint project teams with representatives of University constituents for planning of infrastructure investments and perform related works on preparation of projects for tenders for the development of technical documentation of construction / reconstruction (Faculty of Electrical Engineering Osijek and Faculty of Food Technology Osijek) | Appointed project teams with the Faculty of Electrical Engineering Osijek and Faculty of Food Technology Osijek Calls for preparation of technical documentation | Project teams at University constituents Vice-Rector for development strategy | Vice-Rector for development strategy | 2015 |
| Task 6.3.4. | Report on completed tasks | Project teams at University constituents | Vice-Rector for development strategy | Twice a year |

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| To regularly monitor preparatory activity and at least twice a year make an internal report on completed tasks | | Department of Asset Management and Campus Construction Vice-Rector for development strategy | | |
| Task 6.3.5. To conduct regular analysis of the rational management of real estate owned by Josip Juraj Strossmayer University of Osijek, in line with specific strategic aims | Analysis of options Decision about selling of properties or their lease (renting) | Vice-Rector for development strategy Department of Asset Management and Campus Construction Department for finances, business relations, investments and construction | Vice-Rector for development strategy | continuously |
| Task 6.3.6. To undertake preparatory activity for the project Medico Polis at the plot in the Josip Reihl-Kir Street in Osijek | Overview of activities undertaken to reach the aim (current condition, design project, agreements, etc.) | Vice-Rector for development strategy Department of Asset Management and Campus Construction | Vice-Rector for development strategy | end of 2016 |

III.7. Quality assurance system

Strategic aim 7.1.:

Strengthening of efficient organizational structure for the implementation of the activities of quality management systems at all levels

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|--|---|--|--|-------------------------------|
| Task 7.1.1. To permanently improve quality assurance system at the University | <i>Manual on Quality Assurance – revised version</i> Certificate system ISO 9001 | Committee for quality University Centre for quality assurance | President of the Committee for quality | continuously |
| Task 7.1.2. Prepare and adopt the Strategy on quality assurance system as a constituent part of the <i>University Strategy</i> | <i>Strategy of the University Quality Assurance System</i> | Senate of the University Committee for quality University | President of the Committee for quality | 2014 |
| Task 7.1.3. To harmonize documents related to quality assurance system at the level of University and University constituents | Harmonized documents of the University and the University constituents | Centre for quality assurance | Head of the Centre for quality | continuously |

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| Task 7.1.4. To appoint staff dealing with quality assurance system at all University constituents | Staff involved in the quality system appointed at all University constituents | University Management Deans | Deans | 2015 |
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Strategic aim 7.2.:

Improving the level of development and efficiency of the quality assurance system according to all criteria of the *Standards and guidelines for quality assurance the European higher education area (ESG)*

| <i>Task</i> | <i>Result – indicator of success</i> | <i>Implementing body</i> | <i>Responsible person</i> | <i>Time of implementation</i> |
|--|--|--|--------------------------------|-------------------------------|
| Task 7.2.1. To implement measures for improvement of the quality assurance system based on an external audit | <i>Manual on Quality Assurance</i> Workshops, best practices Final report about external audit | Centre for quality assurance Committee for quality | Head of the Centre for quality | continuously |
| Task 7.2.2. To improve communication channels between the University (Committee, Centre) and the University constituents (offices, boards) | Harmonized annual plan of activities to be completed by the Centre and Quality assurance offices at University constituents Meetings of the Centre and office representatives | Centre for quality assurance Offices for quality at University constituents | Head of the Centre for quality | continuously |

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| Task 7.2.3. To improve the level of development of all criteria referring to ESG standards | Improved visibility of the system (informing of the public) Inclusion of science in the system of quality assurance (procedures) | Centre for quality assurance Offices for quality at University constituents | Head of the Centre for quality | continuously |
| Task 7.2.4. To define learning outcomes within study programs/courses at all University constituents | Defined learning outcomes at all University constituents Completed workshops on learning outcomes at all University constituents | Centre for quality assurance Management of University constituents Vice-Deans for teaching | Management of University constituents | 2015 |
| Task 7.2.5. To set up a database on students/potential employees | Database of graduates Round tables and discussions for potential employers <i>Career days</i> at University level | Centre for quality assurance Offices for quality at University constituents | Head of the Centre for quality | 2015 |
| Task 7.2.6. To revise documents and elements of quality assurance system | Five-year report on functioning of the system with guidelines for its revision | Committee for quality Centre for quality assurance | Head of the Centre for quality | 2016 |

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