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**REFORMING THE STUDY PROGRAMS AND CURRICULA
AT THE UNIVERSITY OF BANJA LUKA
FROM THE PERSPECTIVE OF THE PROVISIONS
OF THE BOLOGNA DECLARATION**

A Case Study (January 2003)

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I. Introduction: Trends and Challenges facing the Higher Education System in Republika Srpska and Bosnia and Herzegovina

As it is stated in a World Bank study the educational system in Bosnia and Herzegovina represents a mixture of a standard system inherited from the former Social Federal Republic of Yugoslavia and highly decentralized policies and institutional frameworks established in the after-war period. That mixture results in an extremely expensive system with some major weaknesses in its effectiveness. In the present context each entity is in charge of the development of its own educational system, without the existence of any frameworks at the BH level that would regulate common policy. Moreover, the responsibilities, including financial aspects, allocated to each canton in the Federation results in further fragmentation. A central Ministry of Education exists in Republika Srpska, which is responsible for policy observation, planning and execution. In the Federation of Bosnia and Herzegovina some Cantonal Ministries of Education play that role together with the Federal Ministry of Education at the entity level. The Federal Ministry of Education is mostly in charge of the coordination of the policies among the cantons. Any broader common policy framework at the Bosnian or Federal level, common standards for the recognition or accreditation of the universities, or the mechanisms for the mutual validation of the university diplomas in Bosnia and Herzegovina do not exist so far.

According to some recent papers dealing with strategies of the development of educational sector in Bosnia and Herzegovina education can play a key role in sustainable repatriation, economical progress and the lowering of political tensions and ethnic conflicts. A UNDP research undertaken in 2000 showed that more than 60% of young people would leave this country if only they had an opportunity. One of the main reasons for that decision is inadequate educational system with bad governance, inappropriate infrastructure, obsolete teaching methods, inadequate way of grading and a very low level of research in comparison to the rest of Europe.

There are seven universities in Bosnia and Herzegovina. The University of Banja Luka is consisted of 13 faculties: Civil Engineering and Architecture, Electrical Engineering, Economics, Forestry, Mechanical Engineering, Medicine, Agriculture, Law, Mathematics and Natural Sciences, Technology, Philosophy and Physical Education and Sports and the Academy of Arts. 14427 full-time and part-time students are currently enrolled at the biggest university in Republika Srpska. The University of Serb Sarajevo, another university in our entity has 8079 students enrolled on the following institutions: Faculty of Electrical Engineering, Faculty of Economics – Serb Sarajevo, Faculty of Economics – Brcko, Faculty of Physical Education, Faculty for Production and Management, Faculty of Philosophy, Academy of Fine Art, Music Academy, Faculty of Medicine, Faculty of Mechanical Engineering, Faculty of Agriculture, Orthodox Spiritual Academy, Faculty of Law, Faculty of Dentistry, Faculty of Technical Science and Teacher Training Faculty.

Five universities exist in the Federation of Bosnia and Herzegovina. The University of Bihac is the smallest one in our country. It has a total of 4060 students enrolled on the following higher educational institutions: the Faculty of Law, the Faculty of Economics, Advanced Medical School and Islamic Pedagogical Academy. The University “Dzermal Bijedic” in Mostar-East has 3002 students studying at the following institutions: the Faculty of Law, the Faculty of Economics, the Faculty of Mechanical Engineering, Pedagogical Academy, Language Studies, Mediterranean Culture Studies and Information Technology Studies. The faculties of Sveuciliste in Mostar-West are the following: Agriculture, Economy, Civil

Engineering, Medicine, Pedagogy, Law and Mechanical Engineering. They also have the Academy of Fine Arts, Advanced Medical School and Journalism Study Center. Altogether they have 7504 students. The University of Sarajevo is the biggest university in Bosnia and Herzegovina with 34807 students enrolled on the following faculties: Architecture, Economics, Electrical Engineering, Criminology, Political Sciences, Physical Education, Transport and Communication Studies, Pharmacy, Philosophy, Civil Engineering, Mechanical Engineering in Sarajevo, Mechanical Engineering in Zenica, Medicine, Metallurgy and Materials in Zenica, Agriculture, Law, Mathematics and Natural Sciences, Dentistry, Forestry and Veterinary Medicine. They also have the Academies of Fine Arts, Arts and Performing Arts, Music Academy, Pedagogical Academies in Sarajevo and Zenica and Advanced Medical School. The University of Tuzla has 9016 students studying at the Academy of Drama Science and the following faculties: Special Education, Economics, Electrical Engineering, Philosophy, Mechanical Engineering, Medicine, Mining, Geology and Civil Engineering and Technology.

In all the cantons of the Federation apart from Tuzla, as well as in Republika Srpska, each faculty is legally treated as an individual institution. The universities are not juristic persons, but only loose associations with a limited number of responsibilities allocated to them according to the existing laws on higher education, such as international relations, the approval of curricula and syllabi, doctoral thesis or promotions. The proclaimed university autonomy cannot be fully achieved in all its segments, due to the fact that 50% of our University Senate members, which is the highest executive body, are appointed by political parties and in the majority of cases do not have any academic or scientific titles. When we add to that a fact that our higher education is almost entirely financed by corresponding governments the only breakthrough in that respect could be made by promoting the spirit of entrepreneurship. If we achieve to make 30% of our money on our own, we will significantly strengthen our independence as well.

