

UNIVERSITY OF NOVI SAD



UNIVERSITY GOVERNANCE AND MANAGEMENT – THE STRUCTURE, EXPERIENCES GAINED THROUGH THE PROJECT AND NEW CHALLENGES FOR IMPROVEMENTS

Contribution from the University of Novi Sad

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The Tempus Project MOREM

The Project Objectives and its realization (1st year)

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Objectives

The Tempus Project MOREM put forward the following objectives (summarized):

- Consistent reform processes at partner countries universities in line of Bologna process;
- Increase the participation of the universities from the Region countries in EHEA

Through:

- Strengthening the institutional and functional capacities of the universities from the Region what will contribute towards the realization of Bologna process activities
- Modernization of management structure and university services

More specifically these wider objectives should contribute to:

- Introduction of the university structure and management reform
- Improvement of central university services functioning and capacities
- Development and improvement of student services capacities

I. UNIVERSITY OF NOVI SAD TODAY

1. INTRODUCTION

1.1. Founding of the University

The University of Novi Sad (in further text UNS) was founded on 28 June 1960. Today it comprises 14 faculties located in the four major towns of the Autonomous Province of Vojvodina: Novi Sad, Subotica, Zrenjanin, and Sombor (Fig 1).

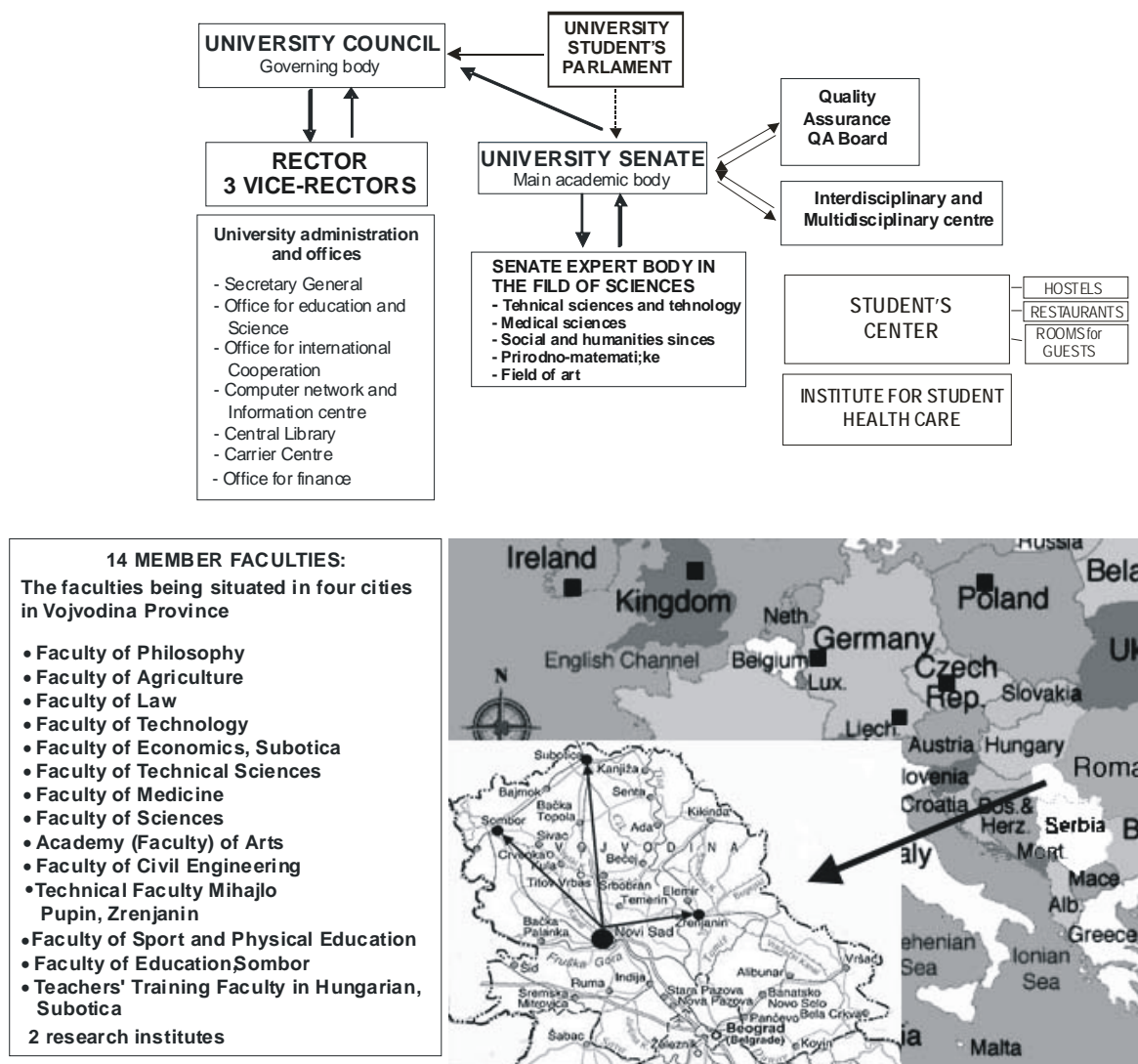


Fig. 1. Geographical position and structure of University of Novi Sad

UNS nowadays is a higher education institution, which is organized on the principle of semi-integrated university comprised of 13 faculties, which are legal entities. The University also comprises higher education units without the capacity of being a legal entity – Teachers' Training Faculty in Hungarian in Subotica as well as the Association of University Centres for Interdisciplinary and Multidisciplinary Studies and Developmental Research – ACIMSI. In December 2007, University reached a decision to include two research and developmental institutes into its organization:

- Research and Scientific Institute for Lowland Forestry and Environment
- Research and Scientific Institute for Food Technologies

Out of 14 faculties of the University of Novi Sad, 9 are seated in Novi Sad. Seven of them operate in modern buildings built on the University Campus. The Faculty of Medicine is located on the grounds of the Clinical Center, while the Academy (Faculty) of Arts is housed partially in the immediate city center and partially in the Petrovaradin Fortress. Four faculties are situated elsewhere: The Faculties of Economics, Faculty of Civil Engineering and Teachers' Training Faculty in Hungarian are in Subotica, the "Mihajlo Pupin" Technical Faculty is in Zrenjanin, and the Faculty of Education is in Sombor.

The University is comprised of the following faculties in order of their founding:

Faculty	Year of founding	NUMBER OF STUDENTS				Number of teaching staff
		First level	Second level	Third level	TOTAL	
FACULTY OF AGRICULTURE	1954.	3417	92	15	3524	242
FACULTY OF PHILOSOPHY	1954.	4332	196	27	4555	376
FACULTY OF TECHNOLOGY	1959.	997	4	11	1012	130
FACULTY OF LAW	1959.	5358	97	4	5459	71
FACULTY OF MEDICINE	1960.	3237	-	249	3486	561
FACULTY OF ECONOMICS IN SUBOTICA	1960.	5582	357	27	5966	103
FACULTY OF TECHNICAL SCIENCES	1960.	9259	164	121	9544	621
FACULTY OF SCIENCES	1969.	5403	153	109	5665	313
FACULTY OF SPORT AND PHYSICAL EDUCATION	1974.	1385	9	-	1394	45
ACADEMY (FACULTY) OF ARTS	1974.	779	42	-	821	251
FACULTY OF CIVIL ENGINEERING IN SUBOTICA	1974.	584	9	8	601	51
'MIHAJLO PUPIN' TECHNICAL FACULTY IN ZRENJANIN	1974.	2644	188	-	2832	78
FACULTY OF EDUCATION IN SOMBOR	1993.	809	128	-	937	107
TEACHERS' TRAINING FACULTY IN HUNGARIAN IN SUBOTICA	2006.	226	50	-	276	34
TOTAL	-	44,012	1,489	571	46,072	2,983

Fig 2. Faculties in numbers: students, teaching staff (academic 2007/08)

1.2. Facts and Figures

The UNS is now the second largest among six state universities in Serbia. The main University Campus, covering an area of 259,807m², provides the UNS with a unique and beautiful setting in the region and the city of Novi Sad. Having invested considerable efforts in intensifying international cooperation and participating in the process of university reforms in Europe, the UNS has come to be recognized as a reform-oriented university in the region and on the map of universities in Europe.

