

Scientific Strategy of University of Split
2009 – 2014

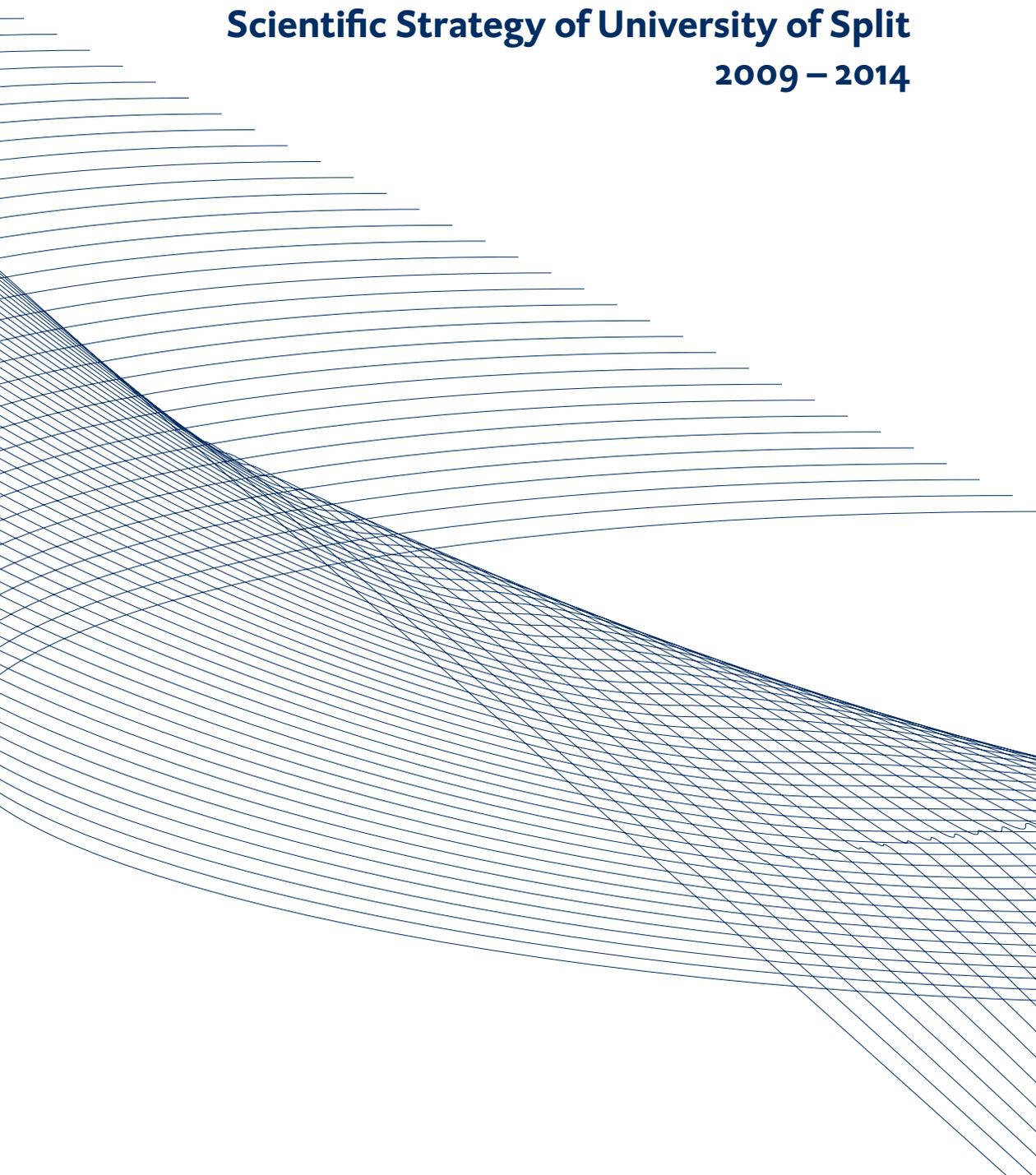




SVEUČILIŠTE U SPLITU

Split, June 2009.

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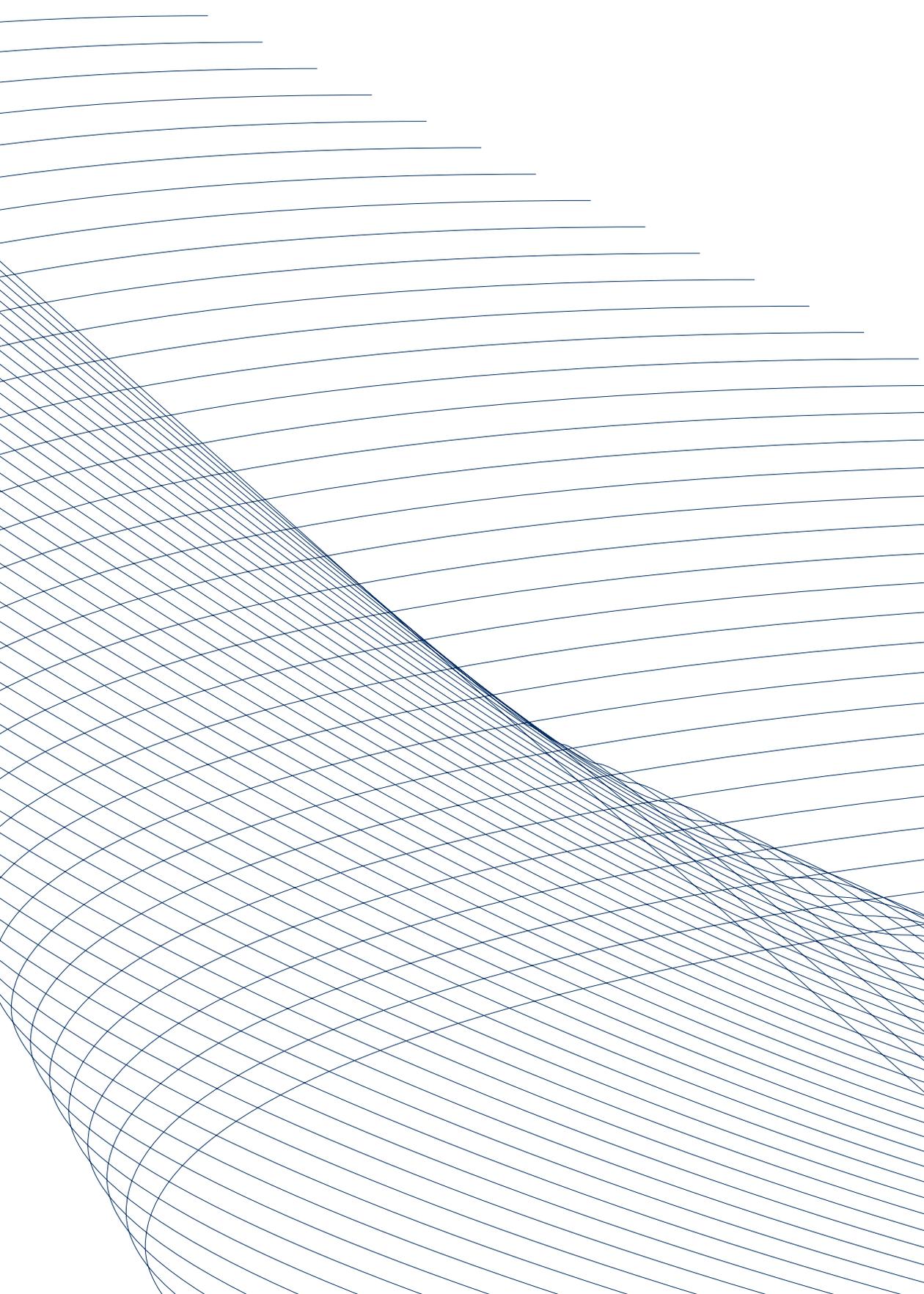


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At the proposal of the Committee of Science, International and Inter–University Collaboration, the Scientific Strategy of University of Split was approved by the Senate of University of Split at its 31st session of 27 February 2009 under the 4th item of the agenda.

