



Josip Juraj Strossmayer University of Osijek

**Faculty of Agrobiotechnical
Sciences Osijek**

FACULTY DEVELOPMENT STRATEGY

**2018/2019
-2022/2023**

Osijek, 2019



Josip Juraj Strossmayer University of Osijek
Faculty of Agrobiotechnical Sciences Osijek

Development Strategy

of the Faculty of Agrobio-
technical Sciences Osijek

2018/2019 - 2022/2023

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Development Strategy of the Faculty of Agrobiotechnical Sciences Osijek (abbreviation used further in the text: the Faculty or FABSOS) was prepared by the Committee that consisted of the following members:

1. Prof. Dr. Krunoslav Zmaić
2. Prof. Dr. Zdenko Lončarić
3. Prof. Dr. Zvonko Antunović
4. Prof. Dr. Vlatka Rozman
5. Assoc. Prof. Dr. Mato Drenjančević
6. Prof. Dr. Domagoj Rastija
7. Prof. Dr. Tihomir Florijančić
8. Prof. Dr. Mirta Rastija
9. Prof. Dr. Ružica Lončarić
10. Prof. Dr. Mirjana Brmež
11. Assoc. Prof. Dr. Ivan Plaščak
12. Assoc. Prof. Dr. Tihana Sudarić
13. Renata Meleš, LL.M.
14. Mato Božić, MEng, Novi Agrar Ltd.
15. Assist. Prof. Dr. Ivana Rukavina, Croatian Agency for Agriculture and Food
16. Dominik Razman, student
17. Krešimir Žnidarec, student

In addition to the above-mentioned Committee members, all FABSOS departments and all Faculty Council members were invited to contribute to drafting of this document by giving their suggestions and comments, all with the aim of achieving the best possible quality of this document.

The Faculty Development Strategy 2018/2019 - 2022/2023 was adopted at the 6th session of the Faculty Council in the academic year 2018/2019, held on 9th April 2019.

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FOREWORD

Referring to the field of biotechnical sciences and the area of agriculture, the Faculty of Agrobiotechnical Sciences Osijek (FABSOS) is a leading scientific research institution in Eastern Croatia.

During its past developments, the Faculty has achieved significant success in the education of students and high-quality professional staff, as well as in scientific and professional projects. It has also developed successful cooperation with the economy sector. As of present times, it keeps the continuity in the strengthening of scientific and teaching activities, and puts an emphasis on the transfer of knowledge and technology to the economy sector.

Nowadays, the Faculty is a modern institution of higher education that performs quality education in line with the Bologna Process at all three levels of university studies. The study programs offered by the Faculty are based on up-to-date scientific knowledge achieved in the field of biotechnical sciences and in the area of agriculture. Apart of the university undergraduate, graduate and postgraduate studies (doctoral and specialist studies), the Faculty also carries out professional studies and lifelong learning programs in the area of agriculture.

The Faculty's value is reflected not only in tradition and in high quality of teaching and research, but also in the excellent infrastructure, human capacities and students. Within its 58 years of existence, the Faculty is also the oldest constituent unit of the University of Osijek.

Scientific research activity at the Faculty of Agrobiotechnical Sciences Osijek is focused on the development of research within the field of biotechnical sciences and the area of agriculture, as well as within the interdisciplinary area. The obtained research results are applied in various scientific-research projects, as well as in cooperation with economy sector and Slavonian county authorities, which primary business is connected with agriculture and food production. In this way, the Faculty fosters a quality cooperation and implementation of knowledge in solving of problems in agricultural production.

FABSOS Development Strategy for the period 2018/2019 - 2022/2023 is based on extensive experience in carrying out of studies related to agriculture, on valuable results achieved within scientific and professional projects, on the Faculty's Strategic Development Goals for 2011/2012 – 2015/2016, as well as on the Faculty Action Plan 2014-2018. In addition, the FABSOS Development Strategy is in line with the realistic assessment of the Faculty's developmental capabilities, by emphasizing at the same time its particularities.

This strategic document defines the development aims that the Faculty needs to achieve in the forthcoming period, which will assure accomplishments of the set mission and vision in the field of agriculture of this region. As outlined in this document, FABSOS defines its basic strategic aims as follows: constant improvement of quality related to the teaching process, research and professional work, efficient transfer of knowledge and technology to the economy sector, improvement of business processes and quality assurance system, and development of infrastructure.

By focusing on the accomplishments of the defined goals, FABSOS also realizes that some deviations in their realization are possible, which will be addressed in the preparation of the annual action plans, so that detailed measures will be further used to determine the way of achieving the strategic goals.

Dean of the Faculty of
Agrobiotechnical Sciences Osijek

Prof. Dr. Krunoslav Zmaić



1. INTRODUCTION

1.1. History of the Faculty of Agrobiotechnical Sciences Osijek

Higher education in the area of biotechnical sciences in Eastern Croatia began in 1960, when teaching was organized within the Higher Agricultural College in Osijek, which was a constituent part of the University of Zagreb. In 1970, the Higher Agricultural College changed its name to become the Faculty of Agriculture and Food Technology, and in 1975, it transferred to the University of Osijek as its constituent unit. In 1976, the Faculty changed its name again, and registered as the Faculty of Agriculture. This was followed by integration of the Faculty into the Biotechnical Science and Teaching Center, which comprised other institutions, namely the Faculty of Food Technology, the Agricultural Institute, the Sugar Beet Institute and the Fruit Nursery Garden. In 1977, the Faculty integrated with the Higher Agricultural College in Vinkovci and reorganized its study programs. The first postgraduate study in Plant Protection and Agricultural Products was organized by the Faculty in 1972.

In the period of 1977-1991, the Faculty of Agriculture in Osijek was operating in its new building on the Tenja Road, and this period marked a new phase in the Faculty's development. The Faculty had at its disposal more than 4,000 sq. m. of new laboratory space, as well as classrooms and other premises, which significantly contributed to the improvement of study conditions and intensification of the scientific and professional work.

The following period from 1991-1995 will remain deeply embedded in the history of the Faculty's development as the most difficult one, since the Faculty building was completely destroyed and devastated. During the Homeland War, as well as in the post-war years until 1995, the Faculty was operating at several locations scattered around the city of Osijek, and since 1995, it found its seat in the building of the former General Barracks in the Osijek Old Town. The process of Faculty complete infrastructure reconstruction consisted of spatial organization, equipping of lecture halls, laboratories, library, IT cabinets and other premises, both at the main Faculty building in the Osijek Old Town and in Vinkovci, where the Faculty was delivering its professional study programs.

In October 2011, the Faculty moved its seat to a modern building located at the University campus in the Osijek Downtown, in the Vladimir Prelog Street, where it is operating until present.

As of 23 July 2018, the Faculty of Agriculture changed its name to the Faculty of Agrobiotechnical Sciences Osijek. The new name of the Faculty is based on achieved criteria in the field of biotechnical sciences, having a dominant prefix put on the scientific area of agriculture and related branches, and following the tendency of interdisciplinary ties with the scientific fields of biotechnology and forestry. The support to this fact was also found in significant scientific production outside the scientific area of agriculture, both in biotechnology and forestry, as well as in natural sciences, biomedicine and health, social and technical sciences. The change of Faculty's name represents a new driving force for its faster development and for the regain of the agricultural profession value, as set in the Faculty mission and vision. There are profession and qualification standards prepared within the Croatian Qualifications Framework project in the academic year 2015/2016. New study programs in agriculture and biotechnology, as well as in ecology and environmental protection have been organized. As of time being, there is an elaboration being prepared to establish a new study program in Forestry and Nature Protection.

1.2. Faculty of Agrobiotechnical Sciences Osijek today

1.2.1. Faculty's organizational structure

Nowadays, the Faculty of Agrobiotechnical Sciences Osijek is a modern higher education institution that provides quality education within all levels of university studies (undergraduate, graduate and postgraduate studies, as well as professional studies). It carries out study programs based on recent scientific knowledge and organizes scientific research and professional work in the field of biotechnical sciences and agriculture. It also strongly focuses on interdisciplinary research in the field of biotechnology and forestry, natural sciences, biomedicine and health, social and technical sciences.