Today there are around 45,000 students (56% women) studying at the University. There are around 3,000 teaching staff and 1,200 non-teaching staff.

1.3 Location of the University

The UNS is situated on the University campus (totals 259,807 square meters) on the left bank of the Danube river near Novi Sad's city centre (fig. 3). In addition to the administrative building, the



Fig. 3 University Campus in Novi Sad

university campus comprises the faculties, the Student centre with two Student Dormitories and the Central Student Cafeteria, an Apartment Hotel for temporary accommodation of young teaching fellows and research assistants, the Student health centre and the Centre for Physical Education.

There are also many other scientific, professional, cultural, information, sports and similar student organizations. The student square on the University campus adds to the attractive surroundings.

1.4 Accreditation

This is a new process in Serbia and its first cycle started in December 2007. It is equally applicable to both state and private higher education institutions. External control is done by the National Accreditation Commission (member of IENQAAE), which is carried out in 5 cycles, issues certificates on accreditation of the higher education institutions (universities and faculties) and of their study programs. These certificates are the basis for issuing work permits for those institutions by the Ministry of Education. Criteria and standards for accreditation were devised by the National Council elected by the Assembly of the Republic of Serbia.

13 out of 14 faculties have passed the process of accreditation, with the overall number of 236 study programmes (fig. 4). One faculty (Academy of Arts) with 55 study programmes is currently in the process of accreditation that should be finished by the end of 2009. UNS, as a higher education institution, was accredited in the 3rd cycle.

Faculty	NUMBER OF STUDY PROGRAMMES			
	B Sc	Integ.*	M Sc	Ph D
FACULTY OF AGRICULTURE	13	1	13	4
FACULTY OF PHILOSOPHY	19		16	7
FACULTY OF TECHNOLOGY	5		5	5
FACULTY OF LAW	2		2	1
FACULTY OF MEDICINE	2	3	1	3
FACULTY OF ECONOMICS IN SUBOTICA	9		10	3
FACULTY OF TECHNICAL SCIENCES	16		18	11
FACULTY OF SCIENCES	13		15	11
FACULTY OF SPORT AND PHYSICAL EDUCATION	3		1	1
ACADEMY (FACULTY) OF ARTS	-	-	-	-
FACULTY OF CIVIL ENGINEERING IN SUBOTICA	2		2	1
'MIHAJLO PUPIN' TECHNICAL FACULTY IN ZRENJANIN	4			
FACULTY OF EDUCATION IN SOMBOR	4		3	7
TEACHERS' TRAINING FACULTY IN HUNGARIAN IN SUBOTICA	4		3	-
TOTAL	94	4	91	47

* Integrated basic and academic studies

Fig 4. Accreditation of faculties in numbers

2. UNIVERSITY AUTONOMY

2.1 Legal status of institutions

University is an independent higher education institution which, by conducting its activities, combines education and research, professional and/or artistic work as components of a single higher education process. A university may have all types and levels of study.

The autonomy of a university and of other higher education institutions shall, in accordance with the present Law, imply:

- 1) the right to decide on study programmes
- 2) the right to determine the rules of study and admission requirements
- 3) the right to regulate the internal organization
- 4) the right to adopt a Statute and elect the managing and other bodies in accordance with this Law
- 5) the right to elect teaching and other staff
- 6) the right to issue public documents

- 7) the right to handle financial resources in conformity with the Law
- 8) the right to the use of property in conformity with the Law
- 9) the right to decide on the acceptance of projects and on international cooperation.

The University also has the right to establish enterprises, having a certain share in the initial capital. It also has opportunities of other types of investment to a certain degree.

2.2 Autonomy of faculties

The autonomy of each faculty is reflected in the fact that they can independently make decisions on their organization, study programmes, etc. through the bodies whose structure is similar to the one on the university level (Council, Senate, Dean, Vice-Deans), and which are selected independently from the university and in which there are no university representatives. Financing and handling of resources is independent from the university.

Centralization on the level of the Integrated University is seen in adopting the highest legal act of each faculty – its Statute and some of the decisions necessary for the harmonious work of all faculties and their networking (multidisciplinary and interdisciplinary studies, reaserach work, etc.). However, the majority of representatives in the governing structures at the University (Council) come from the faculties, and its expert body (Senate) is made up of faculty deans, so they directly influence the decision-making process. Decisions are made by the majority of votes (50% + 1 of the total number of members), which represents the centralized model of governance. Practice has shown that faculties, even when voting against a certain decision, abide by it and carry it out in their work, although there seem to be no panalties for acting outside that decision envisaged by the law or legal acts. Therefore, for example, a special expert body of the Senate - Board for Quality Assurance and Internal Evaluation checked the accreditation documentation of each faculty and study programme, which was then adopted by the Senate. Without this approval, faculties did not apply for the accreditation process. This procedure is not determined by law and it was applied only by UNS. This might also be the reason why excellent results in the process of accreditation were achieved.

2.3. Organization and Management of the University

Law on Higher Education defines the main University managing, academic and executive The Statute of the higher education institution determines its bodies, in accordance with the Law and the Founding Act (fig 1).

- ✓ A higher education institution shall have an administrative body **COUNCIL** (“Savet”) – administrative / managing / governing / body,
- ✓ professional bodies **SENATE** (“Senat”) – professional / academic / expert / body
- ✓ **RECTOR / DEANS** (“organi poslovođenja”) – executive bodies,
- ✓ The **Expert Councils** for interdisciplinary and multidisciplinary studies and commissions and boards for specific questions concerning educational and scientific activity.
- ✓ and **Students’ Parliament**.

University determines its internal structure in accordance with the Law. Besides the faculties that comprise the University, the structure of the internal organization consists of:

- 1) The Rector's Office
- 2) Secretariat
- 3) ACIMSI – Association Center for Interdisciplinary and Multidisciplinary Studies and Research
- 4) International office
- 5) Central Library
- 6) ARMUNS - Academic Computer Network

2.3.1 Rector and vice-rectors

The Law on Higher Education gives University the autonomy to elect its Executive Body – Rector (fig. 5, fig 6) after it has constituted its administrative and professional bodies. The University Statute defines the election procedures, conditions of appointment and competences of the Rector.