Together with various academies and advanced schools there are altogether 102 legal subjects in Bosnia and Herzegovina that offer services in higher education with approximately 632 students each. All in all, more than 80000 young people are involved in the process of higher education in this country.

Although so far any policy documents regarding the engagement of the national higher education systems into the Bologna Process were not produced, the Republika Srpska Ministry of Education and the Federal Ministry of Education, Culture, Science and Sport established the Higher Education Coordination Board (HECB) jointly. All seven rectors and two representatives from both ministries take part in its work and the decisions are made by consensus. The body has several subcommittees, and the Rector of the University of Banja Luka chairs the Bologna Process Subcommittee. Six meetings of the subcommittee have been held so far, several issues have been discussed including the introduction of ECTS, diploma supplement, student mobility and accreditation, and various implementation documents have been prepared. The most important among them is a Letter of Intention signed by the two entity ministers, where they expressed their willingness to finally sign the Bologna Declaration together, following the Belgian example, in Berlin in September next year. The letter also stated their obligations when it comes to the implementation of the abovementioned document.

II. The state of curricula in view of the provisions of the Bologna Declaration

As we have stated in the European University Association's Trends III Questionnaire the academic staff, administrators and students at the University of Banja Luka are very much aware of the Bologna Process. We think that the situation at six other institutions of higher education in Bosnia and Herzegovina is very similar, because since 1996 all of us have been successfully working together within the frameworks of different international projects, such as Tempus. The attractiveness of the European Higher Education Area is out of question at least for our institution, so we have concluded that it is essential to make a rapid progress towards the EHEA until 2010. In order to reach the goal we see our opportunity in our specific diversity, ranging from the Mediterranean cultures studied in Mostar to chemical technology processes taught in Tuzla.

1. Changes of Curricula and their Development

The University of Banja Luka has developed its Institutional Development Plan for the period 2002 – 2010. Our main values stated in the document are: inheritance, ethics, leadership, communication, innovations, quality, learning, interdisciplinary work, responsibility and international reputation. Although the academic community is still waiting for the RS Ministry of Education to pass a new Law on Higher Education in this document we have planned a lot of tasks to be undertaken regardless the improvements in legislation that do not depend on us in order to achieve the following aims and objectives:

- 1) To remain the best educational center in Republika Srpska and become the best university in Bosnia and Herzegovina:
 - To understand and develop to a larger extent our inheritance and national culture
 - To become a center of academic excellence
 - To make more effective contribution to the development of state and economy
 - To lead the positive changes in society

- 2) To become a center of interest for students:
 - To development our enrollment plan in order to provide recruiting and keeping top-quality students preferring quality to number of students
 - To strengthen the students sense for patriotism and loyalty towards the University and society
 - To disseminate information on curricula and syllabi, as well as on free-time activities
 - To help students to reach highest academic standards
 - To have the orientation toward encouraging candidates to enroll on the disciplines with which it is easiest to find a job at a labor market
 - To develop students counseling office
 - To improve the quality of the University enrollment system
 - To strengthen good relationship between students, professors, and administrative staff
 - To develop a program for the identification of students with bad results and offer them necessary academic help
 - To provide scholarships
 - To include students in decision making
 - To provide student mobility

- 3) To develop curricula and syllabi according to European standards:

- To offer constantly clear programs for different disciplines and change them according to the 21st century needs
 - To strengthen selection through the development of programs that can cater the needs of the country and that can offer a clear picture of quality
 - To ensure that our curricula and syllabi are made according to international standards (ECTS)
 - To improve our curricula constantly by introducing new teaching methods
 - To enlarge academic qualities by including new information technologies in learning process
 - To provide necessary number of teaching staff
 - To develop institutional mechanisms for temporary critical revision of all study programs
 - To introduce interdisciplinary studies at the undergraduate level
 - To provide the access to the relevant data bases
 - To strengthen international study programs, including students mobility
- 4) To employ, motivate and award the best staff:
- To employ constantly new teaching staff, especially the best post-graduates
 - To improve the program of education for teachers and researchers
 - To keep the best teachers at the University and promote them
 - To ensure teaching staff takes part in decision-making processes
- 5) To strengthen the mutual impact between curricula and scientific work:
- To develop top-quality syllabi in the areas of national interests and stress their interdisciplinary character
 - To take part in strategic research at the state level
 - To conduct research connected to the needs of our country and its economy and strengthen their interdisciplinary and applicable character
 - To seek the external financial resources in order to conduct research and in that way encourage the teachers to work
 - To encourage the participation of students, especially post-graduate students, in research in order to improve the quality of their education
 - To establish the University as the most significant research institution in this country
- 6) To intensify the collaboration with the environment (state, society):
- To provide the support to the University status by the state and society through clear mission and aims
 - To create milieu that will encourage offering services for the state and economy
 - To have more active role of student services
- 7) To build a modern university campus:
- To make a masters plan and create priorities
 - To maintain the acceptable financing and upgrade the standard of teaching and administrative staff
 - To provide apartments, loans or lots for individual building of houses
 - To improve the standard of students
 - To intensify the development of the University information network and to apply information technologies at the University
- 8) To provide new financial resources:
- To provide maximal funding from budget
 - To provide certain resources through research and offering services

- To provide certain financial means from tuition fees
 - To create new financial resources
- 9) To improve management:
- To respect high standards in the selection of staff, to introduce the institution of trial work and promotion of the best
 - To provide the adequate training of staff and respect its results
 - To award the best workers
 - To manage human, financial and physical resources effectively and efficiently
 - To adapt the University services to the needs of students, state and economy.