In its new premises in Osijek, the Faculty spreads on 19,000 square meters of modern spaces that are adapted for scientific and teaching purposes. It has all necessary accompanying infrastructure at disposal, thus following all up-to-date European standards for spatial requirements in higher education institutions. In the Faculty's main building in Osijek, there are 43 laboratories, 27 practice halls, 8 lecture halls (with 50 seats per lecture hall), 3 great halls (one with 350 seats and two with 143 seats), 123 teachers' rooms, Dean's Office, meeting rooms, library, printing room, premises used by joint services and two suites for accommodation of visiting teachers. The Faculty organizes studies also in the city of Vinkovci, in a building situated at the address Gensherova 16, by housing a space of 6,000 square meters, of which the main building spreads on 2,097 square meters and provides 4 classrooms, 5 laboratories, an IT room, 15 teachers' rooms, meeting room, library, open facilities used by joint services and students, as well as 3 practice halls and a hall for agricultural machinery.

Since the academic year 2011/2012, the Faculty owns 3.3 hectares of land located in Mandićevac near the city of Đakovo. There is a vineyard used as a demonstration site for winemaking and wine experiment station. The Faculty has been also allocated about 52 hectares of agricultural land in the municipality of Tenja and 8.2 ha in the area of Antunovac municipality, both of which will be used as experimental stations within the project "Research and Development BioPark for Hunting, Fisheries and Beekeeping". The mentioned surfaces of the experiment stations are used for practical teaching and carrying out of scientific-research and professional work.

FABSOS is a constituent unit of Josip Juraj Strossmayer University of Osijek, which has founding rights over the Faculty, as defined by the provisions of the Act on Scientific Activity and Higher Education and the University Statute. The Faculty is registered in the Court Register and in the Register of Higher Education Institutions of the Ministry of Science and Education.

Organizational structure of the Faculty is overviewed in the Figure 1. As presented, the Faculty is managed by the Dean, four vice-deans and Faculty's academic secretary. At the Faculty, there are 6 departments, 30 chairs and 5 central laboratories and its sub-units, library, the Center for lifelong learning, an experiment station and central administration with its 12 offices. Faculty departments form the organizational units that coordinate research and teaching activities. Each Faculty department is a sort of nucleus of educational, scientific-research and professional work in its particular field or branch.

As of time being, the Faculty employs 224 staff, of whom 34 staff are elected to the title of full professor in tenure, 16 of them are full professors, 27 are associate professors, 20 employees are appointed assistant professors. Furthermore, the Faculty employs 19 research assistants and 10 postdoctoral students, 1 lecturer and 6 senior lecturers, 23 professional associates, 19 laboratory technicians, and 50 administrative and maintenance support staff members.

The Faculty Council consists of all employees elected to the titles of full professors in tenure, all full professors, associate professors and assistant professors, then two representatives elected among teachers with teaching titles, three representatives elected among associates elected into associate titles, one representative of other staff members employed at the Faculty on the basis of employment contract, as well as representatives of students (making at least 15% of the total number of the Faculty Council members). The Faculty Council usually assembles once a month and all sessions are chaired by the Dean.

Within the Faculty Council, there are permanent boards and committees established as follows:

- Board for science;
- Board for final bachelor papers;
- Board for master theses;
- Board for publishing activities;
- Committee for teaching;
- Committee for the doctoral degree award;
- Committee for postgraduate specialist studies,
- Committee for verification of academic advancement eligibility;
- Committee for quality assurance;
- Committee for general issues;
- Committee for development and organization of experiment stations;
- Academic faculty and staff awards committee;
- Ethics committee.

Apart of the permanent boards, committees other bodies, at the Faculty there are also non-permanent committees, such as Advisory board for international issues; Committee for cooperation with the economy sector and innovations; Committee for Faculty promotion; Animal Ethics Committee, Committee for recognition of mobility programs, Program council of the Center for Lifelong Learning, etc.

The Faculty management structure ensures that students and employees participate in the decision-making processes. Students are also members of the most Faculty boards and committees.

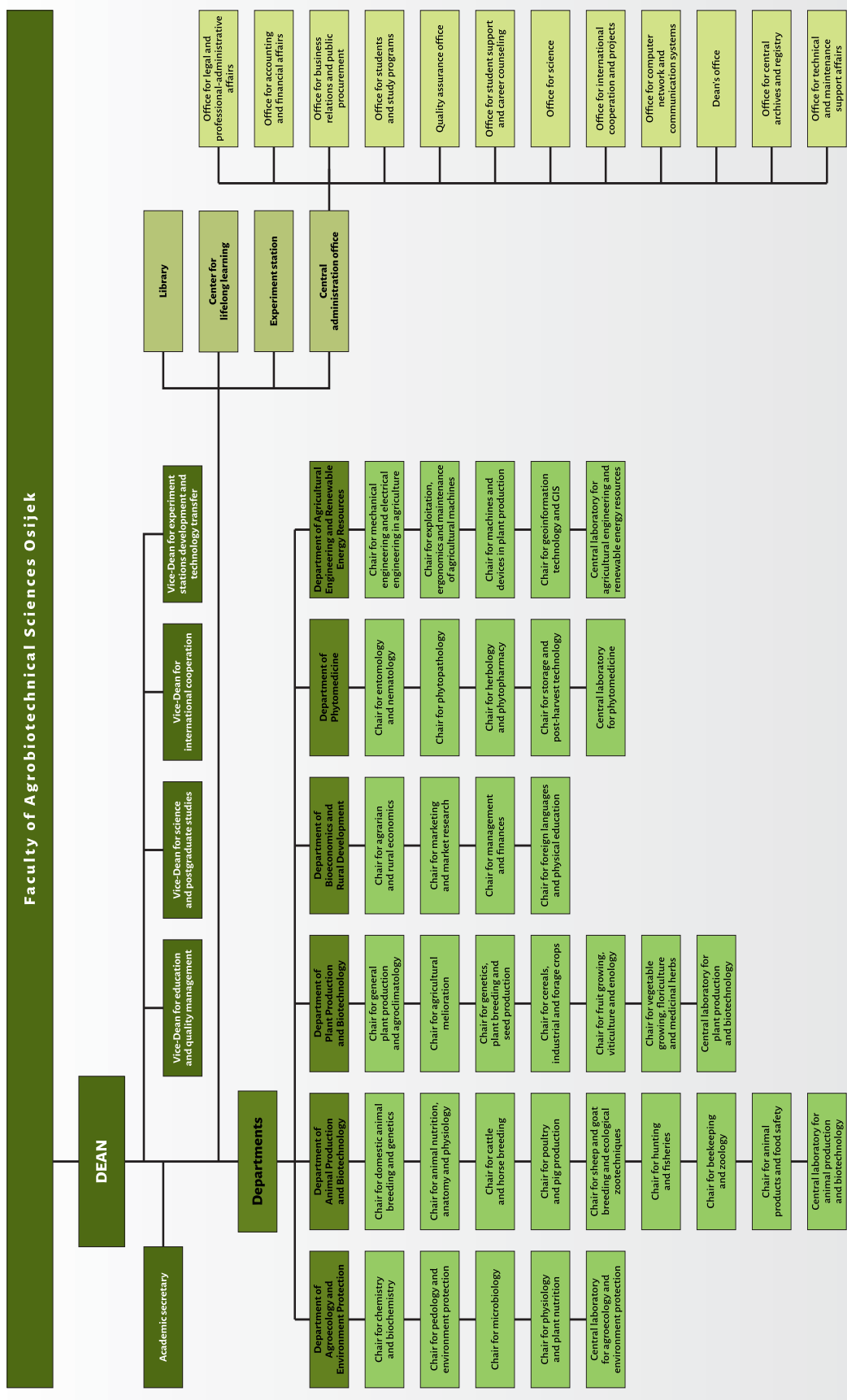


Figure 1. Faculty's organizational scheme

1.2.2. Teaching activity

Since the academic year 2005/2006, the Faculty of Agrobiotechnical Sciences Osijek carries out teaching activities within the undergraduate, graduate and postgraduate university studies, as well as undergraduate professional studies, all in accordance with the Bologna Declaration and the European Credit Transfer System (ECTS).