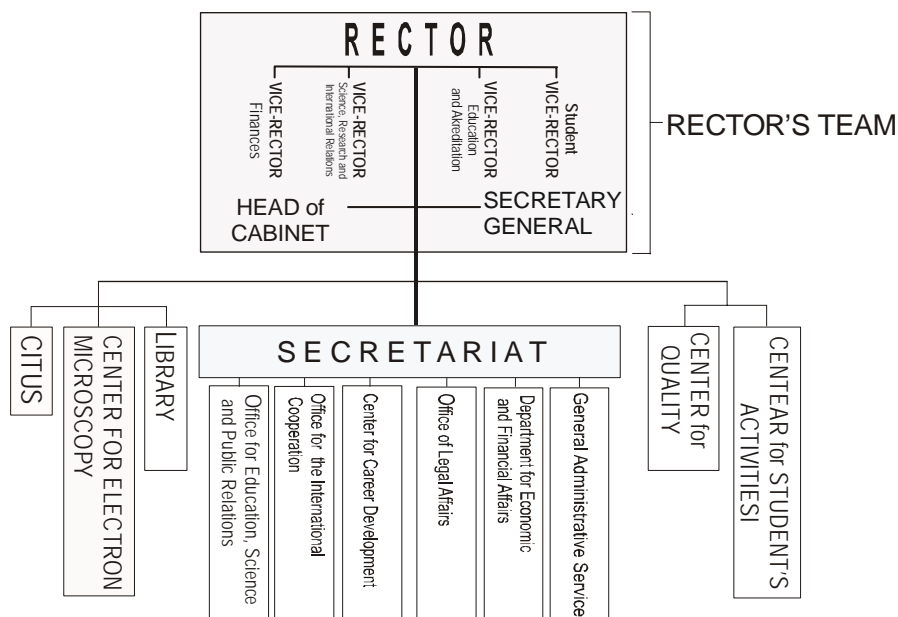


Fig. 5 Rector's office

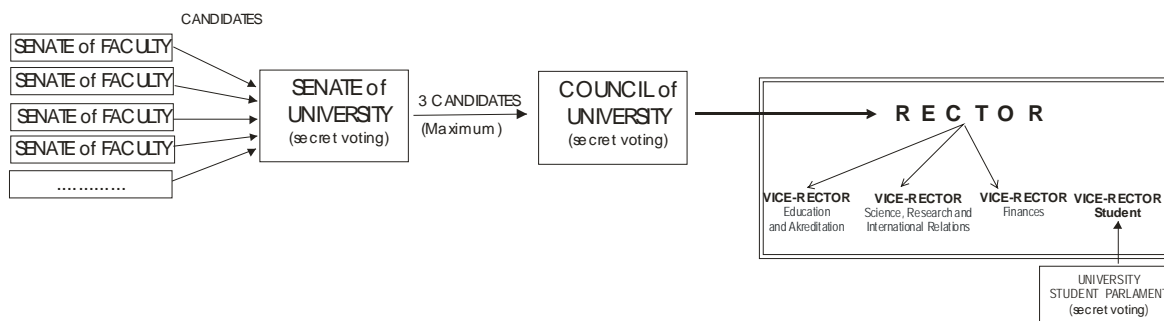


Fig. 6. Procedure for electing Rector and Vice-Rectors

- (1) Rector is the executive body of the University
- (2) Rector of the University is elected without a competition, from the rank of full professors who are employed full time at that higher education institution
- (3) Rector's term of office is 3 years, with a possibility of one re-election
- (4) On the proposition of the Senate, Rector is being appointed or relieved from duty by University Council through anonymous majority vote.

The Law has given autonomy to the universities to regulate the way the vice-rectors are elected. The Vice-Rectors of the University of Novi Sad are being appointed together with the Rector, as part of his/her team (there is no separate voting procedure; by voting for the Rector, the members of the council are voting for the entire team). The Rector chooses the Vice-Rectors. This is regulated by the Statute of the University of Novi Sad.

There are three vice-rectors at the University of Novi Sad. Each is responsible for one of the following areas:

- Education and Accreditation
- Science, Research and International Relations
- Finances

The Rector convenes the Collegium of the University, a consulting body for surveying questions and making policy decisions within the range of the Rector's responsibility, and for developing mutual

cooperation and coordination among the faculties. The Collegium consists of the Rector, Vice-Rectors, Secretary General and the Deans of all of the faculties comprising the University.

Expert positions at the University are filled by officers employed in the Expert Offices, with 36 employees. (fig. 4).

2.3.2 Decision-making structures

Both University and its faculties deal with administrative matters on their own levels and in accordance with their statutes and other legal acts.

2.3.2.1 University Council

The **University Council** (fig 1., fig. 7) has 25 members: 17 faculty representatives, 4 representatives appointed by the founder (provincial government) and 4 students elected by the Student Parliament. Rector and his team have the obligation to participate in the work of the Council, but do not have the right to vote.

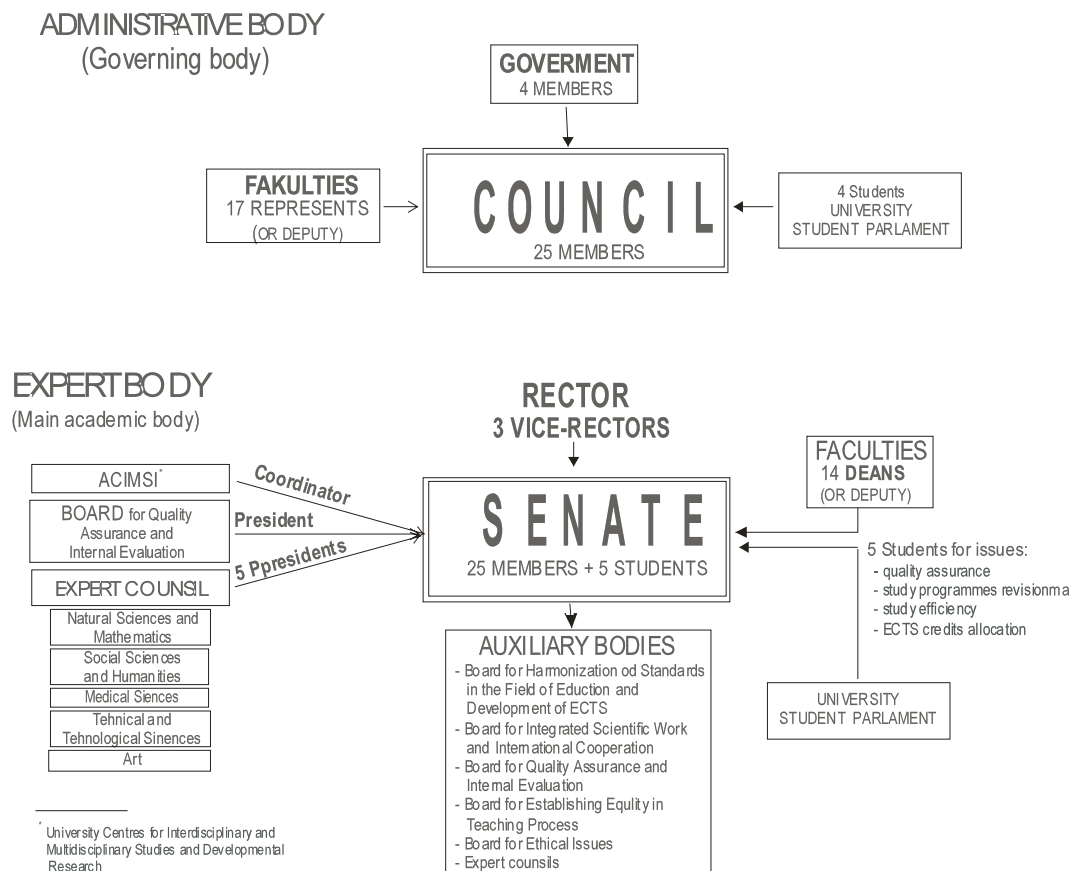


Fig. 7 Decision-making structure – COUNCIL AND SENATE

The University Council appoints permanent boards for special issues under its authority, as well as auxiliary expert and advisory bodies. The University Council appoints permanent boards such as:

- 1) Strategic Development Board
- 2) University Campus Maintenance and Development Board
- 3) Statutory Board
- 4) Financial Board
- 5) Board of Entrepreneurial Activities Control and Improvement
- 6) Capital Investment Board

2.3.2.2 University Senate

Senate (fig 1., 5) is the highest expert body of the University. It is comprised by 25 members: rector, who is presiding, three vice-rectors, all faculty deans (14), coordinator of ACIMSI, president of the Board for Quality Control and 5 presidents of Expert councils. In the decision-making process regarding the issues of quality assurance, study programmes revision, study efficiency analysis and ECTS credits allocation, there are 5 student representatives appointed by the University Student Parliament who participate in the work of the Senate.

In the strategic sense, the academic issues are mostly dealt by the University Senate and its auxiliary bodies (five expert councils):

- 1) Board for Harmonization of Standards in the field of Education and Development of ECTS Credit System
- 2) Board for Integrated Scientific Work and International Cooperation
- 3) Board for Quality Assurance and Internal Evaluation
- 4) Board for Establishing Equality in Teaching Process
- 5) Board for Ethical Issues
- 6) Expert councils.

The Senate comprises 5 expert councils, taking into account that all scientific fields are involved within the following expert councils:

- 1) Expert Council for Natural Sciences and Mathematics
- 2) Expert Council for Social Sciences and Humanities
- 3) Expert Council for Medical Sciences
- 4) Expert Council for Technical and Technological Sciences
- 5) Expert Council for Arts

2.3.2.3 University Student Parliament

University Student Parliament is a body through which students exercise their rights and protect their interests at the University.