Once the new legislation has been hopefully passed our universities will easily implement several important segments of the Bologna Declaration. For instance, when it comes to the structure of degrees and their duration the already existing concepts of Bachelor's and Master's studies should be only slightly modified. First two years, especially at technical faculties, would be more generally-oriented, and the duration of whole program limited to four years. According to the recommendations of the HECB three years are not sufficient for the majority of profiles, due to the fact that our secondary education does not prepare future students adequately. The duration of studies at the departments such as dentistry or medicine cannot be shortened to more than 6 years, bearing in mind their special needs.

The only real change we have to impose here is the introduction of Doctoral courses. So far we did not organize any exams, but our PhD candidates only worked on their theses with a help of their mentor and defended them in front of a commission, after fulfilling certain academic criteria such as the numbers of books or other scientific works previously published.

Talking about credit system, accumulation and transfer of study credits, quality assurance and accreditation as well as the promotion of mobility here we have to mention that within the frameworks of the second World Bank project to be implemented at the University of Banja Luka until June 2004 we plan to:

1. Introduce quality assurance system to at least five pilot faculties
2. Analyze students' workload at all the faculties of the University of Banja Luka and give proposals for the assessment of all the subjects and study groups in the spirit of the Bologna declaration, so we could create preconditions for students' mobility and curriculum development according to the Bologna Declaration.
3. Introduce new curricula and syllabi to at least five faculties according to the principles of the Bologna Declaration and the proposal of the Strategy of Education in RS/BiH.

The project will be realized through three subprojects given above and each project will have its team to manage it. The teams will be consisted of the representatives of various faculties of the University of Banja Luka, other Bosnian universities, European universities and some universities from Eastern Europe.

The aim of the project is to introduce a quality assurance system in management and teaching to at least five faculties, to create curricula and syllabi in the spirit of the Bologna Declaration and to prepare the faculties and study groups of the University of Banja Luka for independent evaluation by an official body from the European Union (such as EUA).

In the realization of the second subproject the students of the University of Banja Luka will take part in acquiring the information and development of a valid database, which will represent a starting point for measuring students' workload. The teams who will undertake the research and analyze the results in the pilot phase of the project will be formed at least at the first year study groups of five faculties at the University of Banja Luka.

The usefulness of this project will not only reflect in the information that will be acquired and the experience our students and teachers will get in the contest of their self-evaluation. It will also improve the interaction between teachers and their students, create good preconditions for the introduction of ECTS, help us to enroll larger number of students at our university and enable young people to stay in their country.

The local area network created during this project will be used to link the university with the other Bosnian universities in order to exchange the information.

We have already made several initial steps to the introduction of joint degrees working together with the Swedish Universities of Stocholm and Geteborg at the undergraduate courses given at the department of Social Work or with the London School of Economics from the UK and the University of Bologna from Italy at the postgraduate courses on Management and Reconstruction in Economics.

But, all in all our present profiles are unfortunately not always very modern. Although they contain some good elements, such as optional or interdisciplinary subjects, the number of face-to-face teaching hours is still enormously high. The specific examples given below from the fields of physics and history will give you a clear idea in that respect.

1.1) Curriculum of the study profile for graduated physicists

First year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Mechanics and thermodynamics	4	2	3	3	2	3
Mathematics one	4	4	-	4	4	-
Informatics	2	2	-	2	2	-
English language One	3	-	-	3	-	-
Political economics	2	-	-	2	-	-
Processing of measurement results	-	-	-	3	2	1
Chemistry	22	2	1			

Second year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Electromagnetism and optics	4	2	3	3	2	3
Basic atomic physics	4	4	-	2	2	-
Methods of measurements and standardization	2	-	2	2	-	2

English language two	3	-	-	3	-	-
Bases of theoretical physics one	-	-	-	2	2	-
Mathematics two	4	4		4	4	
Basic mathematical physics	2	2				

Third year subjects	Winter	semester		Summer	Semester	
	Lectures	Exercises		Lectures	Exercises	
Quantum mechanics	4	3	-	2	2	-
Electric dynamics	2	2	-	2	2	-
Electronics	2	1	2	2	1	2
Physics of materials	2	2		2	2	
Advanced physical practical course			3		3	
Computers in teaching of physics				2	2	
Practical course in experimental teaching of physics				2	2	
Pedagogy with psychology	2	2		2	2	
Basic ecology	2	2		2	2	
Diploma work			6			