The following FABSOS study programs are entered in the Register of study programs at the Ministry of Science and Education of the Republic of Croatia:

- Undergraduate university study program in Agriculture with five modules (Agroeconomics, Plant Production, Zootechniques, Horticulture, Mechanization);
- Undergraduate professional study programs in Agrarian Entrepreneurship, Plant Production module Crop Production; Mechanization in Agriculture and Zootechniques);
- Graduate university study consists of seven study programs and nine modules ((Agroeconomics; Plant production (Plant production, Plant Nutrition and Soil Science, Plant Selection and Seed Production, Plant Protection); Organic Agriculture; Mechanization; Vegetable and Flower Growing; Fruit production and viticulture (Viticulture and Wine-making, Fruit growing) and Zootechniques (Nutrition of Domestic Animals, Hunting and Beekeeping, Special Zootechniques));
- Postgraduate specialist study provides five study programs (Quality and Safety of Animal Products; Production systems in Livestock Breeding; Pig Breeding, Farm management and Plant Protection); and
- Postgraduate university doctoral study program in Agricultural Sciences, offers eight modules (Agroeconomics; Agrochemistry; Animal Nutrition and Feed Technology; Hunting and Cynology; Plant Selection and Seed Production; Livestock Breeding; Technical Systems in Agriculture and Plant Protection).

As of time being, there are 1481 students enrolled at the Faculty's study programs, of whom 641 are undergraduate students, 490 are graduate students, 180 students are enrolled at undergraduate professional studies, 145 students are enrolled at postgraduate doctoral study, and 25 students are enrolled at postgraduate specialist study.

Within the call for project proposals "Improving quality in higher education with the application of the Croatian Qualifications Framework", the Faculty was awarded the project "Improvement of quality and implementation of Croatian Qualifications Framework (CROQF) to undergraduate university studies in Agriculture", and since 2015 it has been developing the standards of profession and qualifications for existing and new university undergraduate study programs in Agriculture.

The Faculty has also adopted an action plan to attract national and international students. This action plan is based on the provision of modern study programs, improvement of teaching facilities and teaching staff and on efficient teaching models.

The action plan is also focused on development of attractive study programs that are in line with the labor market needs, as well as economy and public services requirements. In accordance with the all above mentioned, the Faculty has been successful in getting the support from the Ministry of Science and Education for the project referring to internationalization of higher education and development of an English-taught graduate study of ICT in Agricultural Sciences. It should be emphasized that the Faculty is currently working on the feasibility study to assess the need of organizing a new study program in Forestry and Nature Protection.

Over the past five years, the Faculty staff have been efficient in publishing the university textbooks and manuals. There are 15 university textbooks and 14 manuals published over the 5-year long period and all of them are of immense value in the teaching process. Since these publications provide numerous answers to issues in various professional fields, students use them for preparation of exams.

1.2.3. Scientific activity

Scientific research activity at the Faculty of Agrobiotechnical Sciences Osijek has a long tradition. In the last five years referring to the period 2014-2018, the Faculty employees published 577 scientific and review papers, of which 298 have been published in journals indexed in the Web of Science Core Collection (WoS). In addition, Faculty employees have published 413 papers in conference proceedings. In the referral period, Faculty employees published 990 papers in total. The analysis of publications indexed in the WoS database shows that Faculty employees published 22 papers in the Q1 quartiles and 25 papers in the Q2 quartiles with a total of 505 citations. The Faculty's average h-index reaches 13. In the observed period, there are 110 papers indexed in the Scopus database, with a total number of citations amounting to 133, and the Faculty's h-index is 6. In the same period of 5 years, the CAB Abstract database indexed 148 scientific papers published in journals and 286 papers published in conference proceedings.

Faculty staff have been very active in developing and implementing various scientific-research and professional projects. The number of scientific projects performed by the Faculty has been continuously increasing over the years, and recently there are also many international projects reflecting the Faculty's orientation towards internationalization. In the past five years, the Faculty staff have completed or still work on 5 scientific research projects that are supported by the Croatian Science Foundation, 21 so-called VIP research projects that are funded by the Croatian Ministry of Agriculture, 11 research projects that are funded by the University of Osijek, one Horizon2020 scientific project, 4 bilateral projects and 4 projects that are realized in cooperation with the European partner institutions. All these projects that the Faculty got involved in during the past five years are an outcome of continuous development of laboratories and scientific equipment, as well as systematic recruitment of assistants and young researchers who excel in their scientific activities and profile themselves as a new driving force of the Faculty.

There are 145 students enrolled at eight modules of the Doctoral study program of Agricultural Sciences, which number refers to 10% of total number of students studying at the Faculty. Postgraduate specialist studies are enrolled by 25 students, referring to 2% of total number of students. In the stated period of five years, the doctoral study was completed by 40 students who defended their dissertations and obtained a PhD title, while in the same period, specialist study program was completed by 7 students.

Faculty employees are also working in the centers of excellence, precisely in the Scientific Center of Excellence for Personalized Health Care, and in the Scientific Center of Excellence for Biodiversity and Molecular Plant Breeding. Both centers are dealing with research in the interdisciplinary area of biotechnical and biomedical sciences.

FABSOS organizes numerous national and international scientific symposia, of which the most important is the International Symposium on Agriculture. Other symposia and conferences that should be mentioned are Krmiva, Agriculture in Nature and Environmental Protection, Animal Science Days, Current Issues in Agricultural Mechanization, etc.

In cooperation with the Agricultural Institute of Osijek, the Faculty publishes the Scientific Journal "Agriculture", in which it presents scientific and professional papers in all fields of agronomy. Papers published in this journal are cited in the following databases: Web of

Science Core Collection (WoS), CAB Abstract, SCOPUS, Directory of Open Access Journals (DOAJ), Portal of Croatian Scientific and Professional Journals – HRČAK, and in the database of the National and University Library in Zagreb.

In the last 5 years, FABSOS employees have received numerous awards, of which we would like to emphasize the 2015 National Science Awards, being presented in the categories of the Lifetime Achievement Award and the Annual Award for Popularization and Promotion of Science in the Biotechnical Sciences, as well as the Annual Award for Science in the Biotechnical Sciences for the years 2016 and 2017.

Over the past eight years, the Faculty is traditionally organizing numerous events for the purpose of science popularization. Some of such events are the Open Door Days and the Science Festival, as well as the PhD Day, Workshops for doctoral dissertation mentors, Young Researchers' Day, etc.

1.2.4. Professional activity

Over the past five academic years, FABSOS employees achieved very good results in various professional activities, of which it is worth to mention that there were 14 professional international projects carried out at the Faculty in the stated period. Furthermore, there was a significant number of professional national projects, such as 19 county projects realized in cooperation with Slavonian counties' authorities. In the stated period, the Faculty completed 108 agricultural projects in cooperation with the economy sector and the Faculty employees published 54 professional papers.

Through performing research activities and educating agronomists and experts in agriculture, FABSOS continuously contributes to the development of specific knowledge and skills required for lifelong learning, thus contributing greatly to social progress and development of community.

The Faculty is also implementing five lifelong learning programs, and two new lifelong learning programs are about to start with the beginning of the current academic year. As having been monitoring the labor market trends and needs of the economy sector, the Faculty dedicates itself to offer new lifelong learning programs continuously.

Important professional activity of the Faculty is related to the provision of laboratory analysis and other expert services. In particular, we emphasize the laboratory analysis services provided by the Department of Agroecology and Environment Protection, within which there is the central laboratory for soil fertility analysis.

This Faculty Development Strategy puts a special focus on the cooperation with the economy sector in the segment of knowledge and technology transfer. Although the economic situation in Eastern Croatia is currently quite difficult, the Faculty employees still do its best in achieving good results in this area of cooperation. In the future, the Faculty will certainly encourage cooperation with the economy sector in order to intensify joint projects and new contracts, which shall facilitate greater transfer of scientific knowledge into practice, and boost innovations and patents.

In addition, Faculty employees are very active in giving expert lectures and presenting their achievements to public through media, all with the aim to popularize agricultural profession.

The Development Strategy also foresees the intensification of the Alumni Club activities. Since the Alumni Club gathers significant number of members, it represents a great platform for stronger connections between FABSOS and the economy sector.