2.4 Financial issues

2.4.1 *Funding*

The University is a legal entity, as well as all of its faculties and R&D institutes. The State allocates funding, in accordance with the budget and the approved annual financial plans of higher education institutions, directly to all legal entities. There is no lump-sum allocated only to the University.

Research priorities are mostly dealt by the faculties, since all research and scientific work is being done at faculty level.

The system of financing is regulated by the Law on Higher Education. For each faculty there is a quota for the number of students who are financed from the budget - budget-funded students, as well as the number of students who are financing themselves – self-financing students (fig. 9). The total number of students at each faculty is determined by the accreditation criteria (human resources, facilities, equipment, etc). Each faculty receives a different amount per student depending on its real costs for conducting the teaching process – faculties for technical and natural sciences receive more than the ones in humanities and social sciences.

FACULTIES (14 faculties)	TOTAL INCOME	BUDGET INCOME		OWN INCOME	
		Education	Sciences	Income from tution fees	Otrher income
.....					
.....					
TOTAL	55.000.000	49,65%	11.42%	17.89%	20.48%

Fig 8. Budget of UNS across items (expressed in €)

The restrictions on how the money can be spent come from the annual financial plan, budget law, other legal acts – the spending has to be strictly in accordance with the previously defined purpose and the institution can bear consequences / sanctions for acting outside the given legal boundaries.

Money which comes from state funds has to be spent according to the submitted and adopted plan. Plan is adopted by the University Council. The State determines the basic salary cost, but each legal entity can, according to another law, increase the individual salary level at state-funded institutions by 30%.

The higher education institution is allowed to place its own free financial resources in business arrangements with commercial banks (e.g. into savings, short-term stocks & bonds...). It is important to emphasize that these activities are monitored by and documented in the Ministry of Finance – Treasury Administration.

State funded higher education does not build up reserves, since the higher education institutions are making annual financial plans where all funds are meant to be spent in the year an annual plan is valid for.

There is a big difference between the state and private higher education institutions. The regulations are the same for all state universities. Private ones are more free to make financial decisions.

2.4.2 Property

The University, as a public institution, doesn't own property. It is the beneficiary of the state owned buildings and land. However, the property received as endowment or donations can be freely managed by the University.

Immovable property and other resources provided by the Republic for the purpose of the establishment and work of a higher education institution shall be owned by the State and cannot be disposed of without the consent of the founder. The immovable property and other resources may be used only for the purpose of performing the activities as set out in the Law. That which is acquired through bequest or donation is owned by the acquiring institution of higher education. A higher education institution is independent in running the endowments, foundations or trust funds entrusted to it, in accordance with the Law.

2.4.3 Investments

Investments at higher education institutions are allowed and highly desirable. Usage of funds for the purpose of investments has to be in accordance with the annual financial plan of the institution. This document has to include plans for investments and has to be submitted to and adopted by the direct budget beneficiaries (republic ministry or provincial government). In the case of budget funds, the usage of the approved resources has to be spent in accordance with the Budget Law, Annual financial plan and a specified purpose of spending. Even in the case of institution's own funds, a previous approval from an authorized body is required. The main bodies for dealing with the issues of long-term investments are:

- ❖ The National Investment Plan (NIP) for the Republic of Serbia.
- ❖ The Fund for Capital Investments of APV for the Autonomous Province of Vojvodina The University of Novi Sad sends its annual financial statement to the Executive Council of the Autonomous province of Vojvodina (under the Omnibus Law, certain competences are transferred from the Republic of Serbia to the Autonomous Province of Vojvodina – this is why the University of Novi Sad sends its annual financial statements to Provincial authorities).

2.4.4 Assets

In the case of assets which are provided by the state (as the university founder), they cannot be bought or sold (disposed of) without prior consent of the state, in accordance with the law and other legal acts.

University can only freely manage those parts of its assets where it has the ownership right over them. Those assets have been acquired through endowments, donations, gifts or investments of its own funds earned through providing services, selling of goods or other sources.

All university assets can only be managed strictly in accordance with their purpose and the annual plan.

2.5 Personnel

2.5.1 Academic staff

In terms of academic staff (both permanent and contractual), the University (Senate) decides on their promotion (assistant professor, associate professor, full professor, visiting professors, professors emeriti) according to Law, strictly defined university procedures and university legal acts. However, the employment itself is carried out by the legal entities (faculties with the status of legal entity). There are regulations at the level of the University of Novi Sad which determine the transfers within the institution.

Teaching at the University and at the faculties is entrusted to professors and teaching associates who hold academic titles prescribed by law. Scientific and artistic activities are taught by researchers and art associates holding corresponding titles prescribed by law. The University monitors the advancement of its professorial staff and takes measures for their further advancement. It participates in the procedure for awarding doctorate degrees at the faculties and take measures for improving the financial status of professors, teaching associates and researchers. The University confers doctorates in interdisciplinary and multidisciplinary fields, and honorary doctorates. The Rector of the University officially confers the doctorate degree on candidates who have acquired their doctorates at the University and its faculties.

The University devotes special attention to young lectures and researchers. To create the best possible conditions for their work and development, the University provides temporary housing for about 150 young lecturers and scientists, together with their families, in two halls of residence built specifically for them.

2.5.2 Non-Academic staff

In terms of the administrative, technical and other non-academic staff, the legal entities decide on their employment, without prior approvals by the University itself.

2.6 Students

The decision on the overall number of students and the number of students per study program is made by the University, having in mind the accreditation standards. These numbers are partially made of budget-funded students and self-financing students. The number of the budget-funded students is determined by the founder (e.g. Republic / Province) for each academic year, based on the proposal given by the university. Making of this proposal is the responsibility of the University Senate.

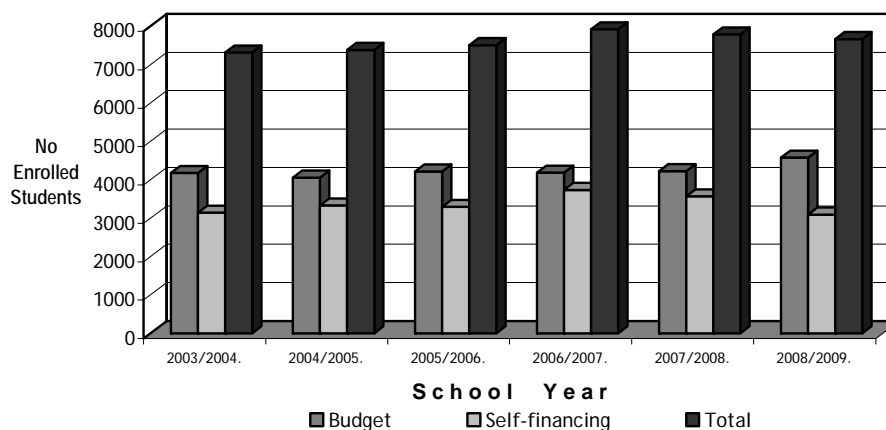


Fig 9. Number of students enrolled in the first year of studies – View per school years

General requirements are given and determined by the State (minimum number of entry points, minimum number of points needed for budget-funded students...). In terms of special quotas, the State reaches a decision on them every academic year.

Everything that has to do with specific study programs (content of entrance exams, other conditions of enrolment, fees for self-financing students, other costs of enrolment, dates of entrance

exams...) is defined and determined by the higher education institution. The University itself is opening the enrollment competitions.

The Law on Higher Education determines the minimum number of ECTS credits for the enrolment into the second and third cycle of studies.

3. SWOT ANALYSIS

The success depends on many factors, some of which we can influence and some cannot. If we know how much we can accomplish, how much we are willing to do and how far we can go, we have an advantage in the scope of business. Swot analysis is a tool for getting to know the situation at the university and its constituent parts – faculties. The data received through this analysis is used for planning and making decisions that are strategically important, for formulating the mission and vision of further development, determining priority actions in the following periods, etc.

The leadership of the university has to get to know the university thoroughly, especially because there are various external factors that influence its potential, development, as well as survival. Knowing its advantages and disadvantages can be essential for its success.