The proposal was jointly devised and elaborated by the members of the Committee: Prof. Željko Dujčić, Ph.D., Prof. Roko Andričević, Ph.D., Prof. Mile Dželalija, Ph.D., Prof. Ivica Grković, Ph.D., Prof. Dragan Poljak, Ph.D., Prof. Ivana Prijatelj-Pavičić, Ph.D., Prof. Željko Mrnjavac, Ph.D., Prof. Željko Marović, Ph.D., as well as the members of the expert team consisting of vice-deans: Prof. Snježana Knezić, Ph.D., Igor Jerković, Ph.D., Prof. Ivica Puljak, Ph.D., Prof. Srđan Podrug, Ph.D., Prof. Željka Fuchs, Ph.D., Prof. Branko Matulić, Ph.D., Prof. Maja Fredotović, Ph.D., and Prof. Nediljko Ante Ančić, Ph.D., together with other associates: Livia Puljak, M.D.



Introduction

Science is a complex interdisciplinary and multidisciplinary activity with a basic task – to generate knowledge.

One of the basic tasks of a university is to develop, promote, and support scientific activities at all levels. The only way of achieving this goal is through ensuring the development of scientific culture, as well as supporting the development of a scientific milieu where scientific activity will be adequately valued and encouraged

At the time immediately preceding the Republic of Croatia's full membership of the European Union a set of documents may serve as a term of reference and a guideline in designing and elaborating various types of scientific strategies at Croatian universities, the most important ones being:

- Lisbon Strategy of 2000 (revised in 2005)
- Development of Scientific Strategies and Management at European Universities (EUA 2006)
- Scientific and Technological Policies of Republic of Croatia (2006–2013)
- Action Plan 2007–2010 – Scientific and Technological Policies of Republic of Croatia
- Action Plan for Promoting Investment in Science and Research (2007)
- Recommendations based on discussion on innovativeness, research university, and company based on knowledge.

The above documents contain the basic guidelines for devising a plan of the development of science and technology in the Republic of Croatia.

Like other Croatian universities, the University of Split has only recently started the elaboration, revision, and completion of scientific strategies. The basic reasons underlying the scientific strategies are an ever increasing international competition in scientific achievements and modes of financing scientific projects, both on the national and European levels. If a university is to be recognised on the international scientific scene, it should be fully aware of the weaknesses of the existing situation concerning scientific activity and concentrate all available human, financial, and spatial resources, aiming them at reinforcing those thematic centres of excellence that are capable of maintaining the university in the ever increasing fierce international scientific competition.

The majority of Croatian universities are primarily focused on teaching, comprising individualised scientific activity which may be said to be more random than designed or deliberately directed. The separation of scientific institutes from the university system is believed to have contributed to the existing state of science in the Republic of Croatia. Since almost all Croatian universities seem to be emphasising the inseparability of teaching from scientific

or artistic activity, it becomes necessary for newly developed scientific strategies to finally establish a plan for the development of science, a transparent scientific evaluation, as well as to support the systematic bond between science and university teaching in a university milieu.

Evaluation and assessment of scientific activity and the potentials of individual scientists, scientists' teams, laboratories, institutes, faculties, and universities is currently being intensively carried out among European universities. Procedures and methodologies employed at evaluating scientific achievements and results constitute a flexible and iterative process which has to be aimed at encouraging and promoting scientific activity, from doctoral candidates to professors, on both national and international levels.

The scientific Strategy of University of Split represents a major document from which all individual scientific strategies of university components (particular faculties) are derived, subsequently elaborating particular scientific areas with all their specific features. The Scientific Strategy of University of Split is to be successively revised and reevaluated with regard to all the changes and new developments, in both the Croatian and international scientific environments. The implementation and monitoring of the University Scientific Strategy will be the domain of the vice-chancellor responsible for science and international collaboration, together with the respective committees.

Reasons for designing the scientific strategy

Development of science at the University is primarily aimed at promoting knowledge required for the industrial, economic, social, and cultural development, thereby contributing towards a dramatic improvement of the quality of life. The overall scientific activity tends to support this goal. The university should contribute towards the economic, social, and socially feasible development through science, technological progress, and innovations. Universities are also responsible for contributing towards the public benefit through progress in humanities and arts. Every aspect of social progress is commensurate with the development of science at the university, carried out through the following forms of scientific research:

- Basic or fundamental research promotes knowledge.

- Thematic and applied research demonstrate how scientific ideas are employed and applied in practice.
- Integrated research binds together and promotes interdisciplinary science, demonstrating its applicability in all the segments of society.

International programmes of financing scientific activity clearly demonstrate favouring of major integrated projects involving a number of institutions (networks of universities and their components), while the basic innovative science is for the most part left to national programmes. Universities today should seek an optimal balance between thematic / applied and basic research, bearing in mind that basic scientific research represents the foundations upon which thematic and applied research programmes are to be based.

Since Croatian universities, particularly in comparison to European ones, do not have a significant tradition when it comes to scientific development, it is necessary to start with creating a critical mass of competitive scientists within particular scientific areas and fields, whereupon better financing, both within national and international programmes, could be expected. Once created, this critical mass may grow into excellence centres, becoming internationally recognised by their scientific results and achievements, and thereby competitive within major integral and regional scientific projects of the European Union. A long-term significance of implementing the university scientific strategy should, among other things, attract and encourage financing of science and research, irrespective of current possibilities of the state concerning investment into science.

There are a number of various reasons underlying the elaboration of the University scientific strategy, some of which are listed below and may be considered as applying to the majority of Croatian universities:

- The ever increasing, fierce and unyielding international competition in financing and evaluating science, along with a pronounced need of international community for highly qualified scientists ranging from doctoral candidates to professors, both in national and European development projects carried out in the areas of science, technology, and infra-structure.
- There is an ever present need of creating a critical mass and international competitiveness based on a higher probability of ensuring financing for integral and regional scientific projects through creating networks of universities and their components.
- The imminent need for a scientific strategy becomes obvious in efforts to efficiently use the university resources in the form of capital and minor equipment. Increasing costs of scientific infra-structure requires a more effective employment of scientific equipment and space. In some countries the so-called 'technological platforms' or core facilities are currently being created, whereby equipment can be jointly used, i.e. shared by several potential users at the university.

- The need to create a scientific culture, accessible and better equipped libraries, as well as a favourable environment for encouraging inter-faculty and interdisciplinary collaboration in scientific research in order to decrease and minimise an ever-present fragmentation of science to a number of specialisations.
- The need for a selective employment of young, as well as established and recognised lecturers, capable of meeting the scientific requirements of the institution in question, thereby becoming a leading factor in creating scientific development.
- The need for introducing a transparent scientific evaluation based upon internationally recognised and accepted criteria in order to encourage a positive competition among lecturers and doctoral candidates, both on the university level and within its particular components.
- The need to develop strategic approaches and institutional support in order to create a partnership with the economic private and public sectors, not only as potential future employers of university masters and doctors, but also as potential co-financiers of research projects. This would help to balance the activities on new global economic markets, at the same time creating partners who could lobby for more public investments into science and research.