Fourth year subjects	Winter	semester		Summer	Semester	
	Lectures	Exercises		Lectures	Exercises	
Astrophysics and theory of gravitational fields	2	2	-	-	-	-
Physics teaching methodology	3	-	-	3	-	-
History and philosophy of physics	-	-	-	3	-	-
Nuclear physics	2	1	2	-	-	-
Physics of elemental particles						
Statistical physics	2	2	-	2	2	-
Physics of conditional states of substances	3	2	-	3	2	-

1.2) Curriculum of the study profile for the professor of physics

First year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Physics 1	4	2	3	3	2	3
Mathematics	4	4	-	4	4	-
Computers in physics 1	2	4	-	2	1	-
English language 1	3	-	-	3	-	-
Political economics	2	-	-	2	-	-
Processing of measurement results	-	-	-	3	2	1

Second year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Physics 2	4	2	3	3	2	3

Mathematical physics	4	4	-	2	2	-
Computers in physics 2	2	2	-	2	2	-
Methods of measurements and standardization	2	-	2	2	-	2
English language 2	3	-	-	3	-	-
Bases of theoretical physics	-	-	-	2	2	-

Third year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Quantum mechanics	4	3	-	2	2	-
Electric dynamics	2	2	-	2	2	-
Nuclear physics	2	1	1	2	1	1
Practical course in experimental teaching of physics	-	-	4	-	-	4
Pedagogy with psychology	4	-	-	4	-	-
Basic statistical physics	2	2	-	2	2	-

Fourth year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Nuclear physics	2	1	2	-	-	-
Astrophysics and theory of gravitational fields	2	2	-	-	-	-
Physics teaching methodology	3	-	-	3	-	-
History of physics	3	-	-	-	-	-
Optional subject	-	-	2	2	-	2
Physics of elemental particles	-	-	-	2	2	-

1.3) Curriculum of the study profile for the professor of physics and informatics

First year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Physics 1	4	2	3	3	2	3
Mathematics 1	4	4		4	4	
Bases of Informatics	3	6		3	3	1
Processing of measurement results				3	2	
English language	1	22		1	2	

Second year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Physics 2	4	2	3	3	2	3
Mathematics 2	4	4		4	4	
Basic atomic physics	2	1		2	2	
Computer systems 1	3	4		3	4	

English language 2	1	2		1	2	
Bases of theoretical physics				2	2	

Third year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Basic quantum mechanics	4	3				
Physics of materials	2	2		2	2	
Computer systems 2	3	8		3	8	
Pedagogy with psychology	2	2		2	2	
Electrical engineering	2	1		2	1	2
History and philosophy of physics				3		
Practical course in experimental teaching of physics					4	
Computers in teaching of physics				2	2	
Introduction to numerical mathematics	3	3				

Fourth year subjects	Winter	semester		Summer	semester	
	Lectures	Exercises		Lectures	Exercises	
Nuclear physics	2	1	2		1	
Physics teaching methodology	2	1		2	2	3
Optional subject	2	2		2	10	
Relational databases	3			3	2	
Physics of elemental particles		9		2		
A choice of subjects: History of Serbian culture or Political economics	2x			2x		
Diploma work		9				

* * *

Study group: History
Profile: Professor of history

Subject		Semester															
		I		II		III		IV		V		VI		VII		VIII	
		l	e	l	e	l	E	l	e	l	e	l	e	l	e	l	e
1	Introduction to historical studies	2	2	2	#												
2	Historical geography	2	0	2	#												
3	Auxiliary historical sciences					2	0	2	#								
4	Latin language*	4	0	4	#												

					0												
5	General history of ancient times	4	0	4	0	4	0	4	# # 0								
6	General history of the Middle Ages	4	0	4	0	4	0	4	# # 0								
7	History of Byzantium	3	0	3	0	3	0	3	# # 0								
8	Serbian and South Slavic history of the Middle Ages					4	0	4	0	4	0	4	# # 2				
9	Serbian and Balkan history (XV-XVIII century)					4	0	4	0	4	0	4	# # 0				
10	General history of modern times									4	0	4	0	4	0	4	# # 0
11	General contemporary history									3	2	3	0	4	2	4	# # 2
12	Serbian and South Slavic history of modern times									4	2	4	2	4	2	4	# # 2
13	History of Yugoslavia									2	0	2	0	4	1	4	# # 1
14	Sociology	2	0	2	# 0												
15	Psychology					2	# 0										
16	Pedagogy							2	# 0								
17	History teaching methodology													2	2	2	# # 2
18	Foreign language	1	2	1	2	1	2	1	# # 2								
19	Physical education (1)	0	2	0	2												
	TOTAL	2 2	4	2 2	4	2 4	2	2 4	2	2 1	4	2 1	4	1 8	7	1 8	7
(1) Physical education classes are not included in the total number of hours																	
* Latin/Greek/Turkish/Old Slavonic																	

Special obligations of students:

- A month of practical work before the end of the fourth year;
- Two term papers from vocational subjects (one from General history, and one from Serbian and South Slavic history with the history of Byzantium)
- Diploma work.

