

# HIGHER EDUCATION IN SERBIA



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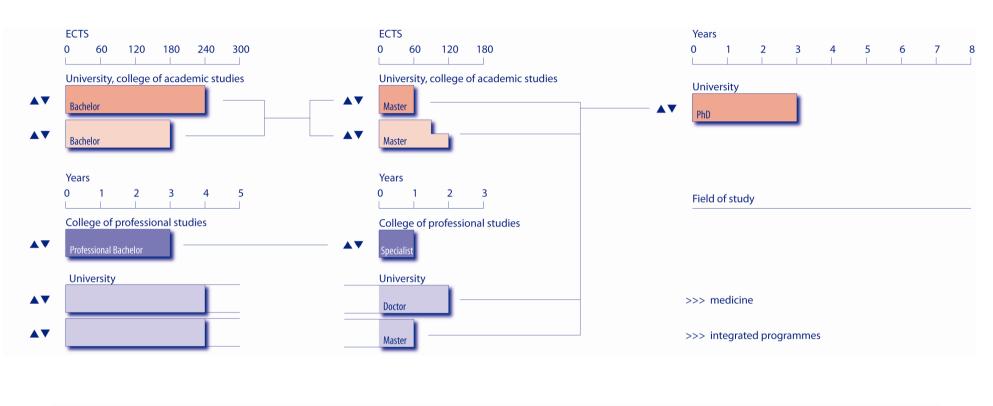
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# The higher education system in Serbia





Source: "Focus on Higher Education in Europe 2010 - The impact of the Bologna Process" (Eurydice, 2010).

# I. Overall description

# 1. Major characteristics of tertiary education in the country

# Legislation covering the field of tertiary education

The Law on Higher Education (LHE, 2005 and amendments in 2008 and 2010) provides a legal basis for full implementation of the Bologna Declaration and the Lisbon Convention. The Lisbon Convention was also ratified in the National Assembly.

# Types of tertiary education programmes and qualifications

The three-cycle structure prescribed by the LHE has been instituted in all university higher education institutions. The three-cycle structure based on the Bologna principles was formally put implemented beginning in the academic year 2006/2007. The percentage of the total number of all students below Doctorate level enrolled in two-cycle degree systems in the academic year 2008/2009 was cycle The second of academic qualifications gives direct access to the third cycle. Third-cycle programmes (PhD) started in 2006/2007 in many university institutions.

In order to gain entry to the Doctorate level programmes, students must have accumulated at least 300 ECTS credits for most study programmes and at least 360 credits for medical sciences. Within the Doctorate programmes, students must earn a minimum of 180 credits to obtain the degree. Doctorate programmes include obligatory course work and individual research. The doctoral dissertation is the final part of the study programme at Doctorate level, except doctors of arts, who follow an artistic programme. Completed scientific contributions are graded the number of scientific according to publications, patents or technical innovations.

In international communications and in the diploma issued in the English language, the titles acquired after the different cycles are translated as Bachelor, Bachelor with honours (240 ECTS), Bachelor appl., Master and Ph.D.

A higher education institution may, within the scope of its activities, implement programmes of lifelong learning outside the framework of study programmes for which it has obtained a work permit. A person admitted to this type of programme does not have the status of student.

A person who has mastered a programme within the lifelong learning framework is issued

a certificate.

# Types of tertiary education institutions

There are three types of higher education institutions in Serbia – universities (univerzitet), colleges of applied sciences (visoka škola strukovnih studija) and colleges of academic studies (visoka škola). Faculties usually have the status of a legal body– but, they cannot exist independently i.e. they need to be a constituent part of a university.

The law also allows colleges of applied sciences to come together and form universities of applied sciences, but until now such institutions practically do not exist.

Universities which are also the only teaching and research higher education institutions in the country provide all three cycles of higher education as well as some forms of lifelong learning.

Colleges of applied sciences, of which 69 have been accredited since October 2009, provide a first and some sort of second cycle of higher education. This second cycle is limited to 60 credits of applied specialisation which is not the same as a Master of applied sciences. Currently, there is an ongoing discussion related to this issue and the conclusions will be included in the text of a new Law on Higher Education.

There are approximately 200 000 students in higher education.