The scientific strategy is based upon recognising international interdependence and synergy between science and university teaching, and primarily upon the significance of research in the education of post-graduate students. There have been some thoughts and fears concerning a possible conflict between scientific activities and teaching at the university. This might concern the available time dedicated to one or the other. It is for this reason that an appropriate scientific strategy should ensure mechanisms and adequate conditions for scientific activities within office hours for all those employees whose scientific results are considered to contribute towards the advance and progress of science at the university. A true synergy of science and teaching can only be achieved if the scientific component is present in all study programme cycles, enabling the students to acquaint and familiarise themselves with all available careers in science existing at the university. This primarily applies to the teaching process which offers students a wide range of different skills and competences, introduced not only in doctoral studies, but also within study programmes of all levels.

Basic principles of scientific strategy

University scientific strategy should ensure a development of scientific activity at all university levels, primarily creating a scientific environment which would stimulate intellectual curiosity in the individual, as well as contribute towards creating a critical mass of scientific activity in particular areas and encourage lifelong education, as well as initiate and create a bond with industry and economy, thereby promoting and facilitating dissemination of

scientific results, depending on their application to a feasible development of society in general. The scientific strategy of University of Split will focus on the following principles, to be implemented in the following five-year period:

- University scientific activity at the university should promote excellence in research in accordance with international, peer-reviewed criteria of scientific competitiveness.
- University scientific strategy should promote, in both number and quality, the education of undergraduate, graduate, and post-graduate generations of highly qualified students required by the industrial, economic, academic, and public sectors.
- The scientific strategy should encourage and support the establishing of scientific technological parks and/or excellence centres on the local and regional levels, through which spin-off firms and innovation clusters will be created, thereby enabling the transfer of knowledge from the university to private and public sectors, as well as creating new jobs and stimulating economic growth on the local and national levels.
- The scientific strategy should be concerned with promoting the commercialisation of intellectual ownership which possesses a value on the labour market, thereby ensuring permanent partnerships with industry and economy.
- The scientific strategy should stimulate all the components to collaborative scientific partnership with other universities in Croatia, and particularly abroad, with a view to creating a broader critical mass necessary for successful scientific research in compliance with internationally accepted criteria and principles.
- The scientific strategy should ensure the conditions necessary for the financing of science through national and international scientific foundations, the development of infra-structure which ensures equal competition on the international science market.
- The scientific strategy should stimulate all the university components to devise internal scientific development plans with a clearly stated mission aimed at scientific development in all the areas and fields of science.

Stimulating and promoting scientific activity at the University of Split should be primarily focused on employing both young and established lecturers who can, with their knowledge and results, ensure the implementation of the scientific strategy. In order to achieve this, the University should ensure the time and resources necessary for the scientific activity, as well as build mechanisms for stimulating scientific talent and systematically reward scientific excellence at the University.

SWOT analysis

The prerequisite for a proper selection of strategy is a thorough analysis of the situation. This means that the University of Split should view both external and internal factors in order to find the best way of reaching the desired goal. The University of Split has competition both in Croatia and abroad and should therefore seek to identify itself on the world university market in order to attract good students and teachers. An ever increasing dynamics present on the higher education market forces the University to particularly carefully select the way of meeting and handling the competition.

The SWOT analysis is a qualitative analytical method which, by means of four factors, seeks to identify Strengths, Weaknesses, Opportunities, and Threats of a particular phenomenon or situation. In doing this the University should take into consideration both the internal and external environments. In this context the SWOT analysis may be understood as a survey of internal strengths and weaknesses within the organisation, as well as external circumstances and threats the University is faced with. Viewed in the context of time, strengths and weaknesses represent the present based upon the past, whereas opportunities and threats may be taken to represent the future based upon both the past and the present.

The SWOT analysis of the University of Split was carried out at a seminar of the Tempus project, entitled "Capacity Building for Research in Croatia (CBRC)" and dealing with the scientific strategies of Croatian universities, held at the University of Zadar in April 2007, after which the issue was discussed at a number of meetings of vice-deans of Split University, as well as the Science Committee of Split University. The SWOT analysis was concerned with the following topics: scientific, teaching, and administrative activities of Split University; financing of science; undergraduate, graduate, and post-graduate studies, and international mobility of students and staff.

Strengths:

- Highly qualified and high quality staff
- Teachers and scientists educated abroad
- Scientific projects from all areas of study and science
- Internationally successful and recognised research teams
- Potentials for establishing interdisciplinary doctoral studies
- Increasing number of scientific and academic papers at the University 1, 2
- Facilities and equipment
- Construction of a new university campus

Weaknesses:

- Systematic neglect of the importance of scientific activity at the University
- Insufficiency of publicly accessible information concerning the scientific and teaching production of the University
- Shortage of scientific leaders (team leaders) capable of conducting the research independently and successfully
- Overloading of the staff (both teachers and scientists) with teaching and administration
- Insufficiently developed services for international collaboration and public relations
- Increasing teaching load within the Bologna reform of tertiary education represents a direct threat to the development of science. However, in a situation where there is a serious shortage of scientific–teaching positions, the increase of teaching loads and programmes is seen as the only possible way of exerting a pressure upon the Ministry of Science, Education, and Sports to increase the number of staff. Since the University is planning to establish a number of new studies, this may represent a further threat to scientific growth and development.
- Overtime teaching is financially rewarded, while scientific work is not.
- There is no elaborate system of rewarding and stimulating scientists
- Lack of adequate facilities, both space and equipment, at particular University components
- Non–existence of FP projects or other major international projects
- A negligible number of scientific projects in collaboration with industrial enterprises
- The number and quality of published scientific and academic papers 1, 2
- Non–existence of an office for science or an office for the transfer of technology at the chancellor’s offices
- Non–existence of administrative personnel trained for project and scientific activities
- Insufficient amount of interdisciplinary research
- Insufficient connection between various specialisations and scientific areas; introduction of common standards, criteria, and efficiency indicators (quality indicators) is rendered difficult due to fragmentation of resources
- Large number of doctoral studies, small number of students, and shortage of competent mentors capable of efficiently and successfully working with doctoral candidates (particularly junior researchers).
- In working with students more emphasis is laid upon theory than practice
- Inadequate efficiency in using the results of students’ polls and questionnaires concerning teachers’ work at the University level

- Low percentage of students graduating on time
- Insufficient international mobility of both students and staff

Opportunities:

- Return of Croatian scientists from abroad
- Connecting different scientific areas and initiating interdisciplinary projects
- Collaboration between the academic community and economic subjects
- High quality education system and creating conditions for motivating young scientists
- Increasing and reinforcing institutional facilities and applying to more international scientific funds
- Favourable geographic position

Threats:

- Insufficient state investment in science
- Insufficient stimulating of young scientists
- Limited possibilities of scientific personnel's employment
- Market uncompetitiveness: labour fluctuation and brain drain into either industry or abroad
- Excessive centralisation of finances and scientific activity in Zagreb
- Excessive dependence on budget is seen as jeopardising the autonomous development of institutions
- Lack of objectivity in reviews and decision making within the relatively small scientific community
- Non-existence of an institution dealing with artistic research
- Limited possibilities of recruiting junior researchers in the arts