Study group: History and Latin

Profile: Professor of history and Latin

Subject		Semester															
		I		II		III		IV		V		VI		VII		VIII	
		l	e	l	e	l	e	l	e	l	e	l	e	l	e	l	e
1	Introduction to historical studies	2	2	2	# 2												
2	Historical geography	2	0	2	# 0												
3	Auxiliary historical sciences					2	0	2	# 0								
4	Latin language	4	0	4	0	4	0	4	# # 0	4	2	4	2	4	2	4	2
5	General history of ancient times	4	0	4	0	4	0	4	# # 0								
6	General history of the Middle Ages	4	0	4	0	4	0	4	# # 0								
7	History of Byzantium	3	0	3	0	3	0	3	# # 0								
8	Serbian and South Slavic history of the Middle Ages					4	0	4	0	4	0	4	# # 0				
9	Serbian and Balkan history (XV-XVIII century)					4	0	4	0	4	0	4	# # 2				
10	General history of modern times									4	0	4	0	4	0	4	# # 0
11	General contemporary history									3	0	3	0	4	0	4	# # 0
12	Serbian and South Slavic history of modern times									4	0	4	0	4	2	4	# # 2
1	History of																#

3	Yugoslavia									2	0	2	0	4	1	4	# 1
1 4	Sociology	2	0	2	# 0												
1 5	Psychology					2	# 0										
1 6	Pedagogy							2	# 0								
1 7	History teaching methodology													2	2	2	# # 2
1 8	Foreign language	1	2	1	2	1	2	1	# # 2								
1 9	Physical education (1)	0	2	0	2												
	T O T A L	2 2	4	2 2	4	2 8	2	2 8	2	2 5	2	2 5	4	2 2	7	2 2	7
(1) Physical education classes are not included in the total number of hours																	

Special obligations of students:

- A month of practical work before the end of the fourth year;
- Two term papers from vocational subjects (General history, Serbian and South Slavic history with the History of Byzantium, Latin);
- Diploma work.

It is necessary here to mention our goals from the field of lifelong education as well. It is extremely important for our university to become a leading provider of such courses, and not to leave it to the institutions that do not have anything to do with educational services. In order to have insight into this subject matter here is a short description of our Lifelong education center which will be founded within the frameworks of the third World Bank project, whose implementation deadline is February 2004. Our aim is to start with the areas where we already provide several short or intensive courses for adults, and than to gradually move to other fields.

LIFE-LONG EDUCATION CENTER

- INTRODUCTION

- The economy of Bosnia and Herzegovina (Republika Srpska and the Federation of Bosnia and Herzegovina) is in the phase of transformation from the economy where the owner of capital was a state into the economy where the owners are private individuals and companies. It means that the production must be transformed from planned into free market economy.
- The state of production capacities in our industry (facilities and equipment) is not satisfactory. After the privatization a number of factories will change their production orientation and will purchase new equipment.
- There is a certain interest and a wish for the export of goods in the industry of Bosnia and Herzegovina, but there is still a process of acquiring quality standards (ISO standards, HACCP, TQM...) in front of us.
- In these circumstances the employees from our industry and institutions have to refresh and upgrade their knowledge. Fast changes in mechanics and

technology demand from us permanent education. Permanent education is the only guarantee for the employment in the future.

- In food production there are some additional requirements concerning food safety. It requires additional and permanent training of all the employees from this field.
- In order to help Bosnian economy our University suggests establishing a life-long education center. The center is seen as a unit for training executive, technical managers and other employees from factories, institutions and state bodies (ministries, inspections, etc.) and issuing certificates. It will be located at the University of Banja Luka.

- **MISSION**

- The Center should be the most important institution for the education and consulting in BiH from the field of executive and technical management in industry. The services offered by the Center will be according international standards.
- The center will educate personnel at regional and international level. This will be achieved throughout the cooperation with the other centers and similar institutions.
- The Center will become a member of corresponding international bodies.

- **AIMS**

- In-service training: The offer of educational programs from the field of management and production through a series of courses for employees. The courses will be based on reinforcing the participants' skills and grouped into two major categories: professional courses (such as: Management, TQM, ISO and HACCP) and general ones (such as: Business English and Internet).
- Certificates of achievement: The certificate will be a proof that the participants acquired the knowledge and skills important for their work. It will become a recognized professional qualification, so the participants will gain certain benefits after the course.
- Consultations: The center will offer consultations on the issues of planning policy and management in the field of production. These services will be available for the clients from public and private sector, at local, regional and international level.

All of the above-mentioned activities are actually a thorough preparation for the accreditation of the University of Banja Luka. HECB is leading numerous discussions this year in order to establish an accreditation agency at the state level. According to the HECB members, it should include foreign experts as well, and domestic people should not be already involved in any segments of Bosnian higher education in order to avoid the conflict of interests. Their suggestion for the agency is to be organized as a non-governmental organization rather than an institution that works under the patronage of ministries.

In that respect the University of Banja Luka has already gathered significant experience in quality assurance. Beside UNESCO-CEPES workshops and study visits we have participated in the following events:

- CRE Seminar 'Capacity Building and Human Resource Development Measures for Higher Education in Bosnia nad Herzegovina' (Banja Luka/November 1999) where our two pilot faculties, Medicine and Mechanical Engineering prepared their SWOT analyses;

- EC-TAER Workshop on Quality Management (Vogosca/July 2001) together with all Bosnian universities, and
- WB Project Session entitled 'Quality Sistem and Evaluation at the University of Banja Luka' (Banja Luka/January 2002).