1.3. Overview of strategic elements according to the defined action areas

The most important segments of the Faculty's operations are integrated into main goals defined for the long-term strategic development in a broader context. Thus, the Faculty Development Strategy for the period 2018/2019 - 2022/2023 divides the Faculty development activities into five strategic areas, as follows:

1. Organization of work and improvement of work process quality
2. Teaching activity and students
3. Scientific-research activity
4. International relations
5. Cooperation with economy sector and transfer of knowledge and technology

Each strategic area determines specific strategic aims and corresponding measures, sets the real-time implementation framework, defines measurability process, specifies the authorities and bodies in charge for the execution of activities to accomplish the set goals, and describes the performance indicators.

2. MISSION AND VISION OF THE FACULTY

Faculty of Agrobiotechnical Sciences Osijek has clearly defined its mission and vision, both of which have been significantly contributing to the definition of the Faculty Development Strategy aims to be accomplished in the period referring to the academic years 2018/2019 - 2022/2023.

2.1. Mission

Mission of the Faculty of Agrobiotechnical Sciences Osijek is focused on assuring sustainable development through providing high-quality education based on modern learning outcomes, on lifelong learning concept, and on the training of highly qualified experts. Scientific activity is based on the development and strengthening of basic, applied and developmental research for the purpose of acquiring new knowledge and ideas relying on critical reflection and creativity. The Faculty enables students to acquire competences based on contemporary scientific findings through the transfer of knowledge and technologies, through active cooperation with the economy sector and partnerships for community development. The Faculty encourages the development of the economy and wide social community by its active involvement into the European Research Area and the European Higher Education Area.

2.2. Vision

As a leading research and higher education institution in the field of biotechnical sciences in the region, the Faculty of Agrobiotechnical Sciences Osijek will be developing its scientific and educational profile that shall be well recognized at international level. Until 2025, the Faculty shall gain recognition in biotechnical and interdisciplinary scientific areas of research, within which it will achieve excellence at international level and get actively involved in the European Research Area (ERA), all for the purpose of profiling itself as a biotechnical center of excellence for knowledge and technology transfer to the economy sector.

3. SWOT ANALYSIS OF THE FACULTY

STRENGTHS

- long tradition and rural environment
- the greatest number of scientific-teaching staff if compared to other University units
- clear structure of organization and management of the Faculty
- almost complete performance of the teaching process by the Faculty teaching staff
- optimal teacher-student ratio
- significant number of relatively young scientific-teaching staff
- many professional projects
- extensive international experience of scientific-teaching staff
- well equipped lecture halls with IT devices and teaching aids
- involvement of scientific and teaching staff in professional and organizational bodies at the local and national level
- study programs are structurally comparable with the study programs offered by other agricultural faculties in the EU
- some employees are guest lecturers at the universities in Bosnia and Herzegovina and are involved in teaching at all study levels
- a large number of published scientific and professional papers, many participations in national and international conferences, and application of research results in practice
- signed agreements on cooperation with agricultural faculties and universities in the EU and in the countries of Southeastern Europe
- significant interest of students and staff for participation in Erasmus+ and CEEPUS individual mobility programs
- successful long-term interdisciplinary scientific cooperation with other University constituent units and with the Agricultural Institute
- experience in organization of national and international scientific and professional conferences and courses
- publishing of the Agriculture Scientific Journal that is indexed in the WoS and SCOPUS database
- involvement of student representatives in all activities and all decision-making processes of many Faculty bodies
- ownership of collections and teaching models
- ownership of experimental stations and agricultural land (about 63 ha)
- organization of trainings, technology transfer and preparation of expert studies to stimulate economic development at local, regional, national and international level

WEAKNESSES

- experiment stations are not well equipped
- insufficient number of employed assistants, laboratory assistants and technicians
- mismatch in the teaching process, overload of teachers with teaching and overlapping of contents in teaching modules
- lack of professional administrative support for development and application of European competitive projects
- small number of research projects applied for funding
- small number of published papers with high impact factor (quartiles Q1 and Q2)
- research teams do not have defined strategies, concepts and structure
- not enough own literature available online on the Faculty website
- modest library fund and partly insufficient literature for exam preparation
- modest funds for publishing activities
- not enough organized lifelong learning courses and studies
- low interest of Faculty staff to engage in Faculty activities which are not directly related to scientific-teaching work
- insufficient cooperation between Faculty departments and chairs
- insufficient cooperation with the economy sector
- lack of information about students after their graduation
- not enough foreign visiting professors involved in teaching
- weak Faculty activity at international level, lack of English-taught studies and inability to admit international students
- small number of students enrolled at individual graduate studies, i.e. too many graduate studies open for enrollment
- insufficient equipment of certain laboratories
- difficulties in development of new fields within the biotechnical sciences
- misbalances in number of employees elected to the scientific-teaching titles in some branches of Agriculture
- not enough registered patents and innovations
- weak involvement of students in the Faculty activities.

OPPORTUNITIES

- reorganization of studies in accordance with the labor market trends
- obtaining a CROQF label for study programs according to profession and qualification standards
- organization of studies taught in English language
- intensification of cooperation with economy sector
- intensification of teaching performed by visiting foreign professors for the purpose of raising the quality of teaching and providing students information about the recent scientific achievements
- development of experiment stations and improvement of quality of practical teaching and multiannual experiments
- introduction of a mentoring system and better monitoring of students' progress during their studies
- involvement in interdisciplinary projects and EU-funded projects (Horizon2020)
- accreditation of laboratories and stronger market orientation
- promotion of the Faculty at national and international level, preparation of promotional materials and creation of a new website
- stimulation of research activities by establishing of quality research teams
- increasing the citation of papers published in the Agriculture Journal
- availability of electronic teaching materials to students
- preparation of the work plans for employees in order to better organize scientific and professional projects carried out at the Faculty departments
- production, patenting and branding of agricultural food products produced by the Faculty
- development of the e-learning platform

THREATS

- difficult employability of students after graduation
- opening of a large number of polytechnics that offer biotechnology studies
- increasing competitiveness of the agricultural faculties from other EU countries
- constant reduction of state investments in higher education
- neglecting of agriculture as a strategic branch
- extinguishing of secondary agricultural schools and agricultural programs, as well as reduced interest of secondary-school-leaving students for university studies in the area of agriculture and biotechnology
- insufficient level of previous knowledge of freshman students
- unrecognized value of agricultural profession on the labor market
- difficult employability of young researchers
- lack of funds for establishment of experiment stations
- migration of population from rural to urban areas and emigration



4. FACULTY STRATEGIC AIMS FOR 2018/2019 - 2022/2023

4.1. Organization of work and improvement of work process quality

Overall aim: Assurance of quality in systematic management of the Faculty, increase of Faculty's attractiveness and visibility, provision of conditions for field research and teaching, and raising the level of Faculty administrative staff competences shall lead to more efficient organization of work and to improvement of work processes, thus enabling stronger positioning of the Faculty at the labor market.

Strategic aim 1. Assurance of quality in systematic management of the Faculty

Measure 1.1.	Improvement of the work efficiency within the existing Faculty organizational structure
Executive authorities:	Dean, Vice-Deans, Faculty Council, Heads of Faculty departments, Head of the Central administration office; Committee for quality assurance
Implementation deadline:	end of 2022
Performance indicators:	<ol style="list-style-type: none"> 1. Organized workshop on improvement of the existing organizational structure at the Faculty 2. Organized workshop on standardization of work and division of working time in line with the new National Collective Agreement for Workers 3. Established system for evaluation of the work quality and improvement of business ethics 4. Established work environment that supports motivation of workers

Strategic aim 2. Increase of the Faculty's attractiveness and visibility

Measure 2.1.	Development of a new Faculty's website and preparation of promotional materials
Executive authorities:	Dean, Vice-Deans, Heads of Faculty departments, Head of the Central administration office, Head of the Office for computer network and communication systems
Implementation deadline:	end of 2019
Performance indicators:	<ol style="list-style-type: none"> 1. Developed and launched Faculty's new website 2. Selected proposals for various promotional materials, promotional materials printed 3. Adopted new visual identity of the Faculty

Measure 2.2.	Expanding the Faculty's influence through clear promotion of its particularities in all its fields of action
Executive authorities:	Dean, Vice-Deans, Faculty Council, Heads of Faculty departments, Head of the Central administration office
Implementation deadline:	end of 2020; continuously
Performance indicators:	1. Defined Faculty's particularities in all its fields of action 2. Prepared action plan for promotion of the defined activities