3.1 Strengths

1. University of Novi Sad is a reform-oriented university, open for international cooperation;
2. Internationalization is one of the priorities of the University leadership;
3. Implementation of the Bologna Process is in progress and shows results, which supports the University's position within the European Higher Education and Research Areas;
4. Establishment of bodies that have a function in conducting of standards and quality control
5. Number and quality of human resources in teaching – professors and associates
6. Orientation towards change – advancement of management system in accordance with the trends in the European higher education and reserach areas (participation in the MOREMS project)
7. Readiness to keep the integrity of UNS, contrary to the disintegration aspirations. Puruant to this, a good basis for the development of integrative functions of the University has been achieved. On the other hand, there is a direct cooperation with the relevant national and provincial bodies in charge of teaching and reserach.
8. A strategic plan for the development of science and reserach has been adopted recently at the level of the Republic of Serbia – Ministry of Science.
9. Participation in international educational, research and mobility programs is highly recommended and supported by the University leadership, regardless of the level of its realization: departments, faculties, student organizations, the Rectorate;
10. There are reliable partnerships with European and world universities in many fields of study;
11. EU mobility schemes are highly welcome and needed among student population. There is sufficient interest among academic staff to coordinate mobility programs academically.
12. Focus of UNS to a large extent, on mobility programs, which has resulted in very successful application and realization of all available EU-funded projects for mobility of students and staff (e.g. two networks within the Erasmus Mundus External Cooperation Window – BASILEUS and JOIN-EU SEE).
13. Students are generally interested and motivated to gain a study abroad experience;
14. Special strenght is present through motivated, experienced, responsible and skilled employees - its highly qualified and young staff, which is always willing to take up new challenges and finding best solutions for the most adequate results. Rich experience gained in a relatively short time in combination with exceptional motivation and responsible approach towards tasks are the main strenghts of the Office.
15. Successful internal mechanisms for dissemination of information regarding all international opportunities for learning, studying, teaching, research and mobility and practical support;
16. Center for Career development and advising of students (Career Center) is part of the University of Novi Sad. Two psychologists employed in the Career Center have the education and expertise

in Transactional analysis. A proposal for the national strategy for career development and advising of the Republic of Serbia has been made.

17. Establishment of the student parliament and participation of students in all aspects of work of UNS. Good cooperation with student organizations.

3.2 Weaknesses

1. Insufficiently defined «pyramid» of needed experts (B SC, M SC, Ph D) from the side of the founder.
2. Frequent changes of legal acts related to higher education.
3. Insufficient and inadequate financing of certain levels of study.
4. Lack of consensus on strategic development plans of UNS.
5. Lack of understanding of the Bologna process, individual disregard of standards and quality control, especially when it comes to the evaluation of the teaching process and teaching staff.
6. Slower and difficult acquisition of modern technologies for the purpose of teaching.
7. Absence of integral information connectedness between UNS and its faculties.
8. Absence of a central university building. The problem of space is something which all units within the university secretariate have to deal with.
9. Absence of a professional manager who would deal with the issues of the organization of units within the university secretariate has often led to the ambiguous division of work and poor cooperation between services and units.
10. Taking into account the wide spectrum of tasks being dealt with in the Rectorate and a small number of staff, the employees are often in the position to take up jobs which are outside their scope of defined duties and this is something which endangers the quality of the realization of main duties.
11. Unfavourable ratio in the employment of teaching and non-teaching staff (3:1)
12. Better teamwork is needed among different central services of the University (legal, accounting, international, etc.)
13. The process of saradnje of the University of Novi Sad is not at the same level across faculties and departments;
14. Having in mind a considerable number of teaching and research staff at the University of Novi Sad, the number of those actively involved in international projects is lower than what should be expected from an internationally-oriented university;
15. There is a lack of a central university standardized information package, since the educational and research component is part of its individual faculties and the level of its quality, from an outside perspective, varies considerably;
16. There is a low number of study programs delivered in English in general. There is insufficient information in English on study programs and student life for incoming students and staff at faculty level;
17. There are no straightforward and equal recognition procedures for outgoing students and they vary considerably from faculty to faculty;
18. Absence of specially earmarked university funds for the development of international cooperation through bilateral agreements or system of grants.
19. Career Center is not an organizational unit of the University, as well as the similar centers at other universities – it doesn't have the means to associate with the National resource center. There are no contact points at individual faculties and student organizations.
20. Insufficient attention placed on Long Life Learning
21. Insufficient involvement of doctoral students in research projects.
22. Absence of a relevant data base on students of UNS, especially with regards to following their further careers after the completion of studies.
23. Insufficient monetary compensation (salaries) for the invested work, both with regards to teaching and administrative staff.

3.3 Opportunities:

1. Efforts to reorganize management and involve professionally oriented individuals.
2. Appointment of individuals of high quality at two key leadership positions – university secretary general and university manager.
3. Better set-up of the qualificational and organizational structure of the Secretariate for producing better results.
4. Introduction of an integrated information system at the University would significantly improve the quality of work, since it would allow the performance of one part of the work in less time and open up new communication channels. This kind of advancement of work would create enough space to raise the quality of the existing human resources and their professional improvement through additional and further education.
5. Applying for more national and international scientific projects, especially with multi-disciplinary and interdisciplinary characteristics. This would be a significant source of funding, base for the publishing of scientific papers and an opportunity for closer networking of researchers from different centers in the country and abroad.
6. Through to the eligibility of state, the UNS is becoming eligible for more EU-funded projects.
7. Funds for international cooperation and mobility available at the level of Autonomous Province of Vojvodina;
8. Freer movement of students and staff with the abolishment of visas.
9. General academic orientation towards upholding Bologna principles and increasing mobility;
10. Further implementation of Bologna action lines (ECTS, comparable degrees, etc.)
11. Selection of young and enthusiastic teams.
12. Acquisition of contemporary journals and organization of courses for learning foreign languages.
13. Memberships in national and international associations.
14. Attention of wider public.

3.4 Threats:

1. Political and economic uncertainties with regards to EU integrations;
2. Ineligibility of the state to participate in some EU-funded academic programs;
3. Insufficient harmonization of study programmes with the needs and conditions of the labour markets;
4. Uncontrolled expansion of higher education institutions, mostly based on private capital, founded on the premise of profit rather than quality;
5. Significant levels of «brain-drain»;
6. Insufficient acknowledgement of the importance of higher education and research as one of the priorities of the country's development and due to that, insufficient funding of state universities, can be a demotivating factor and the reason for the decrease in the established quality of results achieved.
7. Lack of real logistical support for incoming students and staff that is outside the university (student centers, etc);
8. Financial difficulties within the country, which affect the funds given to encourage the process of internationalization at the level of universities.
9. The existing manner of applying defined procedures allows for large arbitrariness of individuals, which can lead towards discrepancy in the functioning of UNS and reflect negatively on the work of all its segments.
10. Leniency of policies under the pressure of students leads to quantity vs. quality issues.

II. NEW CHALLENGES FOR IMPROVEMENTS

General considerations

Considering the objectives, both wider and specific, it could be concluded that project activities until now put forward the major issues connected to the overall intentions of university modernization and efficiency in fulfilling the new mission in line with knowledge society goals. The importance of the two foremost driving forces in the fundamentals of contemporary higher education policies should also be recognized – the phenomenon of mass higher education and internationalization of higher education. Both aspects put forward new challenges for the HE education systems and institutions in the Region, which is still not fully incorporated in the all European higher education programs and platforms.

The project activities gave good insight into the structure, organization, internal regulations, decision flows and financial regulations of the partner universities, offering the exchange of experiences and sharing the examples of good practice. The national legal environment was also outlined, not to the details but still to the level being sufficient to correlate the regulations on the system level with the university practice.

It can be concluded that there are considerable differences among the Higher Education Systems of participating countries, including the higher education structure (types of institutions, both state or public and private), regulating bodies on the system level, quality insurance institutions and practice and financial regulations. There are also remarkable differences among participating countries in the concepts of higher education law concerning university governance structure, which influence to considerable extent the institutional level regulations and practice.