Beside that, different kinds of internal evaluations were introduced to several faculties, such as Medicine or Philosophy. In order to show a clear picture of the present situation at one of our pilot faculties here is the SWOT matrix from the analysis prepared by the Faculty of Mechanical Engineering.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • maintained grade criteria and level of acquired knowledge of students • convenient terms and conditions concerning accreditation-recognition of our diplomas in the world • wide range of knowledge being acquired by students • available skilled human resources • convenient location of the Faculty • the Faculty thirty-year tradition • affirmation of fundamental disciplines in study • good activities in the field of rendering expert services to the industry 	<ul style="list-style-type: none"> • laboratories are not enough equipped, and low level at experimental work • unsatisfactory choice of contemporary branches • out of date and noncompetitive curricula and programs • lousy cooperation among the departments and individuals • unsatisfactory involvement of the faculty in the governmental and state programs • unsatisfactory the management activity in presentation and popularization of study • inappropriate organizational and management structure • low qualification level of supportive services • lack of automatic data processing in the Faculty supportive services • weak organization of the Departments • learning of foreign languages is not present in adequate extent • non efficient disposal of available space • lack of systematic care concerning training and tutorial work with young staff • duration of study is too long • unsatisfactory affirmation of the Faculty global interests
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • expecting demands for this profile of staff in nearest future • large secondary school resources within our region • migration trends towards our region • good opportunities regarding collaboration with economy • existing developed technical-technology resources in mechanical industry • convenient geographical position • good opportunities concerning cooperation with the Faculty alumni 	<ul style="list-style-type: none"> • inappropriate state development strategy of education and higher education • foundation of higher number of faculties and higher schools without taking into consideration the needs and demands of society, and with low standards regarding work and learning (unfair competition) • the University has too much competencies (financing) considering the services rendered and lousy organizational structure • inconvenient situation in economy • low interest shown for study in the field of mechanical engineering • lack of public financial programs for support of scientific-research activities and laboratory equipment • lack of comprehensive development programs in the

	country <ul style="list-style-type: none"> • low entrance quality coefficient from secondary schooling
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When we come to the concepts of mobility and diploma supplement we would like to stress that significant breakthroughs in that respect were made within the frameworks of dozens of TEMPUS programs financed by the European Commission since 1996. So, in 1996 Bosnian universities participated in 6 Joint European Projects, followed by 4 in 1997, 7 in 1998, 8 in 1999, 10 in 2000 and finally 13 in 2001. Several new applications were prepared for the following round and the submission deadline was December 15th. Apart from that our professors and assistants also benefited from numerous Tempus Individual Mobility Grants: 10 in 1997, 5 in 1998, even 45 people in 1999 and 5 more in 2000.

In addition to that it is worth saying that the mobility inside Bosnia and Herzegovina is reasonably well managed despite its complicated territorial organization. It is relatively easy for our students to change their study group or faculty. Theoretically, there are no obstacles if a student from e.g. the Federation of Bosnia and Herzegovina wants to continue its education in Republika Srpska. A number of post-graduate students from Bihac already study at the University of Banja Luka and several professors teach at the faculties in both entities.

2. Envisaged Developments

The calendar for the introduction of specific above-mentioned changes is provided below.

Strategic Goals of the University of Banja Luka (Short-term and Long-term)

	2003	2004	2005-2010
Goals for curriculum	<ul style="list-style-type: none"> • To become the center of interest for students • To measure the existing workload of students and start the preparation for the introduction of ECTS 	<ul style="list-style-type: none"> • To develop curricula at the European level according to the Bologna Declaration • To strengthen the interrelation of curricula and scientific work 	<ul style="list-style-type: none"> • To stay the best educational center in Republika Srpska and become the best university in Bosnia and Herzegovina
Goals for buildings	<ul style="list-style-type: none"> • To repair the most endangered objects at the University (roofs, toilets, infrastructure, internet, libraries, access to databases) 	<ul style="list-style-type: none"> • To enlarge the capacities in accordance with the possibilities 	<ul style="list-style-type: none"> • To build a modern university campus
Goals for teaching staff	<ul style="list-style-type: none"> • To employ, motivate and award the best staff 	<ul style="list-style-type: none"> • To harmonize education with new work tasks • To start with the reorganization 	<ul style="list-style-type: none"> • To increase efficiency and introduce a quality assurance system • To have quality and

		according to the new Law on Higher Education	skillful personnel
Goals for financing	<ul style="list-style-type: none"> To provide new sources of financing 	<ul style="list-style-type: none"> To intensify the collaboration with environment (state, society) To provide new sources of financing 	<ul style="list-style-type: none"> To increase independence and financial autonomy (at least to 30%) To increase the share of the profits achieved through scientific research To reduce the dependence on the RS budget To use the available resources in a more efficient way
Goals for management	<ul style="list-style-type: none"> To educate the existing managers and advance their work 	<ul style="list-style-type: none"> To reorganize the University according to the new Law on Higher Education 	<ul style="list-style-type: none"> To become corporate university according to the models of European universities

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Plan of the Implementation of Strategic Goals