Measure 2.3.	Activation of the Alumni Club
Executive authorities:	President and secretary of the Alumni Club
Implementation deadline:	end of 2019; continuously
Performance indicators:	1. Organized workshops and other gatherings of the Alumni Club members 2. Prepared annual reports on the activities performed by the Alumni Club 3. Developed database of alumni club members, assessed companies' needs for the Faculty's services and continuous monitoring of the labor market trends

Strategic aim 3. Provision of conditions for realization of the field research and teaching

Measure 3.1.	Empowering the work of existing experiment stations and forming new ones
Executive authorities:	Dean, Vice-Deans, Committee for development and organization of experiment stations, Heads of Faculty departments, experiment stations coordinator
Implementation deadline:	end of 2021; continuously
Performance indicators:	1. Adopted plan of organization of experimental stations, assessed need for experimental plots, facilities, equipment and staff employed at the experiment stations 2. Defined potential of new experiment stations based on the Faculty's needs and opportunities 3. Completed discussion about the suggested locations of experimental stations among the Faculty departments 4. Discussion completed and decision reached about the locations for experiment stations at the Faculty Council 5. Completed of legal actions for registration of new experiment stations and their integration into Faculty structure 6. Defined and contracted partners and sponsors for equipping of experiment stations 7. Incorporation of new experiment stations into the University Development Strategy 8. Appointed manager of the experiment stations 9. Developed and adopted Regulations on the development and organization of experiment stations

Strategic aim 4. Raising the level of Faculty administrative staff competences

Measure 4.1.	Establishment of the lifelong learning system for non-teaching (administrative) Faculty staff
Executive authorities:	Dean, Vice-Deans, Heads of Faculty departments, Head of the Central administration office
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none">1. Defined training program for staff working in the Central administration office and in the Library2. Defined ways to monitor the implementation of newly acquired knowledge by the staff and assessed improvement effects in the raising of their work quality3. Increased number of administrative staff who attended lifelong learning programs at national and international level



4.2. Teaching activity and students

Overall aim: Ensuring high quality of student education through interconnection of teaching and research and through recognition of contemporary study programs in the field of biotechnical sciences and agriculture, as well as in the multidisciplinary fields, which shall further lead to the improvement of students and staff mobility and to the development of high-quality lifelong learning programs based on the real needs of the economy sector. This will also facilitate the Faculty's ability to attract the best secondary-school-leaving students to continue their higher education at one of the study programs offered by the Faculty.

Strategic aim 1. Raising the level of attractiveness and quality of the Faculty studies

Measure 1.1.	Reorganization of existing undergraduate study programs and establishment of the new undergraduate study program in Forestry and Nature Protection
Executive authorities:	Dean, Vice-Dean for education and quality management, Committee for teaching, Committee for quality assurance, Faculty Council, Heads of Faculty departments, Quality assurance office
Implementation deadline:	end of 2020
Performance indicators:	<ol style="list-style-type: none"> 1. Completed analysis of the existing study programs (attractiveness, number of enrolled students, exam passing rates, passing rates per each study module, surveys among employers, new world trends) 2. Proposed plan for the reorganization of existing study programs and/or creation of new study programs 3. Conducted discussion and approval at the Faculty Council 4. Implemented procedure for introduction of modern reorganized and/or new study programs 5. Created and adopted program of the new study in Forestry and Nature Protection
Measure 1.2.	Reorganization of existing graduate study programs and establishment of the new graduate study program in Forestry and Nature Protection
Executive authorities:	Dean, Vice-Dean for education and quality management, Committee for teaching, Committee for quality assurance, Quality assurance office, Faculty Council, Heads of Faculty departments
Implementation deadline:	end of 2020

Performance indicators:	<ol style="list-style-type: none"> 1. Completed analysis of the existing study programs (attractiveness, number of enrolled students, exam passing rates, passing rates per each study module, surveys among employers, new world trends) 2. Proposed plan for the reorganization of existing study programs and/or creation of new study programs 3. Conducted discussion and approval at the Faculty Council 4. Implemented procedure for introduction of modern reorganized and/or new study programs 5. Created and adopted program of the new study in Forestry and Nature Protection
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Measure 1.3.	Reorganization of professional study programs
Executive authorities:	Dean, Vice-Dean for education and quality management, Committee for teaching, Committee for quality assurance, Faculty Council, Heads of Faculty departments, Quality assurance office
Implementation deadline:	end of 2020
Performance indicators:	<ol style="list-style-type: none"> 1. Completed analysis of the existing study programs (attractiveness, number of enrolled students, exam passing rates, passing rates per each study module, surveys among employers, new world trends) 2. Proposed plan for the reorganization of existing study programs and/or creation of new study programs 3. Conducted discussion and approval at the Faculty Council 4. Implemented procedure for introduction of modern reorganized and/or new study programs



Measure 1.4.	Attracting the best secondary-school-leaving students to enroll study programs offered by the Faculty
Executive authorities:	Vice-Deans, Committee for quality assurance, Quality assurance office, Heads of Faculty departments, Scientific Forum
Implementation deadline:	end of 2019; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Analyzed existing enrollment policy of the Faculty 2. Systematic determination of the enrollment quota at the Faculty 3. Completed analysis on the success during studying according to the success achieved at state graduation exam 4. Number of organized activities and number of popularization events (Science Festival, Faculty Open Door Day, professional events, etc.), all related to the Faculty promotion and improvement of prospective students' profile for enrollment to Faculty's study programs 5. Number of cooperation agreements signed with secondary schools 6. Number of promotional events in public media about the enrollment politics of the Faculty
Measure 1.5.	Improvement of studying quality at the Faculty
Executive authorities:	Dean, Vice-Deans, Committee for teaching, Committee for quality assurance Quality assurance office, Faculty Council, Office for student support and career counseling, Heads of Faculty departments
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Analysis of the existing situation about the success rate of studying at the Faculty 2. Updated Regulations on rewarding the best students 3. Defined scope of work of the Office for student support and career counseling 4. Increased involvement of students in professional and scientific projects performed at the Faculty 5. Number of students involved in Faculty bodies 6. Prepared analysis about the representation of students from vulnerable groups 7. Developed system for involving such students in the teaching process 8. Number of supported professional, cultural, social and sports activities organized by the students 9. Implemented support system for efficient employability of Faculty graduates

Measure 1.6.	Organization of lifelong learning programs
Executive authorities:	Vice-Dean for education and quality management, Committee for teaching, Head of the lifelong learning center, Faculty Council, Heads of Faculty departments
Implementation deadline:	end of 2019; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Intensified work of the Center for Lifelong Learning 2. Completed analysis about the opportunities and market needs for the lifelong learning programs 3. Proposed programs adopted by the Faculty Council 4. Defined Regulations on the implementation of lifelong learning programs 5. Appointed lifelong learning program coordinators 6. Prepared promotional material about each lifelong learning program

Strategic aim 2. Systematic assurance and monitoring of the teaching process quality and introduction of e-courses

Measure 2.1.	Organization of the quality assurance system and monitoring of the teaching process. Strengthening the Faculty's quality assurance system as in line with the standard guidelines of the European Higher Education Area (ESC standards) and provision of mechanisms for the implementation of individual activities. Improving teachers' competences and teaching skills and provision of appropriate tools and new technologies in teaching and learning
Executive authorities:	Vice-Deans, Committee for teaching, Committee for quality assurance, Quality assurance office, Faculty Council
Implementation deadline:	end of 2019; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Completed analysis of the existing quality assurance system 2. Prepared necessary documents for the quality assurance system and adopted by the Faculty Council 3. Continuous monitoring of the teaching process quality 4. Defined criteria for improvements of the teaching process quality 5. Prepared annual reports of the Committee for quality assurance

Measure 2.2.	Introduction of e- courses that will be delivered within the model of e-learning by using available distance-learning tools
Executive authorities:	Vice-Deans, Committee for teaching, Committee for e-learning, Faculty Council, Heads of Faculty departments
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Completed analysis of the current situation regarding the e-courses implemented in accordance with the e-learning model 2. Established Committee for e-learning 3. Organized workshops for teachers about giving lectures by using new technologies in the teaching process 4. Developed and approved new e-learning courses (modules) 5. Prepared reports of the Committee for e-learning for each academic year

Strategic aim 3. Development of academic environment that welcomes international students