At the first site there is a difficulty to compare and draw up the conclusions on the best practice in the differently shaped governance systems, following versatile schemes of decision making bodies and their responsibilities. But it is in the same time useful and challenging in understanding how different approaches can still contribute to the coherent goal, defining the weak points which could be eliminated by proper refinements or restructuring. The starting point for the analysis towards reaching good or even optimal solutions for particular institution or the HE system is to consider that there is never final, unique and uniform solution for good governance neglecting the system/institutional background. One could accept that all of different types of institutions are legitimate if they rest on pronounced philosophy and culture, the governance being not neutral technical matter but the concept opened for further improvement and reconstruction.

Moving to the institutional level, the differences among the partner universities are even more pronounced at the first site. The legal framework gives the main outline of governance system, being more or less detailed and in that way the write and responsibility to the institutions to develop within this “boundaries” there strategies and policies, internal governance and management system. But, at this level, framed by system regulations and legal framework, is still easier to compare the practices and to speculate about the possible improvement of the internal governance system itself and, at the first place, about implementing those solutions coming from the best practice examples not necessarily being restricted by the overall governance framework.

Also to mention that when the topic and the experience exchange among partner universities comes to more specific areas of university governance and structure, is easier to identify both differences and similarities and to estimate the advantages and drawbacks, being very important for the university reform strategy towards the common EHEA goals developing within Bologna process. This is pronounced when considering academic issues, since it can be concluded that the convergence in terms of the architecture of the study system, underlying principles of new teaching paradigm, internalization policies and the interconnected regulations schemes is much higher than in the other areas. But there are still many opened questions, some of them being common for even very different university structures and other performances, so confirming the importance to discuss and analyze the specific issues in order to find optimal solutions. The good example is the area of the third cycle, PhD studies, with the necessity to answer many common questions posing to relatively new experience on European scene. As it was shown through the project activities, the analysis of the practices, even still being versatile in terms of decision making flows, types and content of institutional regulations, is the best basis to develop the convergence policies within institutions and for the capacity building in both academic and professional sectors.

A special area that is of high importance is the university autonomy and responsibility, since the fundamental understanding of the interconnection of these two main principles is crucial for the full autonomy in the basic sense. Even if the university autonomy is guaranteed through legal framework, the really degree of autonomy in long terms is always balanced by the mechanisms of responsibility performances to all of the stakeholders, like in the interconnected vessels. Many details in attempt to establish autonomy- responsibility equilibrium remain open and certain questions are highly disputable.

In case of state and public universities, the accountability issue is of not less importance, especially when it comes of restrictive funding problems being the characteristic of almost all public higher education sectors. Pressures to reduce public sources are visible in Serbia as well, in the same time the mechanisms of funding being not properly developed in correlation to new study system introduced and new approach to quality insurance. Balance between autonomy and accountability puts forward the question of efficiency, having in mind that the efficiency concept should not be simplified just in financial terms and that it has to be balanced with quality issues. Anyway, more efficient use of public funds and search for alternative sources are imperatives for university governance towards more openness to economy and society. Academic community mostly interprets the commercialization of higher education as an extreme threat for academic core values. Another triangle could be drawn: academic aspirations, market forces and democratic culture. We would agree with the opinion that neither the influence of the market nor the legislative burdens on higher education can be seen only as the threats to academic aspirations; they can be also supportive “external” factors which make these aspirations feasible. This is of particular interest when considering the relationship between external and internal governance in higher education, the Project offering a good platform for the dialogue and analysis.

Management of HE and universities is area characterized by not only different stages of development, but also dissimilar concept of professional versus academic management. The universities in the Region are still academically managed, professional management concept being in the nucleation state with some promising results. In moving from this point on, it is partially recognized that the development of professional management structures both on university and faculty level will not necessarily jeopardize the interest and aspiration of academic staff and bodies. It is important to overcome a kind of barrier in peoples mind, inherited from the past self-management system, that professional management will bring more

bureaucracy from one site and loss of power for academics on the other. There is still misunderstanding of what professional management means in practice, distinction between management and governance being not comprehensible. Professionalisation of the public management and administration of higher education is, according to our opinion, important move forward, with increasing but still far from satisfactory number of study programs in the Region for being directed to these knowledge, competences and skills. Just to mention as an example that the open access to European funds both for education and research puts forward the necessity of the new approach to project management for most universities in the Region, which would shift the burden of lot of paper work in application and realization phase of the projects from academic staff to professionals being focused on project management itself.

Even if one considers the definition of governance in a very simple sense as “an exercise of authority, control and direction”, the multidimensional concept of higher education is what brings the complexity to the issue. Many publications, conference papers and books are concerned with the issue. This paper has no intention to go to more details of very broad spectra of both theoretically posed and practically catalyzed questions concerning HE governance. Based on the awareness of the background of HE system in Serbia and legal framework, experiences gained on institutional level and examples of good practice presented through Project activities, besides the general considerations above some specific areas of the HE governance on different levels will be outlined and the possible improvement directions identified.

Higher education governance – institutional and system level

Higher education governance is a multidimensional concept. We can roughly distinguish three levels or structural dimensions of higher education governance:

- internal or institutional governance - governance of higher education institution
- external or systematic - governance of higher education system
- international or global - governance of higher education systems within an international (global) perspective, that is in Bologna process

In the following text some topics and experiences on the system and institutional level are discussed, giving the picture of environment important for the governance improvement in the broader sense.

Current situation and developments in Serbian Higher Education System

The HE in Serbia passed through serious reform processes in the current decade, the concept and the results being recognized as valuable and very successful in the both reports on Ministerial Conferences related to Bologna process in last years. Signing Bologna declaration in 2004, the new Law on Higher Education adopted in 2005 encompassed new architecture of the HE system based on main Bologna process action lines, in terms structural and institutional reforms, new approach to the study system underlining the necessity of curriculum reform, introduction of external and internal quality insurance system and new approach to student participation. Serbian higher education system is faced at present with the need to critically reconsider the obtained results and to continue the reform processes, enhancing the quality and relevance of the higher education institutions, as well as the general harmonization with the current EU developments.

On-going process of transformation since 2006 on institutional and system level

- o **Complete reconstruction of the national system of studies:**

Three tier system is introduced as Bachelor 180(240) ECTS + Master 60(120) +180 PhD ECTS; the decision about workload/duration of Bachelor and Master Level being left to the institution (faculty/university) as autonomous write.

Expected developments: The student workload on the first two cycles and their interconnection with the outcomes concerning the labor market needs still to be considered. PhD level as a new approach are imposing many questions concerning the orientation and expected length of studies, ratio of teaching to research activities, suitability of ECTS in evaluating necessary workload, legal status of PhD students, state participation in financing PhD (as well as preceding Master) level etc. Developments in institutional policy and strategy, institutional regulations, quality enhancement, exchange and dissemination of good practice are expected. The PhD studies are of crucial importance for university research programs and staff development, a second firm pillar for quality of higher education and knowledge based society. Just to mention some possibilities:

- Development of Doctoral School on the university level enhancing the interdisciplinary and multidisciplinary aspects of doctoral studies/research activities;
 - Strengthening international dimension of the third cycle/joint and double degree programs with partner universities.
- o **Reformed and/or curricula were introduced, based on learning outcomes and ECTS as obligatory, promoting new teaching paradigm; student evaluation introduced as standard procedure**

Expected developments: Balance between ECTS located to the courses and real student workload should be reconsidered in terms of outcomes, with the increased student participation and influence; *student in the center of learning process* paradigm and continuous evaluation of student work are giving promising results concerning student satisfaction and overall efficiency, being a good basis for further development; student evaluation is expected to be better interconnected with internal quality evaluation processes.

- o **Diploma Supplement is introduced as obligatory. New professional and academic titles defined by the National Council of Higher Education (NCHE), outlining the consistent and recognizable approach on the system level. National Qualification Framework has been outlined.**

Expected developments: The National Qualification Framework is still under development and is defined as one of top priorities on the system level.