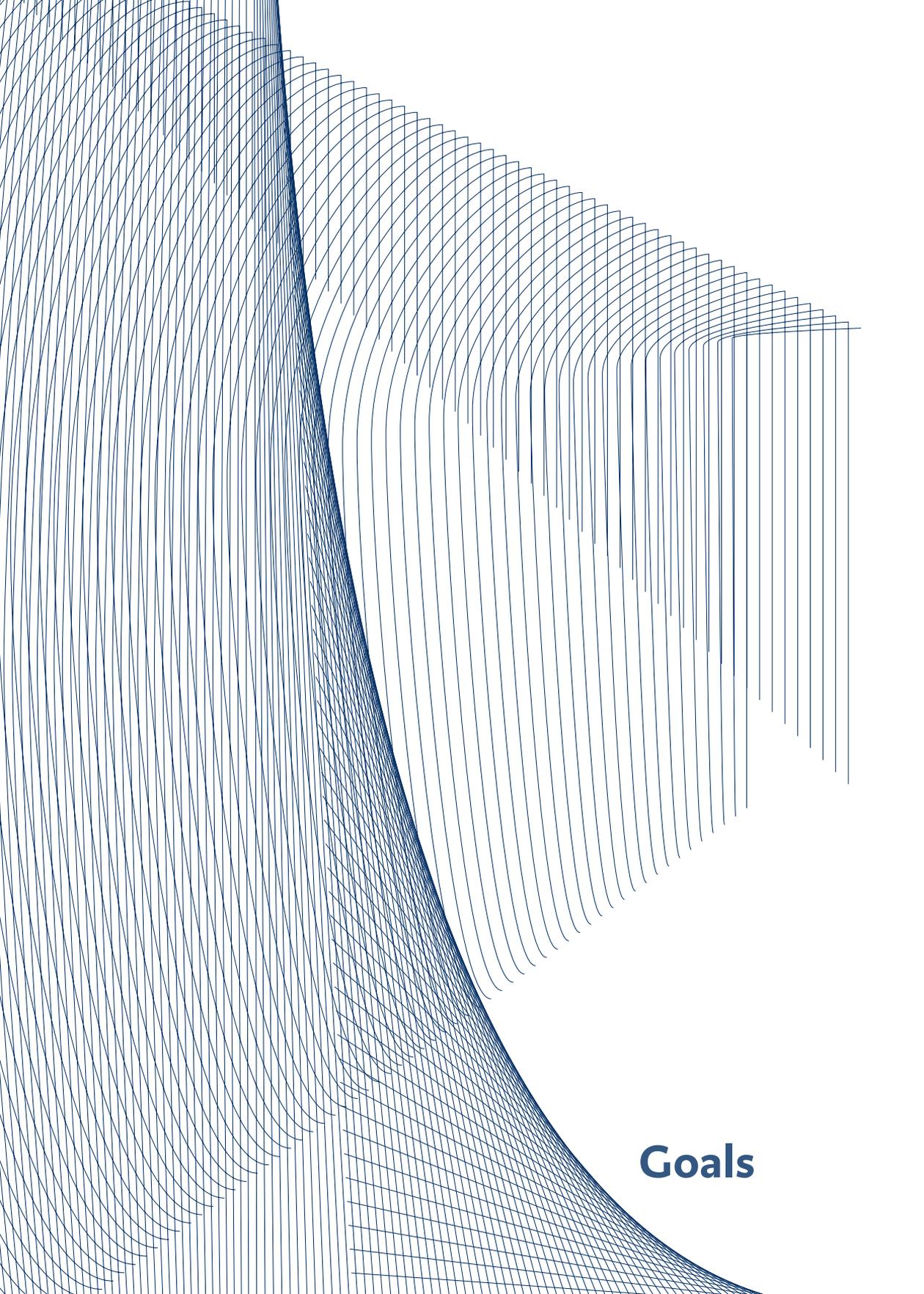
Mission

University of Split ensures and carries out a unique activity of all its components and takes strategic decisions concerning the development and synergy of scientific, teaching, and professional activities. It develops a financial policy and builds mechanisms necessary for the development of all forms of academic infra-structure, primarily programmes of strategic interest for the region and the country. The basic tasks of the University comprise organising and conducting research, higher education, and transfer of knowledge and technologies to the area of economy and society in general.

The University makes strategic decision with respect to stimulating the development of science, university curriculum, professional and expert work, and development plans in relation to external partners engaged in scientific work and higher education. The University ensures and implements mechanisms for the mobility of both students and the teaching staff, rational use of human and material resources with permanent supervision of quality, competitiveness and international presence of scientific, teaching, artistic, and professional work.

Vision

The University of Split is to become a research-oriented university based on scientific excellence in compliance with international indicators, carrying out the teaching process in an exemplary way, based on the principles of full synergy with scientific achievements, encouraging lifelong education. Through active collaboration with economy and industry the University will develop and promote scientific and technological solutions directed towards feasible development, thereby contributing towards raising the quality of life of the local community. The University will stimulate and encourage the mobility of students and the teaching staff with a view to expanding the base of knowledge and enabling the development of varied careers of all its employees.



Goals

Goals

GOAL 1: DEFINE THE UNIVERSITY'S SCIENTIFIC ACTIVITIES AND EXCELLENCE CENTRES

Task 1: Define the research profile of the University and its individual components on the basis of the SWOT analysis results and scientific bibliometric indicators. [Indicator 1]

Task 2: Establish a system of obtaining and processing information on University's scientific activity. [Indicator 2]

Task 3: Define the criteria pertaining to centres of excellence to which leading scientists will be assigned, and whose teaching load will be reduced in order to increase the degree of their scientific responsibility. The University will stimulate promising scientists with a view to opening centres of excellence in the future. [Indicator 3]

GOAL 2: MOTIVATE SCIENTISTS

Task 4: The University will elaborate a system of annual awards allocated to the best doctoral candidate in each particular area of study based on the success of publications derived from the doctoral thesis. [Indicator 4]

Task 5: The University will elaborate a system of awarding the best mentor for each particular area of study based on the number of doctoral theses and the number of publications derived from them for the past five-year period (moving average). [Indicator 5]

Task 6. In employing the future repatriates (Croatian scientists returning from abroad) young scientists who have achieved independent research careers (at least 5-6 years abroad following the doctorate) and who have conducted independent scientific-research projects should be particularly stimulated.

GOAL 3: MOTIVATE STUDENTS' SCIENTIFIC ACTIVITY

Task 7: With a view to raising the quality and level of students' scientific work a students' electronic journal has been envisaged for particular areas of study.

Task 8: The University will elaborate a system of annual awards to the best graduate and undergraduate students based on scientific publications. [Indicators 6 and 7]

GOAL 4: INCREASE SCIENTIFIC ACTIVITIES AT THE UNIVERSITY

Task 9: To ensure a smaller number but a higher quality of doctoral studies instead of the existing large number and lower quality. New inter-institution and interdisciplinary doctoral programmes will be initiated, associated with excellence centres based on the graduate school model.