Measure 3.1.	Development of English-taught graduate studies
Executive authorities:	Vice-Dean for education and quality management, Vice-Dean for international cooperation, Committee for teaching, Faculty Council, Office for international relations and projects, Heads of Faculty departments
Implementation deadline:	end of 2020
Performance indicators:	<ol style="list-style-type: none"> 1. Completed analysis on the opportunities for delivering the graduate studies in English 2. Curriculum for the study program in ICT in Agricultural Sciences prepared and adopted by the Faculty Council 3. Implemented procedure for realization of the study program 4. Announced calls for admission to the study

Strategic aim 4. Intensification and continuity of student mobility

Measure 4.1.	Raising students' awareness on the exchange programs and interest for participation
Executive authorities:	Vice-Deans, Committee for teaching, Office for international relations and projects, Office for science, Office for students and study programs
Implementation deadline:	end of 2019; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Number of presentations and workshops about exchange opportunities for students 2. Number of students attending such workshops 3. Prepared promotional material 4. Popularization of exchange programs by involving ex-outgoing students to share their experiences with prospective outgoing students
Measure 4.2.	Increasing the number of students participating in the ERASMUS+ and CEEPUS individual mobility scheme
Executive authorities:	Vice-Deans, Committee for teaching, Office for international relations and projects
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. In each academic year, number of outgoing Erasmus+ students is higher than 20, and number of outgoing CEEPUS students is higher than 5 2. In each academic year, number of incoming Erasmus+ students is higher than 10, and number of incoming CEEPUS students is higher than 5

4.3. Scientific research activity

Overall aim: Continuous strengthening of the scientific research quality and improving Faculty's visibility in all its fields of action. Developing a multidisciplinary research environment by efficient usage of research capacities. FABSOS shall pay greater attention to the realization of scientific projects and shall make use of all comparative advantages in order to improve cooperation with other research teams in Croatia and abroad. The above stated shall be in line with specific strategic aims set out for smart, inclusive and sustainable growth, as defined by the Croatian Smart Specialization Strategy and the European Framework Programme for Research and Innovation. Attention will be paid also to the raising of doctoral study program quality, as well as to the quality of young researchers.

Strategic aim 1. Achieving recognition in the areas of research

Measure 1.1.	Definition of criteria for the work and evaluation of research teams that will be formed according to areas of activity
Executive authorities:	Dean, Vice-Deans, Board for science, Faculty Council
Implementation deadline:	end of 2019
Performance indicators:	<ol style="list-style-type: none"> 1. Number of established research teams 2. Prepared Regulations on criteria for the work and evaluation of research teams

Strategic aim 2. Continuous improvement of scientific research quality and development of a multidisciplinary research environment through efficient use of research capacities

Measure 2.1.	Number of published scientific papers indexed in the WoS database shall be increased by 20%
Executive authorities:	Vice-Dean for science and postgraduate studies, Board for science, Office for science, Faculty departments
Implementation deadline:	October 2023
Performance indicators:	<ol style="list-style-type: none"> 1. Monitoring of the number of published scientific papers indexed in the WoS database 2. Continuous updating of the Faculty database with newly published scientific papers

Measure 2.2.	Number of published scientific papers indexed in the WoS database in Q1 and Q2 quartiles shall be increased by 20%
Executive authorities:	Vice-Dean for science and postgraduate studies, Board for science, Office for science, Faculty departments
Implementation deadline:	October 2023
Performance indicators:	<ol style="list-style-type: none"> 1. Monitoring the number of published scientific papers indexed in the WoS database in Q1 and Q2 quartiles 2. Strengthened existing support system for published scientific papers in prestigious journals (Q1 and Q2 quartiles)
Measure 2.3.	Increase in the number of citations per scientist
Executive authorities:	employees, Vice-Dean for science and postgraduate studies, Board for science, Office for science, Faculty departments
Implementation deadline:	October 2023
Performance indicators:	<ol style="list-style-type: none"> 1. Number of citations per scientist is increased by 5%
Measure 2.4.	Applications of projects to national and international calls for competitive scientific research projects are increased and the number of granted scientific projects is increased by 20%
Executive authorities:	Vice-Deans, Board for science, Office for science, Office for international relations and projects, Faculty departments
Implementation deadline:	October 2023
Performance indicators:	<ol style="list-style-type: none"> 1. Number of the in-house workshops organized on project proposals development, monitoring of the announced calls, project application procedure and project management 2. Established system for monitoring of calls and informing employees about upcoming calls for project proposals 3. Increased number of research project applications to national calls 4. Increased number of research project applications to international calls 5. Increased number of granted national scientific research projects 6. Increased number of granted international scientific research projects 7. Provided funding for pre-financing and co-financing of competitive research projects

Measure 2.5.	Encourage participation in the establishment of scientific centers of excellence related to the Faculty's scientific research area
Executive authorities:	Dean, Vice-Deans, Board for science, Office for science, Faculty departments, employees
Implementation deadline:	end of 2021; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Number of applications of projects for the calls for creation of scientific centers of excellence 2. Number of approved projects for the establishment of the scientific centers of excellence and number of project team members affiliated with newly approved scientific centers of excellence (coordinators of research groups)
Measure 2.6.	Encourage grouping of the Faculty's research teams with other researchers and research teams of other University constituent units
Executive authorities:	Vice-Dean for science and postgraduate studies, Board for science, Office for science, Faculty departments, employees
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Number of applied and approved projects developed in co-operation with researchers of other University constituent units 2. Number of published research papers in co-authorship with researchers of other University constituent units 3. Number of jointly supervised doctoral dissertations
Measure 2.7.	Encourage researchers' excellence and productivity (papers, books, awards, patents) through a clearly defined reward system
Executive authorities:	Vice-Deans, Board for science, Office for science, Faculty departments, employees
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Revised Regulations on rewarding excellence 2. Increased number of published author's university textbooks and books (by 5%) 3. Increased number of nominations of excellent researchers to the calls for the awards given by leading Croatian and international scientific-research institutions (by 5%) 4. Increased number of patent applications to leading Croatian and international bodies (by 2%) 5. Intensified work of central laboratories and their associated sub-units 6. Establishment of the award for the best university textbook printed in each academic year

Measure 2.8.	Increase the number of visiting researchers at the Faculty and encourage Faculty's own staff to visit other universities
Executive authorities:	Vice-Deans, Board for science, Office for science, Office for international relations and projects, Faculty departments, Committee for teaching
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Number of visiting researchers in each year 2. Number of Faculty's staff visiting other universities for the purpose of research or specific trainings

Measure 2.9.	Facilitated employment of teaching and research assistants
Executive authorities:	Dean, Vice-Deans, Office for science, Faculty Council
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Number of employed teaching and project assistants 2. Number of assistant professors compared to the total number of scientific-teaching staff 3. Implemented system of supports provided to young scientists for their research work

Measure 2.10.	Increase in the number of technical and laboratory staff for 10% until 2022
Executive authorities:	Dean, Vice-Deans, heads of central laboratories
Implementation deadline:	end of 2022
Performance indicators:	<ol style="list-style-type: none"> 1. Monitoring the number of employed technical and laboratory staff in the period 2018 - 2022

Strategic aim 3. Raising the quality of the doctoral study program and the quality of young researchers

Measure 3.1.	Increasing the number and quality of doctoral students' mentors, by taking into account the involvement of study advisors in the monitoring of doctoral students' activities, as well as by engaging new mentors at the doctoral study. Improving the relationship between mentors and doctoral students by clearly defining the rights and obligations of mentors and trainees
Executive authorities:	Vice-Dean for science and postgraduate studies, Committee for the doctoral degree award, coordinators of doctoral study modules, Office for science
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Number of new study advisors engaged at the doctoral study 2. Number of new mentors engaged at the doctoral study per each study year 3. Total number of study advisors and mentors at the doctoral level