- o **International cooperation and mobility of students and staff within European framework**

Re-establishment of international and regional cooperation and mobility has been defined as top priority on institutional and system level. TEMPUS program were from the very beginning one of the main catalysts in enhancing the staff exchange within projects with wider spectra of orientation, from curriculum development to more general issues and goals, as it is in the current TEMPUS MOREM project. FP5, FP6 and specially FP7 (full accesses for Serbian institutions) programs have attracted the attention of the universities, University of Novi Sad being very active and successful. The student mobility was enhanced through different programs. University of Novi Sad is for six years included in Campus Europe Project, which has similar goals to Erasmus, but with additional competences in the knowledge of the language of the country of exchange. In last two years Erasmus Mundus

External Cooperation window programs contributed very much to increase the number of exchanged students on all three cycles.

Expected developments: Full involvement in Erasmus program is expected to contribute to increase considerably the student exchange. The knowledge gained through former programs is very useful, but the capacity building of international offices is very important for the expected development. The professional support for European Research Area programs has also to be developed for the increased participation, the regional cooperation being considered as priority. Professional staff training is of high importance in both fields, international cooperation and project management.

o **Quality assurance system and accreditation**

The Law of Higher Education defined accreditation as obligatory for all types of institutions in HE system. The Commission for Accreditation and Quality Assurance was established on national level (on proposal of Rectors Conference and adopted by National Assembly), with the quality standards adopted by NCHE. The first cycle of accreditation is just about to be finished (all state universities being accredited), bringing the new experience of quality evaluation to the whole system.

The very demanding accreditation procedure was followed by development of internal/institutional quality standards, procedures and Quality Assurance bodies were introduced. University of Novi Sad has appointed the Quality Assurance Board as the main institutional body, the president being the member of the University Senate. This contributed to consistent internal standards, procedures and practice and to the new quality culture development.

Expected developments: After the completion of the first accreditation cycle, the standards applied should be reconsidered and further developed on the system level. The internal/institutional system is expected to be supported by professional staff and even more oriented to quality enhancement issues defined by in university strategic paper. Development of quality management system that matches European trends is institutional target.

o **Transparency - one of the main principles of the university procedures and activities towards increased responsibility**

University of Novi Sad pays attention transparency of all the procedures of decision making, university documents and standards, most of them being available through continuous updating of the web site content:

- Information available on the University web page in timely manner,
- PhD thesis available for the public insight,
- Information for students and teachers - active approach Analytical data on student enrollment and other student issues;
- Information on scholarships and educational programs, possibilities for student mobility;
- University Career Center established;
- Events Calendar – overview of the activities and current events available on the web-site;
- Academic Computer Network in continual development

Expected developments: The lack of compatible information system is a serious obstacle, as it will be later elaborated.

Governance and management

Concerning all of above mentioned topics on achievements and open questions as integral part of structural reform of higher education in Serbia, governance and management on both system and institutional level could be considered as crucial for further the strategic development of its framework. The governance structure should depict distribution of power and authorities in decision making and responsibilities, giving in the same time the insight in possible improvement actions/”opened space for changes” on different level.

o Governance on the level of HE system

The governance on the system level, as defined by Law, is characterized by new bodies responsible for strategic planning, quality assurance and policy decision making. The National Council of Higher Education, NCHE, as mentioned earlier, has high responsibility for strategic planning and decisions about main issues for the coherence of the system. The Council is independent body, being mainly constituted of academics proposed by Conference of Serbian Universities, CSU and Conference of the Schools of Applied sciences, and appointed by the decision of National Assembly. Minor number of members is appointed by the State and Provincial authorities, which is important as the connection of the state authorities as the Ministry of Education and Ministry of Science and Technology and this major HE body. Conference of Serbian Universities, CSU is the second important pillar being the elected body by all of accredited universities, having coordination role, rights of proposing major policy papers on higher education, as defined by Law, and harmonizing the development of the university structure taking into account at the same time of the diversity of Serbian universities and complexity of HE structure. Student Conference is the third pillar of the system, since the partnership should be realized through authentic student voice based on coordination on the system level.

Expected developments: The consensus about the necessity of further HE development in line with EHEA directs further actions on the system level. The national TEMPUS project which is expected to start in January 2010 is directed to the main issues on the system governance, incorporating also specific goals concerning the legal environment improvement based on the analysis of its application, university integration, further implementation of basic Bologna process action lines, in order to critically consider and propose the strategic decisions on the system level.

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o Governance on the institutional level

One of the main issues and concerning the improvement of the university governance structure which should be analyzed and discussed is the governance structure based on legal background in particular higher education system (Law, university decree/statute and other types of documents adopted by the bodies on the system/institutional level). This legal framework provided considerable space for internal regulations/university statute. According to the Law, University Council is the main governing body at the university level (Faculty Council for the faculty level) and the Statute is the key document structuring the institutional

level of governance. The Senate is the main body for academic body, the structure of the Senate being regulated by university statute. The law just outlines the Council structure (2/3 academics, 1/6 state and student representatives) and main areas of decision making (statute, strategic planning, finance). Statute regulates the internal governance to assure unified and coordinated activities of the higher education institution. The statutes are adopted by university/faculty councils, but the faculty statutes should be in accordance to the university statute, which is to be approved by University Council as the main governing body.

The Senate structure as well as the governance structure within institution is to be decided by institution itself, giving the broad space for the universities to develop their own policies and strategies and to reach the agreement on the university integration. The Law defines some integrative functions on the university level, establishment of unified standards of work of departments and services and unified standards for creating data bases of all units:

1. strategic planning;
2. adoption of study programs;
3. quality assurance and control;
4. enrolment policy;
5. election of teachers;
6. issuance of diplomas and supplement diplomas;
7. international cooperation;
8. investment planning;
9. employment policy planning and the hiring of teachers and associates;
10. establishment and development of a unified information system;
11. lifelong learning.

In the same time, the Law leaves the possibility to distribute legal entities on the faculty level. This structure, with faculties being legal entities, remains as dominant for the state universities in Serbia (6 out of 7 universities). The degree of functional integration on institutional level depends on the institutional policy and strategy.

Opened questions and expected developments: Internal integration of the university could be considered as top priority in establishing the university according to European standards. This topic is widely discussed on both system and institutional level. Only integrated university, with “one voice outside”, will be able to develop its own strategy and policies and taking the responsibility towards the state and society for its own development. But there are many opened questions and dilemmas when one comes to the model of functional integration versus centralization. Also, variation on the complexity of university structure, size and other characteristics impose that the solution about the optimal model of integration is at least not simple. The model should be carefully developed and considered in academic community, with the underlining principle of balanced between enhanced responsibility of university for strategic development and necessity of both power and responsibility distribution to different levels of decision making.

The fear that the integration should lead to centralization is still present in wider academic community, especially having in mind that the universities are very specific structures which have to promote and support the active approaches on all levels, starting from research groups, laboratories, departments, and faculties to the university level. The preferences of integration concept concerning the modern approach to interdisciplinary and multidisciplinary studies and research should be better explained and understood. Bringing in front the “broad picture” and development vision of the institution as the whole is still a great challenge for university managements and governance.

The governance and management structure is very closely related to the system of financing of state universities. The Law gives some possibilities of negotiation between institution and state, but this was never applied and the lump sum never transferred to universities or faculties. This topic is of special importance and has to be seriously reconsidered and reformed. It is also clear that in future higher education are to be supported increasingly by alternative funding, from business, endowment, and third stream activity, and for these reasons governments in the region should continue to amend higher education legislation to make it possible.

“The wider objective of the integration is to support university reforms as a result of an internal agreement in order to strengthen the idea of the university as an integral academic place and to link them with economic and social processes. It includes restoration and permanent maintenance of quality of communication between constituent units, prevention of parallel tracks of evolution and a multiplicity of disciplinary sectional interests and identities, development of the university database and the university management information system, development of a culture of integration and integration of student organizations.” Citation from external evaluation of University of Novi Sad.

Funding in HE

The current state funding system in Serbia has been evolving since the beginning of the 1990s. Due to higher demand coupled with lack of funds for HE, tuition fees were introduced as the form of students’ participation in costs. Over time, a three-tier system emerged, consisting of students financed entirely by the state, students financed partly by the state, and self-financed students. This system created a good basis for financial autonomy, particularly at universities/faculties attractive for the students. These independently realized funds became increasingly important to the universities/faculties; as a result, budgetary funds were gradually reduced. Universities/faculties began to share in the costs of their own activities and development.