Task 10: Increase the number of successfully defended doctoral dissertations by 10 % per annum. [Indicators 8 and 9]

Task 11: Increase the number of scientific associates. [Indicator 10]

Task 12: Increase the number of international scientific publications. [Indicators 11-16]

Task 13: Increase the number of scientists who have taken their doctoral degrees abroad. [Indicator 17]

Task 14: Advance and promote publication of academic and scientific journals and periodicals, as well as organisation of scientific conferences and conventions. [Indicator 18]

GOAL 5 : INCREASE THE FINANCING OF SCIENTIFIC PROJECTS

Task 15: Publicise the sources of scientific financing at the University. [Indicators 19-21]

Task 16: Increase the number of projects and the amount of MSES (Ministry of Science, Education, and Sports) project support. [Indicator 22]

Task 17: Increase the number and amount of scientific projects conducted in collaboration with the public sector, economy and industry. [Indicators 23 and 24]

Task 18: Increase the number and amount of projects financed by international programmes. [Indicators 25 and 26]

Task 19: Establish a university fund for top young scientists.

GOAL 6: DEFINE ARTISTIC RESEARCH PROJECTS AND EQUALISE THEM IN STATUS WITH SCIENTIFIC RESEARCH

Task 20: Determine criteria for excellence of artistic expression as practical creativity and generation of knowledge. [Indicator 27]

Task 21: Equalise the status of artistic area and field. The interdisciplinary artistic area should be equalised with the interdisciplinary scientific area as an artistic area of various fields and branches. Effect a change on legislation concerning scientific activity and higher education, as well as accurately define and specify the artistic areas, fields, and branches in the corresponding Statute. [Indicators 28 and 29]

Task 22: Establish a centre for artistic research at the University, creating a more effective system of identifying, stimulating, and financing at the Ministry of Science, Education, and Sports and Ministry of Culture.

GOAL 7: ENABLE TRANSFER OF KNOWLEDGE AND TECHNOLOGY

Task 23: Initiate a scientific–technological park. [Indicator 30]

Task 24: Stimulate transfer of knowledge and technologies through licencing, founding spin-off companies, as well as other types and forms of collaboration with industry and economy. [Indicator 31]

Task 25: Encourage the establishing of innovation clusters. [Indicator 32]

Task 26: Set up an office for transfer of technology at the University. [Indicator 33]

Task 27: Draw the appropriate documents necessary for the managing of intellectual capital of the University (Statute on intellectual ownership). [Indicator 34]

GOAL 8: STRENGTHEN THE INFLUENCE OF UNIVERSITY UPON ECONOMY AND INDUSTRY

Task 28: Stimulate the founding of local companies with the application of industrial achievements directly resulting from research conducted at the University, as well as create new jobs in industry and economy. [Indicator 35]

Task 29: Stimulate the university components to elaborate measures and action plans of influencing industry and economy within their scientific strategies. [Indicator 36]

Task 30: Stimulate and promote all forms of lifelong education with particular emphasis upon the education of adults.

Task 31: Stimulate and increase the active participation of the University in all aspects of cultural life of the region.



Indicators

Indicator 1: Decision taken by the University Senate on the determined research profile of Split University according to excellence indicators.
Responsible persons: Science Committee

Indicator 2: Electronic system for obtaining and analysis of information on scientific activities is currently in progress. The indicators will consist of the Statute on Electronic Information System which will determine which data is to be entered and by whom, as well as the annual report which is to be delivered to the Senate by vice-deans in charge of science and in which the system data will be presented.
Responsible persons: Science Committee and vice-deans in charge of science.
Deadline for establishing the functional electronic information system and drawing the Statute: 31st March 2009

Indicator 3: Statute defining the criteria for setting up centres of excellence based on the financial means allotted to projects at their disposal, quotations, publications, and other indicators of excellence. The Statute will define how excellence centres will be established, how they are to be monitored, and how they will cease to exist.
Responsible persons: Science Committee.
Deadline for drawing the Statute: 31st March 2009.

Indicator 4: Statute on the criteria of selecting the best doctoral candidate at the University for the previous academic year, as well as form of the award.
Responsible persons: Science Committee.
Deadline for drawing the Statute: 31st December 2008

Indicator 5: Statute on the best mentor and the form of the award.
Responsible persons: Science Committee
Deadline for drawing the Statute: 31st December 2008

Indicator 6: Statute on awards to the best graduate students (per area of study).

Indicator 7: Statute on awards to the best post-graduate students (per area of study).

Indicator 8: Number of successfully defended doctoral dissertations at the University from 2003 onwards – to be specified according to scientific areas (natural, technical, biomedical, social sciences and humanities).

Table: Number of doctoral dissertations at University of Split (per component)

	NUMBER OF DOCTORAL DISSERTATIONS				
	2003	2004	2005	2006	2007
Faculty of Economics	1	1	2	1	2
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	1	3	4	3	4
Faculty of Science					
Faculty of Kinesiology **					
Faculty of Philosophy			0	0	0
Faculty of Civil Engineering and Architecture	2	2	2	3	1
Faculty of Catholic Theology					
Faculty of Chemistry and Technology	2	2	1	1	5
Faculty of Medicine	3	1	7	7	10
Maritime Faculty	0	0	0	0	0
Faculty of Law	4	1	1	1	1
Academy of Arts	0	0	0	0	0
University Department of Marine Studies					
Interuniversity Study of Mediterranean Agriculture					
University Department of Polytechnical Studies					

Table: Number of doctoral dissertations at University of Split per area of study

	NUMBER OF DOCTORAL DISSERTATIONS				
	2003	2004	2005	2006	2007
Natural sciences					
Technical sciences					
Biomedical sciences					
Biotechnical sciences					
Social sciences					
Humanities					

Indicator 9: Number of students currently enrolled for doctoral studies at the University

Table: Number of students currently enrolled for doctoral studies at the University of Split per component

	NUMBER OF STUDENTS				
	2003	2004	2005	2006	2007
Faculty of Economics	-	-	-	20	25
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	-	-	-	37	30
Faculty of Science					
Faculty of Kinesiology **					
Faculty of Philosophy			0	0	0
Faculty of Civil Engineering and Architecture	0	0	1	0	13
Faculty of Catholic Theology					
Faculty of Chemistry and Technology	0	2	2	2	0
Faculty of Medicine	15	26	24	-	24
Maritime Faculty	0	0	1	1	0
Faculty of Law					
Academy of Arts	0	0	0	1	0
University Department of Marine Studies					
Interuniversity Study of Mediterranean Agriculture					
University Department of Polytechnical Studies					

Indicator 10: Number of junior researcher at the University of Split on 30th September 2008 – data should be specified according to whether the study is financed by the MSES (Ministry of Science, Education, and Sports) or industry and international projects

Table: Number of junior researchers at the University of Split per component on 30th September 2008, specified according to the source of financing

	MSES	INDUSTRY AND INTERNATIONAL PROJECTS
Faculty of Economics	22	-
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	53	
Faculty of Science	17	
Faculty of Kinesiology **	-	
Faculty of Philosophy	24	
Faculty of Civil Engineering and Architecture	22	0

Faculty of Catholic Theology	0	
Faculty of Chemistry and Technology	16	0
Faculty of Medicine	34	
Maritime Faculty	6	
Faculty of Law	14	
Academy of Arts	8	
University Department of Marine Studies	-	
Interuniversity Study of Mediterranean Agriculture	-	
University Department of Polytechnical Studies	-	

Indicator 11: Number of published papers which are recognised as belonging to the highest category in particular areas in academic promotion (granting tenures) – (2003–2007)

Table: Number of papers given the highest category in academic promotion at the University of Split per component