# 2. Distribution of responsibilities

At the central level, the main responsibilities lie with Ministry of Education and National Council for Higher Education which came into existence in 2005 and whose members are elected by the National Assembly.

The Ministry of Education is the governmental authority in charge of higher education. It recommends policy to the Government, plans the admission policy for students, allocates the financial resources to higher education institutions, and oversees the overall development of higher education and ensures the execution of decisions of importance.

The National Council of Higher Education, (NCHE) has overall responsibility for strategic planning and decisions about main issues relevant for the coherence of the HE system such as setting standards for the internal assessment and quality evaluation of HE institutions and establishing standards for the

issuance of work permits. The Council is an independent body, consisting mainly of academicians proposed by the Conference of Serbian Universities (CSU) and appointed by decision of the National Assembly.

Governance of higher education system in Serbia is not totally centralised. The autonomous province Vojvodina has significant jurisdiction over the higher education institutions located on its territory:

- Founding of higher education institutions in Vojvodina;
- Issuing work permits to higher education institutions located in Vojvodina;
- Carrying out administrative supervision of the higher education institutions located in Vojvodina;
- Allocating the financial resources provided through the budget of the province allocated for higher education institutions and monitoring their use;
- Defining the number of students that can be enrolled into the first year of study, in accordance with the proposals of the National Council for Higher Education;
- Nominating the members of councils of state founded colleges of applied sciences and of state founded universities located in Vojvodina.

Two conferences also participate in the governing of higher education. These are Conference of Universities and Student Conference.

# 3. Governing bodies of the Higher Education Institutions

Universities have a dual governance structure comprising a Council and Senate. The Council is the administrative body of a higher education institution. The council is responsible for long-term strategic decisions, such as deciding on statutes, strategic plans, selection of the rector and vice-rectors, and budget allocation. The Council of the state founded higher education institution comprises the representatives of the institution, students and the Government. Up to two thirds of the total number of Council members are the representatives of the higher education institution and one third of the total number of students and Council members are representatives of the founder.

Management staff from enterprises and officials from other organisations are very frequently representatives of the founders.

The Senate is the professional body of a university, and the professional body of a

faculty and/or an academy of arts. The senate is responsible for academic issues, such as the curriculum, degrees and staff promotions. The Senate consists of internal members - professors (deans of faculties at a university, or academic staff at a faculty) and students. Twenty per cent of the members of Senate (at a university or faculty) are student representatives.

The executive officer of a university is the Rector; of a faculty, the Dean; of an academy or college of applied sciences, the Head. The executive officer is elected from among the teachers of a higher education institution who are employed full time and who have been elected for an indefinite period of time. The executive officer is elected for a period of three years with a possibility of being re-elected for another period of three years.

#### 4. Financing

Higher education institutions may acquire funds from various sources. These are mainly: the founder, students - tuition fees; donations, gifts and endowments; projects and contracts related to the carrying out of courses of study, research and consulting services;

A higher education institution manages these funds independently.

State-founded and privately-founded universities are in a different position in relation to funding.

Generally speaking, a higher education institution founded by the state will receive funds for the implementation of approved and/or accredited study programmes on the basis of a contract concluded between the independent higher education institution and the Government. In practice, the funds are transferred directly from the state budget to the faculties.

The funds that a higher education institution and/or a higher education unit acquires, other than the funds provided by the Republic, make up that institution's own income. These funds include tuition fees, provision of services to third persons, gifts, donations, sponsorships and other sources of fund acquisition.

These funds are disposed of by a higher education institution and/or higher education unit with the capacity of a legal entity in accordance with the law and the general act of that higher education institution and/or higher education unit.

# 5. Students' contributions and financial support

There are two categories of students with respect to funding: state-funded students who

study at state-founded higher education institutions and self-funded students who exist in all types of higher education institutions.

All self-funded students at a particular higher education institution pay the same fee, regardless of age. Tuition fees are determined by the higher education institutions.

The criteria for determining fee levels are established by the general act of a higher education institution.

Prior to announcing a competition for admission of new students, a higher education institution establishes the amounts of tuition fees for all study programmes in the following academic year.

The tuition fee determines the costs of studies for one academic year, i.e. for acquiring 60 ECTS credits.