According to the Serbian Law on Higher Education (the Law), the legal base for financing Serbian HEIs is a special sub-law called The Regulation of Norms and Standards of Working Conditions of Universities and Faculties for Activities Funded through the Budget (the Regulation). It was passed in 2002 and established a formula system to allocate the fixed budgetary funds to individual universities/faculties every year.

While the salaries of academic and non-academic staff are completely financed by the state budget, operational costs are covered both by state budget and by universities/faculties own realized incomes. Namely, the Regulation prescribes that the proportion of state funding operational costs will be up to the ratio of volume of state funding in the overall university/faculty income.

Norms and standards are used to determine the amount of budgetary resources needed for financing the following purposes in the field of education: operational costs, current and investment maintenance, employees’ salaries, library funding, scientific and professional training of employees, work with talented students, international cooperation, information systems development, publishing activities, student parliament work, and so on.

By specifying that state universities need to integrate and standardize various functions, the Law also seeks to permanently advance the educational and scientific-research activities being financed by the state budget. The functions requiring integration are: Establishment of unified work standards for departments and services and unified standards for database design within the framework of university; Strategic planning, investment planning,

employment policy planning; Adoption of study programs; Quality assurance and control; Enrolment policy; Election of teachers; Issuance of diplomas and diploma supplements; International cooperation; Unified information system development; Lifelong learning.

Four years after passing the Law, the special agreement negotiated between the universities and the government has not been realized. Reasons are numerous and open to discussion, but it should be emphasized that the Law has not provided all the prerequisites for implementing the Bologna processes. Compromise solutions in the Law have caused numerous problems in practice.

Most important reasons for the dearth of conclusive financing agreements are insufficient budgetary resources for financing HEIs as well as the lack of pertinent norms and standards in the reformed system of HE. The standards and norms used in the previous educational system became useless in the new system. The key elements in the applied formula systems were the number of budgetary financed students and the number of strictly determined group of students. The number of groups was unrealistically small, while the number of students in the groups was unrealistically large and self-financed students were not taken into consideration at all.

The core of the new educational system is individual students who, regardless of their mode of financing, are obliged to attend lectures regularly. In addition, they freely elect the courses they want to attend and the student group that they belong to, and form a large number of student groups with a small number of students in each group. In this way, obligations of employees are multiplied and a real need to employ new lecturers emerges, the problem of insufficient budgetary resources becomes insoluble.

The economic crisis has reduced the already modest volume of budgetary resources for financing educational activities of HEIs even further. The state budget covers 100% of the employees' salaries and partially finances other obligations in accordance with the Law. The above-cited integrative activities are not financed because there are no rules to determine them. However, there is a more serious problem. It is a parallel existence of autonomous and financially independent faculties in the structure of a university, which, in the specific legal environment, do not recognize the necessity of developing integrative functions and do not want to finance them by their own funds. Since integrative activities are the cornerstone of the future integrated university, it is safe to say that, without appropriate budgetary resources, the process of reforming higher education will be a significant burden for HEIs.

In providing funding from external sources, the state funding model in Serbia has characteristics of the three column model which is based on three elements in public funding: 1) stable basic funding, 2) performance-oriented funding based on performance indicators and an automatic calculation of budgets by formula and 3) innovation-oriented funding, based on financial pools distributed by procedures of programme funding or contract management. Namely, only the first of three elements has been realized in Serbia: stable demand-oriented basic funding and the other two elements - performance-oriented funding and innovation-oriented funding - are missing completely.

Funding models in HE are changing and many countries are replacing traditional models based on line-item and incremental budgeting with trends like lump-sum budgeting, formula funding, performance or target agreements. The customer base has evolved from viewing the university as a provider of educating to viewing it as a resource for lifelong learning. Research is becoming more global and competitive and universities are key drivers in global, national and regional economic development. To handle the increasing complexity of its activities, the university has to develop a new management model.

State universities in Serbia receive their financing from two key sources: the state budget and student tuitions. To diversify their funding sources, traditional HEIs in Serbia must start a process of transforming and developing their mission as institutions from one whose primary function is education to one that includes scientific and research work. Becoming education and research universities could open possibilities for numerous external funding sources while at the same time, advancing the quality of education. Serbia has initiated changes in its methods of financing HEIs with funding of the basic educational function being centralized and funding of scientific and research work being decentralized. The university after budgeting for integrative activities would distribute public funds for education to the faculties, and the faculties could allocate any income they have earned for their own purposes. New norms and standards would be in alignment with the reformed education system.

Information System

By the implementation of the Bologna standards into the HEIs in Serbia, the universities have met with numerous problems brought by the reforms. One of the most important problems appearing as the consequence of changes is information support to scientific and educational processes. To realize the missions of universities under new study conditions, the advancing of their internal and external communications is of a crucial importance. The external communication is done, before all, through the exchange of information and other forms of cooperation with the state authorities, home and foreign universities within the framework of initiatives in the field of advanced schools, while the internal communication is done between the members of universities.

The common integrative functions of universities mean the approach to all the information connected to the activities of their members (scientific and educational activities, entrance requirements, financial flows, international cooperation, and so on). To realize this concept, it was necessary to accomplish considerable connectivity and unity of the university information system.

The existing solutions in Serbia are built to support the pre-reform business processes of faculties. These solutions require a serious re-engineering to meet the newly created requirements of universities. Information systems now in use are built exclusively from the standpoints of faculties as departments, where the university and its needs were not taken into consideration so it can be concluded that the present form can't meet the new requirements of universities. The increasing role of universities has created a new situation founded in the legal frameworks, too. The universities have the task to find, i.e. to 'force' the way to get out from the cited situation.

The alternatives for establishing a uniform information system at the level of the University are the following:

The Complete development based on its own strength - This research means a serious engagement of the people employed at the University and faculties. The staff in non-teaching activities, i.e. the persons that could be completely dedicated to developing the system should take on the burden of such a development. The conclusion of the team is that there is not sufficient number of experts at the University who could completely dedicate themselves to developing the information system. In addition, there is not any organizational form where all the experts could work in harmony. Experts engaged in teaching are, before all, dedicated to teaching processes, and the staff carrying out informatics jobs at faculties and the University is completely engaged in the current activities. To determine for this form of development, it is necessary to establish an organizational form at the University with a responsibility for development where experts capable of developing the complex IS in

supporting the University business could be employed. Easy noticeable obstacles of this solution (financing, support of faculties, and so on) lead us to the conclusion that a longer time is necessary to realize this proposal.

The University own development based on the existing solution - If the University decides to take this alternative, the most qualitative solution is necessary to meet the newly created needs, to buy it from the owner and transfer the property to the University. It is also necessary to establish the organizational form to take care of implementation and functioning IS at faculties. The staff participated in building this IS should be employed in this body. Faculties that give the solution will remain further in the developing function. If they come to an agreement about delivering the solution at the hand of the University and financing the staff employed in the newly established body, such an approach could come to life. This implementation requires a detailed reengineering of business processes at faculties, and it could help in the coming accreditations.

Buying/renting of the finished solution - No considered solution is possible to implement easily. Any solution requires the reorganization of faculties. It also requires a long period to take part in redesigning solutions to meet the needs of the University and its members. This approach could make the result, but after a long period.

There are many possibilities in the realization of the University information system:

- To develop or by a new solution (completely independent from any solution currently used by the members of the University or based on one of this solution) which will cover all of the functionalities of the University members and completely fulfill their information needs.
- To define a minimum set of common functionalities which should be supported by the new solution, while the rest of their needs the University members would cover by self-developed extensions of this common solution.
- To integrate gradually the self-developed information systems of the University members, by implementing integration interfaces for horizontal and vertical joining.

Considering the influence of different factors and limited time it's very hard to decide which option is the most suitable for the University, but it is doubtless that in this initial phase is necessary to standardize minimal set of data for their vertical exchange with purpose of developing automated processes for their collecting in University's integrated database.