	NUMBER OF PAPERS
Faculty of Economics	
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	91
Faculty of Science	327
Faculty of Kinesiology **	-
Faculty of Philosophy	144*
Faculty of Civil Engineering and Architecture	332
Faculty of Catholic Theology	89*
Faculty of Chemistry and Technology	255
Faculty of Medicine	430
Maritime Faculty	226
Faculty of Law	195
Academy of Arts	60
University Department of Marine Studies	-
Interuniversity Study of Mediterranean Agriculture	-
University Department of Polytechnical Studies	-

* for social sciences and humanities the number represents only papers marked A1 according to the Statute

Indicators 12: Number of papers published in journals indexed in one of the following bibliographic bases: CC/SCI/SSCI (2003–2007)

Table: Number of papers indexed in one of the following bibliographic bases: CC/SCI/SSCI at the University of Split per component

	NUMBER OF PAPERS
Faculty of Economics	-
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	91
Faculty of Science	320
Faculty of Kinesiology **	-
Faculty of Philosophy	8
Faculty of Civil Engineering and Architecture	240
Faculty of Catholic Theology	-
Faculty of Chemistry and Technology	255
Faculty of Medicine	430
Maritime Faculty	30
Faculty of Law	-
Academy of Arts	5
University Department of Marine Studies	-
Interuniversity Study of Mediterranean Agriculture	-
University Department of Polytechnical Studies	-

Indicator 13: Number of quotations according to Thomson Scientific database on 30th September 2008

Table: Number of quotations according to Thomson Scientific database at the University of Split per component

	NUMBER OF QUOTATIONS
Faculty of Economics	-
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	921
Faculty of Science	10753
Faculty of Kinesiology **	-
Faculty of Philosophy	116
Faculty of Civil Engineering and Architecture	1057
Faculty of Catholic Theology	-
Faculty of Chemistry and Technology	3183
Faculty of Medicine	3252
Maritime Faculty	66
Faculty of Law	-
Academy of Arts	-
University Department of Marine Studies	-
Interuniversity Study of Mediterranean Agriculture	-
University Department of Polytechnical Studies	-

*the data is constantly updated

Indicator 14: Ratio between number of published papers given the highest category in a particular area according to the Statute on academic promotion and number of teachers (assistant professors, associate professors, full professors) – from 2003 to 2007, specified by area of study

Table: Ratio between indexed journals and number of teachers at the University of Split per component

	RATIO BETWEEN INDEXED JOURNALS AND TEACHERS
	2003.-2007.
Faculty of Economics	
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	1,407
Faculty of Science	7,4
Faculty of Kinesiology **	
Faculty of Philosophy	5,5
Faculty of Civil Engineering and Architecture	8,7
Faculty of Catholic Theology	3,71
Faculty of Chemistry and Technology	4,7
Faculty of Medicine	4,3
Maritime Faculty	15,07
Faculty of Law	
Academy of Arts	7,5
University Department of Marine Studies	
Interuniversity Study of Mediterranean Agriculture	
University Department of Polytechnical Studies	

Table: Ratio between number of indexed journals and teachers at the University of Split per area of study

	RATIO BETWEEN INDEXED JOURNALS AND TEACHERS
	2003 – 2007
Natural sciences	
Technical sciences	
Biomedical sciences	
Biotechnical sciences	
Social sciences	
Humanities	

Indicator 15: Ratio between number of published papers indexed in CC/SCI/SSCI and number of teachers (assistant professors, associate professors, full professors) – from 2003 to 2007, specified by area of study

Table: Ratio between CC/SCI/SSCI journals and number of teachers at University of Split per component

	RATIO BETWEEN CC/ SCI/SSCI JOURNALS AND TEACHERS
	2003–2007
Faculty of Economics	
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	1,407
Faculty of Science	7,3
Faculty of Kinesiology **	
Faculty of Philosophy	0,3
Faculty of Civil Engineering and Architecture	6,3
Faculty of Catholic Theology	
Faculty of Chemistry and Technology	4,7
Faculty of Medicine	4,3
Maritime Faculty	2
Faculty of Law	
Academy of Arts	0,625
University Department of Marine Studies	
Interuniversity Study of Mediterranean Agriculture	
University Department of Polytechnical Studies	

Table: Ratio between CC/SCI/SSCI journals and number of teachers at the University of Split per area of study

	RATIO BETWEEN CC/SCI/SSCI JOURNALS AND TEACHERS
	2003–2007
Natural sciences	
Technical sciences	
Biomedical sciences	
Biotechnical sciences	
Social sciences	
Humanities	

Indicator 16: Ratio between number of published papers given the highest category according to the Statute on academic promotion in a particular area, and papers indexed in CC/SCI/SSCI, whose authors and co-authors are junior researchers and other associates, and the number of junior researchers at University of Split per component – from 2003 to 2007, specified by area of study.

Table: Ratio between number of published papers given the highest category according to the Statute on academic promotion in a particular area, whose authors and co-authors are junior researchers and other associates, and number of junior researchers at University of Split per component – from 2003 to 2007, specified by area of study.

	RATIO BETWEEN PAPERS AND JUNIOR RESEARCHERS
	2003–2007.
Faculty of Economics	
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	0,331
Faculty of Science	
Faculty of Kinesiology **	
Faculty of Philosophy	1,13
Faculty of Civil Engineering and Architecture	1,1
Faculty of Catholic Theology	
Faculty of Chemistry and Technology	4,8
Faculty of Medicine	
Maritime Faculty	3,1
Faculty of Law	
Academy of Arts	0,266
University Department of Marine Studies	
Interuniversity Study of Mediterranean Agriculture	
University Department of Polytechnical Studies	

Table: Ratio between journals indexed CC/SCI/SSCI whose authors and co-authors are junior researchers and other associates, and number of junior researchers at University of Split per component.

	RATIO BETWEEN JOURNALS AND JUNIOR RESEARCHERS
	2003–2007
Faculty of Economics	
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	0,331
Faculty of Science	
Faculty of Kinesiology **	
Faculty of Philosophy	0
Faculty of Civil Engineering and Architecture	0,4
Faculty of Catholic Theology	
Faculty of Chemistry and Technology	4,8
Faculty of Medicine	
Maritime Faculty	1,2
Faculty of Law	
Academy of Arts	4
University Department of Marine Studies	
Interuniversity Study of Mediterranean Agriculture	
University Department of Polytechnical Studies	

Table: Ratio between number of published papers given the highest category according to the Statute on academic promotion in a particular area, whose authors and co-authors are junior researchers and other associates, and number of junior researchers at University of Split per area of study

	RATION BETWEEN PAPERS AND JUNIOR RESEARCHERS
	2003–2007
Natural sciences	
Technical sciences	
Biomedical sciences	
Biotechnical sciences	
Social sciences	
Humanities	

Table: Ratio between journals indexed CC/SCI/SSCI whose authors and co-authors are junior researchers and other associates, and number of junior researchers at University of Split per area of study

	RATIO BETWEEN JOURNALS AND JUNIOR RESEARCHERS
	2003–2007
Natural sciences	
Technical sciences	
Biomedical sciences	
Biotechnical sciences	
Social sciences	
Humanities	

Indicator 17: Number of scientists with Ph.D.s employed at the University who have taken their doctoral degrees abroad per component

Table: Number of scientists with Ph.D.s taken abroad

Faculty of Economics	4
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	3
Faculty of Science	3
Faculty of Kinesiology **	
Faculty of Philosophy	7
Faculty of Civil Engineering and Architecture	2
Faculty of Catholic Theology	3 ⁰
Faculty of Chemistry and Technology	1
Faculty of Medicine	4
Maritime Faculty	2

Faculty of Law	-
Academy of Arts	0
University Department of Marine Studies	-
Interuniversity Study of Mediterranean Agriculture	-
University Department of Polytechnical Studies	-

Indicator 18: Determine criteria and establish a system of support to scientific and academic publication and organising scientific conventions and conferences

Indicator 19: Amount of financing allocated to science at the University: items specified according to source of financing: MSES (Ministry of Science, Education, and Sports), NSF (National Scientific Foundation), Unity Through Knowledge Fund, collaboration with regional economy, international projects. Display separately information on financing scientific projects, minor equipment, capital major equipment, and junior researchers. Initial situation illustrated by data pertaining to projects carried out in 2004 and 2007.