The tuition fee includes compensations for regular services that a higher education institution provides to a student within the framework of the relevant study programme. Students who study at state-founded higher education institutions can apply to use student halls of residence – they can live there under very beneficial conditions. Student restaurants can be also used under the same conditions.

There are also other benefits that all students can use.

# 6. Licensing, quality assurance and accreditation of institutions and/or programmes

Serbia operates an integrated national quality assurance system complying with the Standards and Guidelines for Quality Assurance (QA) in the European Higher Education Area

The Commission for Accreditation and Quality Assessment (CAQA) is legally responsible for monitoring organising and the assurance scheme for all higher education institutions in Serbia. The CAOA was formed in June 2006 as an independent expert body of the NCHE (the National Council for Higher Education). The CAQA designs standards, protocols and guidelines for the NCHE's approval and publication and helps institutions respective creating their quality management systems. The CAQA carries out quality assurance processes in forms of accreditation and external quality assurance of all higher educational institutions and study programmes in accordance with the LHE. During the development of the QA system, the European Standards and Guidelines (ESG) were utilised as the main source information. Existing accreditation standards, which do include QA topics, therefore fully comply with the ESG.

The CAQA has a policy for the assurance of its own quality. The Commission is subject to national and international peer reviews; internal quality assurance procedures for the Commission are publicly available on the website along with the mission statement, and management and action plans. The CAQA regularly conducts (once a year) internal evaluation and continuously produces reports on its work and achievements to the NCHE. The CAQA has the associate membership in the European Association for Quality Assurance in Higher Education.

Higher education institutions (HEIs) have a legal obligation to develop internal quality assurance systems. Implementation of the standards for internal quality assurance is in the first place the responsibility of the institutions. Internal quality assurance is one of the themes in the accreditation frameworks. An important element on the basis of which programmes are assessed for accreditation is whether there is a coherent system of internal quality assurance with clear goals and regular to monitoring which leads continuous improvement. The self-assessment report is an obligatory document in the accreditation file of higher education institution Students are involved in the preparation of self-assessment reports and in the follow-up procedures.

The external quality assurance system operates at national level; only accredited higher education institutions and programmes are entitled to award Bachelor, Master and Doctorate - PhD Accreditation and external quality assessment are a part of the work permit procedure performed by the Ministry of Education. The accreditation process comprises accreditation of all higher education institutions (institutional accreditation) and of all their programmes (programme accreditation). Seven public universities (85 faculties), 6 universities established by non-state founders (43 faculties) and more than 80 colleges of applied sciences (under the primary domain of the CAQA) are subject to compulsory national accreditation. The accreditation of HEIs carried out by the CAQA started in 2007. Accreditation has been completed for colleges which previously had two-year programmes. Colleges of applied sciences provide the first-cycle (vocational-Bachelor) programmes second-cycle (vocational-Master) programmes. It is envisaged that the first cycle of accreditation of all existing higher education institutions (245) and study programmes will be finished by the end of 2010.

#### 7. Admission

The main elements of admission policy are defined by the LHE. These rules apply to all

who wish to enroll at a higher education institution.

First, an independent higher education institution announces an admission competition which contains the number of students to be admitted to an individual study programme, the admission conditions, the criteria for candidates' rating lists and the procedure for carrying out the competition.

The number of students is determined by the higher education institution. The number of students may not exceed the number set in the work permit.

For a higher education institution whose founder is the Republic, the Government decides on the number of students to be enrolled in the freshman year of a study programme financed from the budget. The decision is taken after receiving advice from higher education institutions and the National Council not later than two months prior to the announcement of a competition.

# 8. Organisation of the academic year

A higher education institution organises and implements studies within an academic year commencing, as a rule, on 1 October and lasting 12 calendar months.

An academic year may be divided into:

- 1. two semesters, each lasting 15 weeks;
- 2. three trimesters, each lasting 10 weeks;
- 3. blocks of an aggregate duration of 30 weeks, the individual duration of which is established by the general act of the higher education institution.

#### 9. Curriculum content

The curriculum is defined at institutional level. However, it is the case that for certain professions (teachers who work in primary schools, doctors, pharmacists and similar occupations) some elements of the study programmes are broadly defined by other legislation. The curriculum for undergraduate studies for teachers needs to include 30 ECTS credits of pedagogical and methodological subjects.