Goal	Activity	Deadline (year)
<ul style="list-style-type: none"> To become the center of interest for students To measure the existing workload of students and start the preparation for the introduction of ECTS 	<ul style="list-style-type: none"> To develop the enrollment plan in order to recruit the best students and keep them preferring the quality to quantity To strengthen the sense of patriotism of our students as well as the sense of loyalty to the University and society To disseminate information on curricula and syllabi, as well as non-teaching activities To help students reach the highest academic standards To encourage the candidates to choose the profiles that will enable them to find a job To develop students' counseling office To improve the quality of the enrolment system To strengthen the collaboration between 	2003

	<p>the students, teachers and non-academic staff</p> <ul style="list-style-type: none"> ▪ To develop a program for the identification of students with poor results and give them academic help ▪ To provide scholarships ▪ To retain high standards in teaching ▪ To enhance students participation in decision making 	
<ul style="list-style-type: none"> • To repair the most endangered objects at the University (roofs, toilets, infrastructure, internet, libraries, access to databases) 	<ul style="list-style-type: none"> ▪ To produce a master's plan and work out the priorities 	2003
<ul style="list-style-type: none"> • To employ, motivate and award the best staff 	<ul style="list-style-type: none"> ▪ To keep the best teachers at the University and reward them 	2003
<ul style="list-style-type: none"> • To provide new sources of financing 	<ul style="list-style-type: none"> ▪ To provide the maximal amount of financial resources from budget 	2003
<ul style="list-style-type: none"> • To educate the existing managers and advance their work 	<ul style="list-style-type: none"> ▪ To provide appropriate training and respect its results 	2003
<ul style="list-style-type: none"> • To develop curricula at the European level according to the Bologna Declaration • To strengthen the interrelation of curricula and scientific work 	<ul style="list-style-type: none"> ▪ To offer clear programs for various disciplines and adapt them according to 21st century needs ▪ To strengthen the selection through the development of programs suitable for the country's needs with distinguished quality ▪ To satisfy international criteria in preparing curricula and syllabi ▪ To improve syllabi by introducing new teaching methods ▪ To introduce new concepts in teaching and learning such as Life-Long Education and Distance Learning ▪ To improve academic quality by introducing new information technologies in the process of learning ▪ To provide a sufficient number of teachers ▪ To develop institutional mechanisms for occasional critical analysis of all educational programs ▪ To introduce multidisciplinary studies at undergraduate level ▪ To provide the access to relevant databases ▪ To strengthen international study programs including learning abroad 	2004

	<ul style="list-style-type: none"> ▪ To develop a quality syllabus from the fields of national interest and stress their multidisciplinary character ▪ To participate in strategic research at the state level ▪ To undertake research on behalf of the state and its economy and influence the strengthening of their multidisciplinary approach and applicability ▪ To search for external sources of funding for the sake of research in order to provide incentives for teachers ▪ To include especially postgraduate students in research in order to increase the quality of their education ▪ To establish the place for the University as the most significant research institution in the country 	
<ul style="list-style-type: none"> • To increase the capacities in accordance with the possibilities 	<ul style="list-style-type: none"> ▪ To improve the standard of students ▪ To accelerate the development of the University informational network and improve the use of informational technologies at the University 	2004
<ul style="list-style-type: none"> • To harmonize education with new work tasks • To start with the reorganization according to the new Law on Higher Education 	<ul style="list-style-type: none"> ▪ To provide appropriate training for the staff and respect its results ▪ To reward the best staff 	2004
<ul style="list-style-type: none"> • To intensify the collaboration with environment (state, society) • To provide new sources of financing 	<ul style="list-style-type: none"> ▪ To provide certain funds from the student fees ▪ To create new financial resources 	2004
<ul style="list-style-type: none"> • To reorganize the University according to the new Law on Higher Education 	<ul style="list-style-type: none"> ▪ Effective and efficient management of human, financial and other resources 	2004
<ul style="list-style-type: none"> • To stay the best educational center in Republika Srpska and become the best university in Bosnia and Herzegovina 	<ul style="list-style-type: none"> ▪ To understand and develop the inheritance and national culture ▪ To become a center of academic excellence ▪ To contribute effectively to the development of the state and its economy ▪ To lead toward positive changes in the society 	2005-2010

<ul style="list-style-type: none"> • To build a modern university campus 	<ul style="list-style-type: none"> ▪ To maintain the acceptable financing and achieve the higher standard of teaching and administrative staff ▪ To provide apartments, loans or building sites for individual building of apartments ▪ To increase the standard of students 	2005-2010
<ul style="list-style-type: none"> • To increase efficiency and introduce a quality assurance system • To have quality and skilful personnel 	<ul style="list-style-type: none"> ▪ To undertake self-evaluation ▪ To apply for external evaluation (EUA) ▪ To achieve accreditation at all levels 	2005-2010
<ul style="list-style-type: none"> • To increase independence and financial autonomy (at least to 30%) • To increase the share of the profits achieved through scientific research • To reduce the dependence on the RS budget • To use the available resources in a more efficient way 	<ul style="list-style-type: none"> ▪ To provide certain funding through research and services ▪ To provide certain funding through student fees ▪ To create new financial resources 	2005-2010
<ul style="list-style-type: none"> • To become corporate university according to the models of European universities 	<ul style="list-style-type: none"> ▪ To centralize decision making at the University ▪ To make faculties integrated parts of the University not the members with special legal status ▪ To strengthen departments and chairs at the University 	2005-2010