Table: Financing and subsidy for science at University of Split specified by source per component for 2004 and 2007 (figures rounded to thousands)

	IZNOS U KN PO IZVORU FINANCIRANJA ZA GODINE 2004. I 2007.							
	MSES		NSF	UTF	REGIONAL ECONOMY		INTERNATIONAL PROJECTS	
	2004.	2007.	2007.	2007.	2004.	2007.	2004.	2007.
Faculty of Economics	265.000,00	401.000,00	-	-	-	547.000,00	89.000,00	-
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	1.440.000,00	1.779.000,00					-	382.000,00
Faculty of Science	906.000,00	980.000,00	96.000,00	-				450.000,00
Faculty of Kinesiology **								
Faculty of Philosophy		337.000,00	-	-		10.000,00		877.000,00
Faculty of Civil Engineering and Architecture	1.053.000,00	1.469.000,00	-	-	136.000,00	76.000,00	432.000,00	328.000,00
Faculty of Catholic Theology		20.000,00	-	-				
Faculty of Chemistry and Technology	852.000,00	655.000,00	0	0	0	0	0	64.000,00
Faculty of Medicine	767.000,00	1.508.000,00	886.000,00	-			11.000,00	30.000,00
Maritime Faculty	113.000,00	183.000,00	-	-	-	-	-	-
Faculty of Law	154.000,00	230.000,00	-	-				10.000,00
Academy of Arts	166.000,00	27.500,00	0	0	0	0	15.000,00	0
University Department of Marine Studies		120.000,00	-	-				
Interuniversity Study of Mediterranean Agriculture			-	-				
University Department of Polytechnical Studies			-	-				

Table: Science financing by MSES specified by type at University of Split per component for 2002–2006 and 2007 onwards (figures rounded to thousands)

	AMOUNT OF MSES FINANCING (IN HRK) PER TYPE FOR 2002–2006 AND 2007 ONWARDS									
	PROJECTS – TOTAL		CAPITAL EQUIPMENT		MINOR EQUIPMENT		JUNIOR RESEARCHERS			
	2002.-2006.	2007. ONWARDS	2002.-2006.	2007. ONWARDS	2002.-2006.	2007. ONWARDS	2002.-2006.	2007. ONWARDS	2002.-2006.	2007. ONWARDS
Faculty of Economics	1,404,000,00	1,311,000,00	-	-	123,000,00	-	-	9,953,000,00	2,262,000,00	
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	6,260,000,00	3,487,000,00*	2,557,220,00	1,700,822,00	1,618,297,00	551,000,00	15,407,827,00	9,616,795,00		
Faculty of Science	4,222,000,00	3,150,000,00								
Faculty of Kinesiology **										
Faculty of Philosophy	167,000,00	674,000,00	0	0	43,000,00	142,000,00	2,599,000,00	1,947,000,00		
Faculty of Civil Engineering and Architecture	5,395,000,00	2,996,000,00	3,354,000,00	172,000,00	-	-	8,497,000,00	5,351,000,00		
Faculty of Catholic Theology		60,000,00								
Faculty of Chemistry and Technology	3,840,000,00	3,656,000,00	1,860,000,00	0,00	1,410,000,00	601,000,00	6,463,000,00	3,303,000,00		
Faculty of Medicine	4,600,000,00	3,047,000,00*		1,320,000,00		688,000,00	5,842,000,00	1,971,000,00		
Maritime Faculty	565,000,00	549,000,00	-	-	28,000,00	184,000,00	1,756,000,00	1,025,000,00		
Faculty of Law										
Academy of Arts	784,000,00	150,000,00	297,000,00	0,00	0,00	0,00	2,580,000,00	1,705,000,00		
University Department of Marine Studies										
Interuniversity Study of Mediterranean Agriculture										
University Department of Polytechnical Studies										

*instalments paid to date

Indicator 20: Amount of financing and subsidy to scientific research allocated by public sector, regional economy, and international projects (2003–2007), number of projects, and amount allocated to each particular project

Table: Amount of financing and subsidy to scientific research allocated by public sector, economy and industry, and international programmes specified by type of financing at University of Split per component (2003–2007) (figures rounded to thousands)

	AMOUNTS (IN HRK) PER TYPE OF FINANCING 2003–2007		
	PUBLIC SECTOR	REGIONAL ECONOMY	INTERNATIONAL PROGRAMMES
	2003–2007	2003–2007	2003–2007
Faculty of Economics	621.000,00	145.000,00	61.000,00
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture			
Faculty of Science			
Faculty of Kinesiology **			
Faculty of Philosophy	34.000,00	10.000,00	283.797,00
Faculty of Civil Engineering and Architecture	-	439.000,00	1.856.000,00
Faculty of Catholic Theology			
Faculty of Chemistry and Technology	0	0	0
Faculty of Medicine			83.000,00
Maritime Faculty	0	0	0
Faculty of Law			
Academy of Arts	200.000,00		
University Department of Marine Studies			
Interuniversity Study of Mediterranean Agriculture			
University Department of Polytechnical Studies			

Indicator 21: Ratio between research subsidy allocated by MSES (junior researcher salaries, capital and minor equipment not included) and number of staff (all scientists officially registered, except for junior researchers) – initial situation illustrated by data obtained for 2002-2006 and 2007 onwards

Tablica: Ratio between research subsidy allocated by MSES and number of teachers at University of Split per component

	RATIO PER YEAR	
	2002–2006	2007 ONWARDS
Faculty of Economics	20.637,07 kn	15.987,80 kn
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	81.295,38 kn	37.491,96 kn*
Faculty of Science		
Faculty of Kinesiology **		
Faculty of Philosophy	8.631,7894 kn	19.531,25 kn
Faculty of Civil Engineering and Architecture	19.145,50 kn	26.709,20 kn
Faculty of Catholic Theology		
Faculty of Chemistry and Technology	28.373,33 kn	24.874,96 kn
Faculty of Medicine	46.000,00 kn	30.470,00 kn
Maritime Faculty	3.054,05 kn	4.357,14 kn
Faculty of Law		
Academy of Arts	97.967,5 kn	18.750 kn
University Department of Marine Studies		
Interuniversity Study of Mediterranean Agriculture		
University Department of Polytechnical Studies		

*instalments paid to date

Indicator 22: Number and amount of financing of projects subsidised by MSES at University of Split and number of papers published in the respective project period

Table: Number and amount of financing of projects subsidised by MSES at University of Split per component and number of papers published in the respective project period