Measure 3.2.	Increasing the number of defended doctoral dissertations by 20%
Executive authorities:	Vice-Dean for science and postgraduate studies, Committee for the doctoral degree award, coordinators of doctoral study modules, Office for science
Implementation deadline:	October 2023
Performance indicators:	1. Number of defended doctoral dissertations is increased in the period 2018-2023 compared to the period 2012-2017
Measure 3.3.	Number of doctoral students shall be increased by 10%, especially the number of doctoral students from other institutions or from the industry sector
Executive authorities:	Vice-Dean for science and postgraduate studies, Committee for the doctoral degree award, coordinators of doctoral study modules, Office for science
Implementation deadline:	end of 2022; continuously
Performance indicators:	1. Number of all doctoral students enrolled at the doctoral study 2. Number of doctoral students from other institutions and industry
Measure 3.4.	Development of a system that will stimulate the best graduates to enroll the doctoral study program, by enabling them to choose quality research topics and mentors
Executive authorities:	Vice-Deans, Committee for teaching, Committee for the doctoral degree award, coordinators of doctoral study modules, Office for science
Implementation deadline:	end of 2020
Performance indicators:	1. Document on stimulating the enrollment of graduates in the doctoral study program
Measure 3.5.	Enabling the research visits of doctoral students at other institutions and centers of excellence in the country or abroad for the purpose of performing a part of their research and gaining the highest level of knowledge and expertise in their fields of research interest
Executive authorities:	Vice-Deans, Committee for the doctoral degree award, coordinators of doctoral study modules, Office for science, Office for international relations and projects
Implementation deadline:	end of 2020; continuously
Performance indicators:	1. Number of doctoral research visits organized outside the Faculty 2. Number of doctoral research visits organized at institutions abroad

4.4. International relations

Overall aim: FABSOS will intensify its scientific and teaching activities at the international level, by developing a system of supports to project applications and participations in international projects based on specific strategic objectives aligned with the European Research and Innovation Framework Programme. Special attention will be given to greater international visibility, connectivity and networking of the Faculty.

Strategic aim 1. Development of a system of continuous support for applications and participation in international projects

Measure 1.1.	Expanding and strengthening the Office for international cooperation and projects for the purpose of monitoring the announcements of the international calls for project proposals and cooperation. Office staff will be trained in international project administration and management, thus being enabled to provide administrative support to researchers in their research project ideas and further project management
Executive authorities:	Vice-Dean for international cooperation, Office for international relations and projects, Office for science
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Prepared Regulations on the activities carried out by the Faculty's Office for international cooperation and projects 2. Employment of one administrative staff to work in the office 3. Organized workshops on preparation of project proposals and their application to the international competitive calls

Strategic aim 2. Intensification of scientific activity at the international level

Measure 2.1.	Establishment of the Faculty fund for cooperation with international institutions, the purpose of which is to support short visits of the Faculty employees to international partners within which they shall develop cooperation plans and prepare project proposals
Executive authorities:	Vice-Dean for international cooperation, Office for international relations and projects, Office for science, Board for science
Implementation deadline:	end of 2020
Performance indicators:	<ol style="list-style-type: none"> 1. Established fund and provided material resources for the realization of planned activities

Measure 2.2.	Development of a system for rewarding the employees that are actively involved in scientific research projects
Executive authorities:	Vice-Deans, Office for international relations and projects, Office for science, Board for science, Academic faculty and staff awards committee
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Revised Regulations on the rewarding of excellent employees 2. Number of employees involved in international research projects
Measure 2.3.	Number of bilateral and cross-border cooperation projects shall be increased by 10% until 2022
Executive authorities:	Vice-Deans, Office for international relations and projects, Office for science, Board for science, employees
Implementation deadline:	end of 2022
Performance indicators:	<ol style="list-style-type: none"> 1. Number of bilateral projects 2. Number of cross-border cooperation projects
Measure 2.4.	Intensification of cooperation on development of project proposals that are applied to calls within the Horizon 2020 and FP9
Executive authorities:	Vice-Deans, Office for international relations and projects, Office for science, Board for science, employees
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Number of organized workshops and lectures on Horizon 2020 and FP9 project application at the Faculty 2. Number of Horizon 2020 and FP9 projects submitted / granted
Measure 2.5.	Increased number of incoming doctoral students from abroad, for which it is necessary to perform doctoral study modules in English language. Increased number of postdoc students and young researchers from abroad visiting the Faculty through international exchange programs
Executive authorities:	Vice-Deans, Office for international relations and projects, Office for science, Board for science, Committee for the doctoral degree award, coordinators of the doctoral study modules
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. number of postgraduate (doctoral) study modules taught in English language 2. number of incoming international doctoral students, postdoc students and young researchers

Strategic aim 3. Reaching the highest possible level of Faculty's international visibility, connectivity and networking

Measure 3.1.	Widening the scope of Faculty's international cooperation within existing and newly established cooperation agreements
Executive authorities:	Vice-Dean for international cooperation, Office for international relations and projects, Office for science, employees
Implementation deadline:	end of 2019
Performance indicators:	<ol style="list-style-type: none"> 1. Completed analysis of activities realized within existing cooperation agreements 2. Defined potential partners for establishment of new cooperation agreements 3. Increased realization of activities envisaged in the cooperation agreements by facilitating mutual exchanges of professors and students
Measure 3.2.	Increased engagement and role of the Faculty in the activities of international organizations and networks focused on agronomy and higher education
Executive authorities:	Vice-Dean for international cooperation, Office for international relations and projects, Office for science, employees
Implementation deadline:	end of 2019; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Participation in sessions, workshops and conferences organized by BENA, ICA, EHEDG, IOBC or similar organizations 2. Memberships in different boards of the international associations and scientific networks

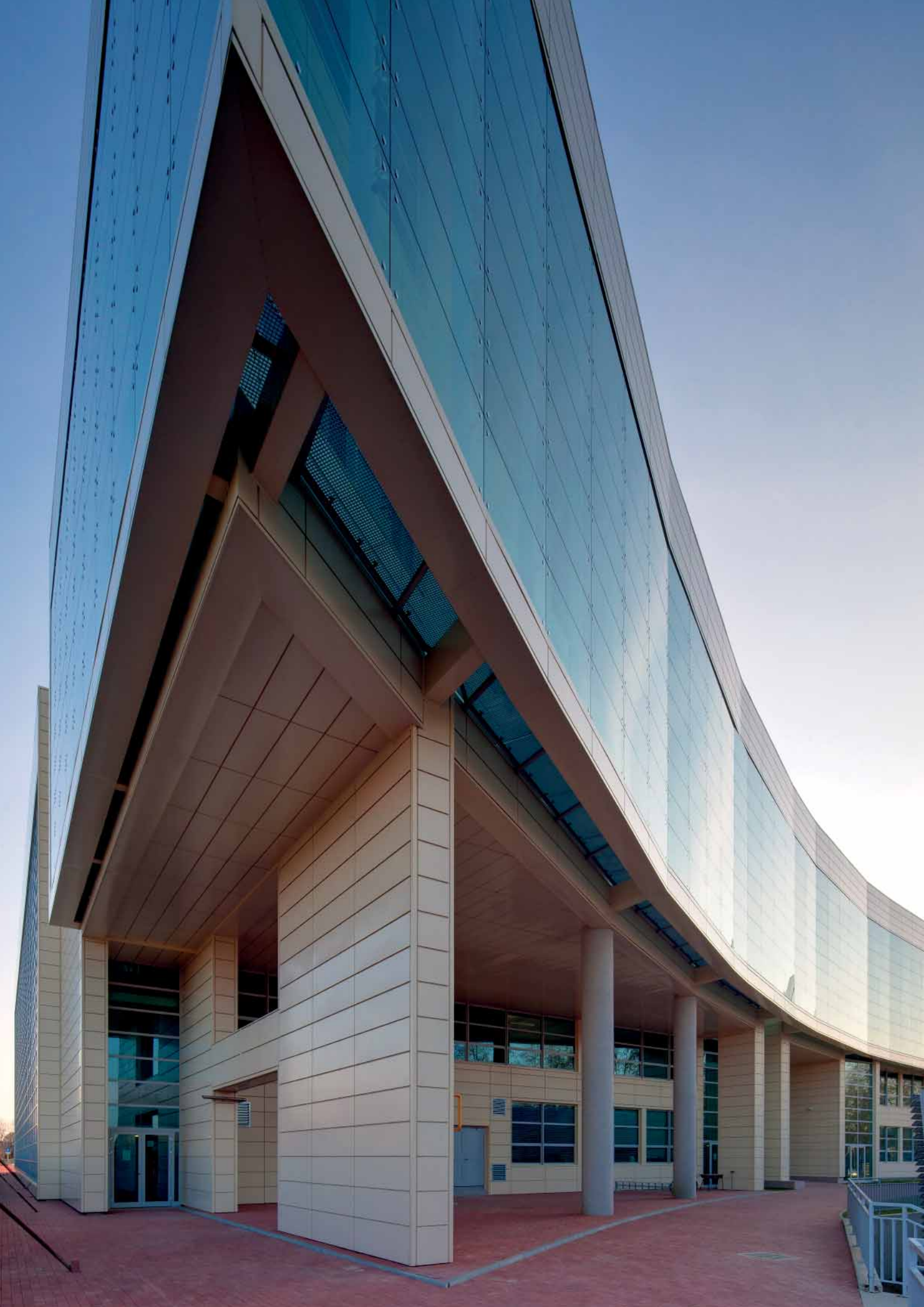
4.5. Cooperation with economy sector and transfer of knowledge and technology

Overall aim: Raising the level of knowledge and technology that result from Faculty's numerous scientific research and professional activities and their transfer to the Croatian and regional economy sector. Knowledge and technology transfer will be an incentive for ensuring the sustainability of obtained research results, as well as for creation of new economic entities and investments into research and innovation. This shall directly contribute to further development of new technologies and products and to creation of new job positions.