Study programmes consist of compulsory and elective subjects.

The Law on Higher Education introduces ECTS as the mandatory credit system to be used by all higher education institutions in all degree programmes, for both credit transfer and accumulation. The ECTS system is fully implemented in all HEIs. Every study programme contains a precise description of

the courses and the number of ECTS credits. ECTS credits are based on the workload students need in order to achieve the expected learning outcomes.

# 10. Assessment, progression, certification and degree

The most common forms of assessment of students are written and/or oral exams.

Prior experiential learning is usually not recognised. There are some exceptional cases in which ECTS credits are awarded to students who volunteered for or participated in some non-teaching activities. The authorities are aware of this problem and this issue might become better regulated in the near future.

A student may continue studying in the next year after he or she has collected the appropriate number of ECTS credits. The number of ECTS credits necessary gained through exams is not the same for statefunded and self-funded students.

At the beginning of the academic year, a statefunded student needs to enrol on the number of courses that corresponds to 60 ECTS credits. A self-funded student can enrol on courses with a total value of 37 ECTS credits as a minimum.

Those who wish to work in certain professions (e.g., teachers, the medical professions, etc.) must work for one year after which they must pass the state exam.

Those who have obtained their degrees at universities can enrol in the next cycle of higher education.

#### 11. Academic staff

The main categories of teaching staff are teachers, researchers and associates.

The ranks of teachers in a higher education institution include: lecturer, professor of college of applied sciences, docent, associate professor and full professor.

To be selected as a teacher, a higher education institution will take into consideration the following elements: an assessment of the results of scientific, research and/or artistic work; an assessment of involvement in the development of teaching methods and the development of other activities of a higher education institution; an assessment of the results of pedagogical work, as well as the assessment of the results achieved in coaching junior teachers of sciences and/or arts.

In assessing the results of the pedagogical work, the opinion of students is considered.

#### 12. Research activities

Traditionally, all university institutions in Serbia have been linked to research through scientific projects granted by the Ministry of Science and Technological Development (http://www.nauka.gov.rs). In parallel with academic accreditation all faculties universities have to obtain national accreditation for scientific research. The LHE also provides research as a necessary part of academic life. It always was and still is an obligatory task for all academic institutions and their teaching staff. It is not obligatory for higher education institutions for applied sciences.

# 13. University-enterprise cooperation

The involvement of employers in the definition of curricula is not precisely regulated at national level. It is preferable, but not obligatory to consult these stakeholders during the redefinition of curricula. Employers are usually represented on higher education councils.

#### 14. International cooperation

The outbound mobility of national students is promoted and funded through the Fund for Young Talents. This fund was set up by the government. It is run by the Ministry of Youth and Sport. Two calls for applicants have been

organised so far; scholarships to study in the EU were awarded to 97 students in 2008 and 155 students in 2009. The fund also supports talented students who study in the country.

Inter-university cooperation is promoted by the activities of the National Council for Higher Education.

Apart from Tempus, the Framework Programme and Erasmus Mundus, higher education institutions participate in the Campus Europae programmes and the Central European Exchange Programme for University Studies.

Almost all universities and many colleges in Serbia have established bilateral cooperation with the EU countries, the USA, Canada, Asia and other regions. This cooperation is focused mainly on the mobility of students who come to Serbia, research and some through delivery of teaching processes, sometimes as joint or double degrees.

The Republic of Serbia has also signed around 23 bilateral agreements related to higher education with countries from different regions, half of them members of the EU.

Issues of mutual interest, such as bilateral student exchanges, mostly at postgraduate level, the exchange of lecturers and education experts, cooperation in research activities and the exchange of publications are the most common topics contained in these agreements.

### II. Current challenges and needs

### 1. Trends and challenges

Since the beginning of the reform of higher education system in Serbia, a lot has been done. However, this system is dynamic and certain important issues (mentioned below) need to be addressed in the near future. The HE system would in this way be able to meet constant changes and harmonise its development with ongoing trends and its environment.