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Although it is still a proposal prepared for a public debate *The Development Strategy of Bosnia and Herzegovina*¹ in its second annex entitled *Sector Priorities: Education* also deals with envisaged development in a similar way The Institutional Development Plan of the University of Banja Luka for the period 2002-2010 does. That is partially due to the fact that several professors from our institution took part in its preparation, but it also brings us to the conclusion that the priorities in this sector are similar or even the same for the whole country. Some of the most relevant parts of the paper will be given here:

The Aims of the Reform and Action Plan: Higher Education Curricula and Syllabi

- To strengthen the education in business and public administration and introduce MBA as a postgraduate program;

¹ RAZVOJNA STRATEGIJA BiH – PRSP, Anex II: Sektorski prioriteti – obrazovanje, (prijedlog za javnu raspravu), PRSP TIM, oktobar 2002.

- To increase the volume of practical teaching and decrease the scope of theoretical instructions at undergraduate and postgraduate level and modernize doctoral studies;
- To increase the number of optional subjects at undergraduate level;
- To intensify teaching by using and by increasing the access to informational and communication means and technologies for all the students.

Reform of the System

- To shape the processes of reforms as norms in the form of a new and modern law, which takes into account the European standards of contemporary higher education, modernize curricula and syllabi in the spirit of the Bologna Declaration, provide compatibility with international educational systems, introduce ECTS, accreditation and the system of easily understandable and comparable degrees, strengthen the concepts of intra-university and inter-university mobility and develop publishing;
- To decentralize our educational system which means the real university autonomy;
- To strengthen the importance, responsibility and central role of the university as an integrated institution with the flexibility in determining and directing its budget and enrollment of students;
- To abolish faculties as juristic persons and strengthen the position of Rector;
- To discontinue with the direct financing of faculties and create the institutional coordination of finances throughout universities.

Social/Financial Measures

- To provide the collaboration between the higher education and economy;
- To provide new funding mechanisms;
- To bring down to a normal level the existing huge number of universities and enormous expansion of faculties in after-war period;
- To avoid binding higher educational institutions to geographical or administrative borders inside Bosnia and Herzegovina, but to connect them to the real needs of regions for certain profiles of experts.

Life-long Education and Distance Learning

The analysis of the labor market in BiH brought us to the conclusion that there is a need for a limited number of profiles educated throughout our current educational system (including higher education). Therefore we feel a need to act instantly in that respect. The only adequate response to a problem like this is to pass a corresponding legislation, which would enable the stimulation of the establishment of extracurricular or additional adult education for their retraining in different industries with a higher employment potential. That should ensure the adoption of new regulations that will make the foundation of corresponding educational institutions easier and control the quality of their work. This would create a healthy competition between domestic and foreign educational institutions.

The whole generations that finished their education, including faculties, have difficulties in the recognition and implementation of fresh knowledge from the countries with open economies. Moreover, the majority of people currently in power, either politicians or bureaucrats, were educated in former Yugoslavia, so only a small number of them had a

contact with the examples of good global practice or modern management, as well as the techniques for the creation of budget. In the world context of rapid globalization, where new technologies and ideas request from professional personnel to use the advantages of life-long learning and the permanent training of their knowledge and skills, Bosnian bureaucrats and decision makers from public and private sector should be exposed to new knowledge and fresh experiences. From the short-term planning point of view and bearing in mind our existing mentality represents a possible obstruction to reforms, the universal all-inclusive education is needed urgently.

Bosnia and Herzegovina needs the equalized quality in all professions according to the world standards. In connection to that it will be extremely important to stimulate distance learning via the Internet. The initiatives from this field already undertaken at the Faculty of Economics in Sarajevo in collaboration with the World Bank or at the Faculty of Electrical Engineering in Banja Luka with a help from World University Service Austria should be supported as the most efficient way of acting quickly in order to further educate our workers for the world standard professions according to the needs of the labor market in BiH in both private and public sector.

III. Conclusion

We can conclude that the dream of each university from the region is to join the European family of universities. All of our activities described in this paper are aimed to lead us to that goal.

The main difficulty lies in the resistance to change, firmly rooted in the mentality of our people. Therefore, we should constantly work on their education by sending the largest possible number of our teachers to participate in seminars abroad and take part in various international projects.

Another difficulty in the implementation of the Bologna Process is its extremely high cost. All the segments in our society (industry, politics and culture) make an impact to education and vice-versa. The development of knowledge depends on industrial development and the economic power of our population. Unfortunately, no one of these two is in the situation to invest in higher education and science in Republika Srpska.

But in spite of all the obstacles mentioned above at the end of this study we feel a need to stress again that the University of Banja Luka, and hopefully all other universities in Republika Srpska and Bosnia and Herzegovina are determined to continue in this direction and to implement all the changes envisaged here. We do hope that in that respect we will continue to receive the inevitable support from both responsible ministries as well as the whole international community.