	2004			2008		
	NUMBER OF PROJECTS	AMOUNT	NUMBER OF PAPERS	NUMBER OF PROJECTS	AMOUNT	NUMBER OF PAPERS
Faculty of Economics	8	264.410,00	n/a	17	437.000,00	n/a
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	29	1.440.000,00	15	26	1.707.752,00*	17
Faculty of Science	14	905.660,00				
Faculty of Kinesiology **						
Faculty of Philosophy	4	164.000,00		12	337.000,00	25
Faculty of Civil Engineering and Architecture	18	1.053.000,00	518	17	1.469.004,00	149
Faculty of Catholic Theology	1	60.000,00				
Faculty of Chemistry and Technology	14	851.200,00	16	14	746.249,00	14
Faculty of Medicine	12	766.660,00	90	37	1.657.650,00*	
Maritime Faculty	3	113.000,00	260	3	183.000,00	33
Faculty of Law		153.340,00				
Academy of Arts	5	165.830,00	20	2	150.000,00	4
University Department of Marine Studies						
Interuniversity Study of Mediterranean Agriculture						
University Department of Polytechnical Studies						

*instalments paid to date

Indicator 23: Number of scientific projects and amount allocated to University of Split by the public sector and regional economy

Table: Number of scientific projects and amount allocated to University of Split per component

	NUMBER OF PROJECTS AND AMOUNT			
	PUBLIC SECTOR		REGIONAL ECONOMY	
	2004.	2008.	2004.	2008.
Faculty of Economics	1 project/ 1.033.500,00	3 projects/ 1.700.000,00	-	1 project/ 250.000,00
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture				
Faculty of Science				
Faculty of Kinesiology **				
Faculty of Philosophy	0	0	0	0
Faculty of Civil Engineering and Architecture	-	-	2 projects/ 136.000,00	5 projects/ 116.000,00
Faculty of Catholic Theology				
Faculty of Chemistry and Technology	0	0	0	0
Faculty of Medicine				
Maritime Faculty	0	0	0	0
Faculty of Law				
Academy of Arts	0	0		
University Department of Marine Studies				
Interuniversity Study of Mediterranean Agriculture				
University Department of Polytechnical Studies				

Indicator 24: Number of doctoral candidates currently employed at University of Split financed by the public sector, regional economy, and international sources

Table: Number of doctoral candidates currently employed at University of Split financed by the public sector, regional economy, and international sources per component

	NUMBER OF DOCTORAL CANDIDATES					
	FINANCED BY PUBLIC SECTOR		FINANCED BY INDUSTRY / ECONOMY		FINANCED BY INTERNATIONAL SOURCES	
	2004.	2008.	2004.	2008.	2004.	2008.
Faculty of Economics	-	4	-	-	-	-
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture						
Faculty of Science	0	0	0	0		
Faculty of Kinesiology **						
Faculty of Philosophy	0	0	0	0	0	0
Faculty of Civil Engineering and Architecture	0	0	0	0	0	0
Faculty of Catholic Theology						
Faculty of Chemistry and Technology	0	0	0	0	0	0
Faculty of Medicine	57					
Maritime Faculty	0	0	0	0	0	0
Faculty of Law						
Academy of Arts	0	0	0	0	0	0
University Department of Marine Studies						
Interuniversity Study of Mediterranean Agriculture						
University Department of Polytechnical Studies						

Indicator 25: Number of scientific projects financed by international programmes and amount allocated

Table: Number of scientific projects financed by international programmes and amount allocated to University of Split per component

	INTERNATIONAL PROJECTS			
	NUMBER OF PROGRAMMES		AMOUNT ALLOCATED (IN HRK)	
	2004.	2008.	2004.	2008.
Faculty of Economics	-	-	-	-
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture	0	4	0	446.238,00
Faculty of Science		4		6.400.800,00
Faculty of Kinesiology **				
Faculty of Philosophy		4		876.997,00
Faculty of Civil Engineering and Architecture	1	1	432.000,00	394.000,00
Faculty of Catholic Theology				
Faculty of Chemistry and Technology	1	2	0	97.600,00
Faculty of Medicine	2	3	10.500,00	No instalments so far
Maritime Faculty	0	0	0	0
Faculty of Law		1		10.000,00
Academy of Arts	0	0	0	0
University Department of Marine Studies				
Interuniversity Study of Mediterranean Agriculture				
University Department of Polytechnical Studies				

Indicator 26: Number of junior researchers financed by international programmes

Table: Number of junior researchers financed by international programmes at University of Split per component

	RATIO PER YEAR	
	2004.	2008.
Faculty of Economics	-	-
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture		
Faculty of Science		
Faculty of Kinesiology **		
Faculty of Philosophy	0	0
Faculty of Civil Engineering and Architecture	0	0
Faculty of Catholic Theology		
Faculty of Chemistry and Technology	0	0
Faculty of Medicine		
Maritime Faculty	0	0
Faculty of Law		
Academy of Arts	0	0
University Department of Marine Studies		
Interuniversity Study of Mediterranean Agriculture		
University Department of Polytechnical Studies		

Indicator 27: Statute containing defined criteria of excellence for artistic-research activities

Indicator 28: Number of artistic-research projects and amount allocated (Table 24).

	NUMBER OF PROJECTS AND AMOUNT ALLOCATED PER YEAR	
	2004.- 2007.	2008.
Faculty of Civil Engineering and Architecture	0	0
Academy of Arts	0	0

Indicator 29: Number of junior researchers in artistic-research projects (Table 25).

	NUMBER OF JUNIOR RESEARCHERS PER YEAR	
	2004.- 2007.	2008.
Faculty of Civil Engineering and Architecture	0	0
Academy of Arts	0	0

Indicator 30: Recently established scientific–technological park and its results

Indicator 31: Number of patents, licence contracts, projects in collaboration with regional economy, *spin-off* companies and their financial results

	NUMBER AND AMOUNT FOR PERIODS DESIGNATED							
	NUMBER OF PATENTS		LICENCE CONTRACTS		PROJECTS WITH INDUSTRY		SPIN-OFF COMPANIES	
	2004.- 2007.	2008.	2004.- 2007.	2008.	2004.- 2007.	2008.	2004.- 2007.	2008.
Faculty of Economics								
Faculty of Electrical Engineering, Mechanical Engineering, and Naval Architecture								
Faculty of Science								
Faculty of Kinesiology **								
Faculty of Philosophy	0	0	0	0	0	0	0	0
Faculty of Civil Engineering and Architecture	25	0	-	-	2 projects 136.000,00	5 projects 116.000,00	0	2 projects 136.000,00
Faculty of Catholic Theology								
Faculty of Chemistry and Technology	0	0	0	0	0	0	0	0
Faculty of Medicine								
Maritime Faculty	0	0	0	0	0	0	0	0
Faculty of Law								
Academy of Arts	0	0	0	0	0	0	0	0
University Department of Marine Studies								
Interuniversity Study of Mediterranean Agriculture								
University Department of Polytechnical Studies								

Indicator 32: Innovation clusters established

Indicator 33: Office for Transfer of Technology established at University of Split. Its achievement report.

Indicator 34: Statute on Intellectual Ownership, i.e. other documentation required

Indicator 35: Workshops dedicated to the topic: The Role of University in the Economy of the Region

Indicator 36: Drawing and elaborating of scientific strategies of each constituting component with the action plan of the correlation between the University and regional economy

** Faculty founded in September 2008, thus data for 2008 unavailable