#### **Amendments of the HE Law**

At central level, there is a need to further harmonise the Law on Higher Education, which was adopted in 2005 and amended in 2008 and 2010 with present needs. Analysis of the first round of institutional and study programmes accreditation process in the country (2007-2010) serves as the basis for amendments to the Law. It is being prepared by a working group which operates at national

level. This process will be completed in 2010.

One of the main challenges for the whole education system, including higher education, is the creation of an overall education strategy for the next 5-10 years. Progress in this respect is expected during 2010. The strategy also needs to include trends related to lifelong learning as an orientation unifying all factors that shape the education system.

Reform of the financing of the higher education system, measures for improvement of student mobility and recognition, strengthening the links between science and teaching are the challenges for all stakeholders and therefore they need to be addressed in this document.

The strategy and harmonisation of the law will take into account the need for achieving

flexible learning paths between academic and vocational/applied studies in order to permit students unhindered progress into the next cycle of higher education. The quality of the learning process and study programme provision at colleges of applied sciences that have passed the first round of accreditation needs to be further enhanced

#### **The National Qualification Framework**

Development of the national qualification framework for HE has almost been completed by the National Council for Higher Education. Formal adoption of the general framework is expected in 2010. It is planned to implement concrete measures related to the self-certification of the Serbian NQF in 2011. Although some sort of a dialogue with stakeholders exists, it needs to be further improved so that partners from industry are more systematically involved indecision making procedures related to redesign of study programmes and development of lifelong learning.

A specific contribution to the practical implementation of the qualification framework and to the drafting of the comprehensive strategy related to the needs of the higher education system is expected from the newly selected Tempus project 'Governance and Management in Higher Education in Serbia ' which started in January 2010. This project will also address another burning issue, the integration of universities in Serbia.

Along with the development and implementation of the sectoral qualification frameworks, it is expected that learning outcomes and ECTS credit allocation will be revised and tuned in cooperation with students, industry and other stakeholders. These changes will be very demanding because

of the necessity for the involvement of almost all higher education institutions in the country.

Proper implementation of the ECTS based on student workload and learning outcomes still remains a priority. Developing, describing and implementing learning outcomes is one of the main tasks of HE institutions in the coming period. The Commission for Accreditation and Quality Assurance also continually provides actions to assist higher education institution staff in applying the ECTS system.

#### **Quality assurance**

After the end of the first round of the institutional and study programmes accreditation process in the country (2007-2010), the Commission for Accreditation and Quality Assurance will apply for membership in the ENQA (European Association for Quality Assurance in Higher Education). In order to achieve this, the commission plans to undergo external evaluation of its work. The standards for accreditation will be revised according to the experience acquired in the first round of accreditation, the need to sustain the spirit of a quality culture and the possibility of supporting initiatives which are based on innovation, creativity and diversity.

#### Improvement of student participation

Student participation in all aspects of Bologna Process implementation needs to be increased. Student representatives also need to be included in the accreditation process and in the reassessment of student workload that will be performed.

Increasing the quality of student participation in these activities is significant and needs to be facilitated by the support of the relevant academic staff and representatives of former students.

### 2. The Bologna Process

#### The Bologna cycle structure

Level of implementation of a three-cycle structure compliant with the Bologna Process

Full implementation in all or most study fields

Student workload/duration for the most common Bologna programmes					
Bachelor programmes	Various combinations	Master programmes	60 ECTS (1 year)		

Bachelor/Master cycle structure models most commonly implemented

Various combinations

### European Credit Transfer System (ECTS)

Legislation on ECTS	Legislation governing the arrangements for implementing ECTS has been introduced.
Level of implementation of ECTS	Over 75% of institutions and programmes use ECTS for both transfer and accumulation purposes. Allocation of ECTS is based on learning outcomes and student workload.

# Diploma Supplement (DS)

Implementation of the Diploma Supplement	DS issued in vast majority of study programmes

Diploma Supplement	Automatically and free of charge	In the language of instruction and/or
issued	Automatically and free of charge	English

# National Qualification Framework (NQF)

		Not yet started formally.
Chara tawanda		Step 1: Decision taken. Process just started.
		Step 2: The purpose of the NQF has been agreed and the process is under way including discussions and consultations. Various committees have been established.
Stage towards establishing a National Oualification Framework	Х	Step 3: The NQF has been adopted formally and the implementation has started.
Quamicación Francisco		Step 4: Redesigning the study programmes is on-going and the process is close to completion.
		Step 5: Overall process fully completed including self-certified compatibility with the Framework for Qualifications of the European Higher Education Area.