Strategic aim 1. Raising the level of knowledge and technology transfer

Measure 1.1.	More active engagement of the members of the Committee for cooperation with the economy sector and innovations
Executive authorities:	Vice-Dean for experiment stations development and technology transfer, Committee for cooperation with the economy sector and innovations
Implementation deadline:	end of 2019; continuously
Performance indicators:	1. Defined Action Plan of the Committee for cooperation with the economy sector and innovations
Measure 1.2.	Improve and facilitate contacts of business representatives with the Faculty through cooperation with the Committee for cooperation with the economy sector and innovations, which serves as a link between business sector and researchers
Executive authorities:	Dean, Vice-Dean for experiment stations development and technology transfer, Committee for cooperation with the economy sector and innovations, employees
Implementation deadline:	end of 2019; continuously
Performance indicators:	1. Printed promotional materials about the Faculty targeting the business entities 2. Number of contacts and projects that resulted from the work of the Committee for cooperation with the economy sector and innovations

Measure 1.3.	Intensification of knowledge and technology transfer (intensification of activities within the existing cooperation agreements with business entities through new projects, new cooperation frameworks, and through organizing parts of research or practical work of doctoral students at the partner companies. Strengthening of cooperation with Tera Tehnopolis Ltd. for the purpose of promoting new technologies, innovation and entrepreneurship)
Executive authorities:	Vice-Deans, Committee for the doctoral degree award, coordinators of doctoral study modules, Committee for postgraduate specialist studies, Committee for cooperation with the economy sector and innovations, Board for final bachelor papers, Board for master theses, Office for science
Implementation deadline:	end of 2020; continuously
Performance indicators:	<ol style="list-style-type: none"> 1. Number of cooperation agreements and projects with business entities 2. Amount of material resources obtained within projects with economy sector 3. Number of established relationships with business entities through the preparation of final papers and master theses 4. Number of research projects carried out in companies for the purpose of preparation of doctoral dissertations 5. Number of applied and approved patents and innovations and commercialized products or services 6. Number of joint applications / approved projects with Tera Tehnopolis Ltd. to promote new technologies, innovations and entrepreneurship 7. Adopted Regulations on commercialization of knowledge and technologies



5. RISKS, PRIORITIES AND METHODS OF THE STRATEGY IMPLEMENTATION

The realization of the strategy objectives is an important step in the development of the Faculty of Agrobiotechnical Sciences Osijek. The strategy is based on the realistic resources that are at Faculty's disposal, however, it also follows development trends in biotechnical sciences and higher education, thus opening the space for advancement in the defined strategic period.

Still, the success of strategic objectives fulfillment is facing some risks, too. These risks are primarily associated with retaining the existing and developing new human resources that will be motivated for completion of organizational changes envisaged by this Strategy. The basis of achieving the above set goals will rest on the Faculty employees, so the Faculty will be challenged to attract and retain the best graduates and young scientists for its own human resource development.

Therefore, additional efforts and material resources will have to be invested in future development. There will be permanent actions undertaken to maintain the relations with the University and the departmental Ministry for the purpose to assure stimulative mechanisms for human resource development. We are facing social changes as well as changes in the human resources structure, and all these new circumstances require appropriate step-up and organizational adjustment. This Strategy envisages the human resources development and the increase of project activities, by defining measures and guidelines for guaranteed future development that should partially eliminate these risks. At the same time, the Faculty of Agrobiotechnical Sciences Osijek needs to obtain resources that will be required for overall social development over the next ten years.

The following risks are related to difficulties in the system of higher education funding. The Faculty of Agrobiotechnical Sciences Osijek receives the most of the earmarked funds for teaching through program contracts, and other part of is obtained through project activities. Both sources of funding will be used to implement the strategy objectives, by taking into account the rational use of funds. Reaching of strategic aims will not be possible if there is a reduction in financial resources allocated through the program contracts. This is because funding allocated through project activities cannot be the sole source of financing required for future development, especially if respecting the fact that such project revenues are limited to support only specific activities.

The last risks are related to the decrease in the number of students enrolled at the Faculty, as the enrollment quotas are not completely fulfilled. This may be occurring due to current demographic trends and offers of similar competitive study programs. The decrease in the number of students enrolled directly influences the Faculty finances, by questioning at the same time the strategy objective to increase the number of study programs. Therefore, it is important to invest efforts in strengthening of Faculty's competitiveness at the higher education market, and to support promotional activities and internationalization. Realization of strategic aims is a significant step forward in that direction. All mentioned risks

are taken into account when preparing this Strategy document. By implementing all activities according to the set measures, the risks can be reduced and eliminated, at least in the scope of action that is under Faculty's control.

The fundamental priorities defined in the Strategy and overall approach to its implementation are relying on Faculty's scientific and teaching positioning in the strategic areas. Approach to implementation is described through the set activities, the realization of which will take place in a time dynamics with two leading perspectives - the learning perspective and the process perspective, both of which are crucial for the mission and vision realization. In the scientific component, positioning in the strategic areas will begin with establishment of mechanisms for monitoring of scientific productivity and of appropriate incentives for scientific excellence. Project activities will be significantly focused on strategic areas and competitive project funding schemes. Incoming and outgoing mobility will be supported in order to increase Faculty's networking and expand the existing networks with new project partners. This will require additional investment in human resources and in the development of organizational procedures for support and monitoring of project activities.

In terms of teaching, the emphasis will be put on revision of the overall curriculum and of all preceding preparatory activities. Undergraduate university and professional studies will be reorganized with the intention of incorporating all strategic guidelines to establish a target core of knowledge that shall be common to all study programs. Graduate university study will be additionally profiled through the strategic areas introduced into the new graduate university study program, so that many courses at the graduate level studies will be fused.

Simultaneously, the Faculty overall maturity level will be increased in terms of strategic management capacity and continuous monitoring of key performance indicators for strategy implementation. This will require a set-up of an appropriate information system and mechanisms for efficient monitoring of undertaken organizational changes, data collection and interpretation of strategy implementation indicators.

The challenges that will affect the realization of the strategic aims are primarily related to the conditional restrictions in the employment of new staff and high level of competition within the offered study programs and new scientific areas in biotechnology and geoinformation systems. Financing of scientific activity is becoming increasingly competitive, as it is available mainly through European sources of funding, which is characterized by exceptionally high competition level. The Faculty has to make significant efforts to continue with developing both agricultural and forestry studies and to build human resource capacities for efficient realization of teaching. All of the stated must be achieved in the conditions of stagnant employment politics and limited availability of governmental resources, still bearing in mind the fact that agricultural food industry as a strategic branch is constantly demanding highly educated labor force. Agricultural sciences will remain the leading driving force of future economic and social changes. Since the Faculty of Agrobiotechnical Sciences Osijek acts in such a propulsive environment, it has to follow the trends and face the challenges in order to retain its competitiveness in the years to come. By facing the future strategic period, the Faculty of Agrobiotechnical Sciences Osijek recognizes this idea as a core substance of its development strategy and correlates it with its fundamental strengths.





Josip Juraj Strossmayer University of Osijek

**Faculty of Agrobiotechnical
Sciences Osijek**

www.fazos.unios.hr