# National Quality Assurance System

National Body for Quality As	surance			
Name	Commissi	Commission for Accreditation and Quality Assurance (CAQA)		
Year of establishment	2006			
Status	Independ	ent national body		
Principal "object" of the				
evaluations	Institutions plus programmes			
Body responsible for	Both publ	ic and private higher education institutions		
Main outcome of the	A decision granting the reviewed institution/programme permission to operate/teach at certain levels/undertake research, etc.			
review		Advice on how the reviewed institution/programme can improve quality in specific areas		

# Recognition of qualifications

Ratification of the Lisbon Recognition Convention	yes	2003		
Adoption of national laws/regulations required to implement the Lisbon Recognition Convention	yes	2005		
Institution responsible for recognising foreign qualifications for the purpose of academic study in the country	Higher education institutions			
Institution responsible for recognising foreign qualifications for the purpose of work in the country	Ministry of Education, in cooperation with the Council of Europe, within the project "Strengthening Higher Education in Serbia", financed by the EU, is preparing a bylaw on the recognition of foreign qualifications for the purpose of work.			

# III. Participation in EU programmes

#### 1. Tempus

Institutions located in present-day Serbia have participated in the Tempus programme since 2001.

#### 1. Statistics

Number of projects in which one or several institutions in the country have been involved (as coordinator, contractor or partner)

	TEMPUS TEMPUS I and II III		TEMPUS IV		
	1990-1999	2000-2006	2008	2009	2010
Joint European Projects	0	81	15	11	9
Structural & Complementary Measures (Tempus III) Structural Measures (Tempus IV)	0	22	2	2	3
Total	0	103	17	13	12

# Higher education institutions with highest TEMPUS participation during TEMPUS I to III (1990-2006)

Institutions	Total	Number of projects		
Institutions	iotai	JEP	SCM	
UNIVERSITY OF BELGRADE	53	41	12	
UNIVERSITY OF NOVI SAD	53	35	18	
UNIVERSITY OF NIS	38	27	11	
UNIVERSITY OF KRAGUJEVAC	22	14	8	
UNIVERSITY OF ARTS (BELGRADE)	7	2	5	
UNIVERSITY KRAGUJEVAC	5	3	2	

#### 2. Impact of the TEMPUS Programme

The higher education reforms in Serbia initiated in 2000 put the focus on restructuring and modernisation of study programmes to be in line with the latest European trends. The need for support in updating curricula was common for all universities and all subject areas. Therefore, the Tempus programme, as the largest instrument for assisting universities in this regard, maintained broad priorities for curriculum development (CD) JEPs (Joint European Projects). Curriculum development projects made an impact on:

- reform of existing or creation of new undergraduate or postgraduate (Master) study programmes
- updating of content, creation of modular structure, introduction of the ECTS and new methodologies
- mobility of teachers and students and full recognition of study periods spent at partner institutions

Most of the Tempus III Joint European Projects in Serbia addressed the restructuring of the

Bachelor and Master Programmes in line with the Bologna principles. This restructuring was not limited to the formal introduction of 3+2 or 4+1 Bologna formulae. The main outcomes of these projects were the introduction of new, updated content and the modernisation of their provision, including the use of modern information and communication technology, the promotion of interdisciplinary studies and introduction of quality control mechanisms.

In many projects, special activities were carried out aiming at the development of the ECTS. This includes the first attempts to define the learning outcomes of each module. Tempus projects were used for transferring EU partners' experience in this field. However, the opportunities for developing quality assurance mechanisms were not well exploited and this issue needs further attention.

Most of the JEPs were using the opportunities for organising appropriate teacher training efficiently. A large number of academics had a chance to spend a retraining period in partner institutions.

Given the limited possibilities for Serbian students to visit EU universities, the

opportunities offered by CD JEPs are appreciated. Many JEP have developed student mobility, with initial attempts at developing appropriate recognition procedures.

Faculties from almost all subject areas participated in JEPs.

The JEPs used the opportunity for allocation of 30% of the total budget for the purchase of equipment and for improving the teaching facilities appropriately. The most significant result is an upgraded IT environment in the majority of faculties and the secured access for students to modern equipment and software. Some faculties have developed a basis and methodology for initiating distance learning.

#### **University Management Projects**

University Management Projects in Serbia provided support to higher education institutions in proceeding with the overall reform and implementation of the HE law and institutional development and reform. The following areas have been targeted in particular:

- Optimisation of the faculty-university relationship - promotion of an integrated university of which faculties are constituent parts;
- Reform of university governance, management and finance;
- Introduction and strengthening of mechanisms of strategic management at higher education institutions
- Development of a coherent institutional approach to the restructuring of curricula and degrees in line with the Bologna Declaration,
- Introduction of the European Credit Transfer System and Diploma Supplement;
- Reinforcing the skills and capacities of the management and the administration of universities (international relations offices, management and library information systems, financial management, public relations and marketing);
- Strengthening of student associations and student services, including students career counselling; establishment of alumni associations;
- Development of quality assurance systems;
- Promotion of close links with the local and regional economy through technology and knowledge transfer.

All university libraries in Serbia are interconnected and included in an integrated library network thanks to the activities in two Tempus UM projects

 Building a Cooperative Academic Library Network in Serbia • Web-Based Interuniversity Library Network

Some areas of Tempus University Management projects are also covered within the category of one-year Structural and Complementary Measures projects.

# Institution Building and Networking Project

The Institution Building (IB) projects addressed the transfer of the experience of EU universities in, for example, the training of judges using distance learning (the European Area of Justice Tempus project). The projects developing capacity-building courses for nonuniversity target groups in the creation of a platform Balkan Agri-Sector and development of atraining programme related to adapting EU environmental legislation and norms (the Balkan Agri-Sector Initiative for Capacity Building) addressed important objectives.

Two networking projects that are very close to the IB type encouraged the introduction of a new methodology in the training of teachers (e.g. the Continuous Education for Informatics Teachers in Elementary and Secondary Schools in Serbia project) and contributed to making university structures for supporting a small and medium enterprises network (the Small and Medium Enterprises Network in Serbia and Montenegro and BiH networking project), European Computer Driving Licence training (ECDL for Serbian Administration) and providing support for ecological training courses. Four IB projects were also realised.

Due to the specific circumstances there have not been many training courses for institution building in Serbia throughout Tempus III due to the prevailing necessity of CD and UMoriented actions following a period of long isolation which almost no other programme during this period could support with such a wide scope and considerable funds. There is an understanding that IB projects can be strengthened in the next phase of Tempus development Serbia together with in developing a university-enterprise component in projects.

#### **Structural and Complementary Measures**

Most SCMs in Serbia supported the implementation of Bologna lines of action. They are aimed at introducing a university strategy for the implementation of the Bologna Process, implementation of the ECTS, new methods for student knowledge verification, establishment of National Teams of Bologna promoters and joining the Tuning Education Structures in Europe project, and also training for EU accession.

SCM projects made a contribution to regional cooperation and networking in the fields of architecture (the Recognition of Architectural Degrees in CARDS Countries based on

Competences and Learning Outcomes Tempus project) and university international relations offices (the International Relations' Policy for Integration Promotion Regional Establishing Central University Services projects) and they also addressed the development of cooperation with industry (projects for Mechatronics (Restrukturierung Und Einführung der Mechatronik an den Universitäten in Serbien), a river water monitoring system (Construction of Pilot Devices for an Advanced River Water Quality Monitoring Station) and medical informatics (Structuring and Complementing Continuous Education in Medical Informatics).

The first Tempus students' project is an SCM

aimed at assisting and the establishment and proper functioning of student parliaments and student knowledge verification: The implementation of student parliaments in Serbia and Montenegro

#### **Individual Mobility Grants**

As well as the obility realised within institutional projects (JEPs and SCMs), the Tempus programme has provided a number of Individual Mobility Grants for the academic and administrative staff of higher education institutions in Serbia. These grants were usually used for re-training or a study period for collaboration on a specific academic subject or part of the curriculum leading to its redesign and up-dating.

#### 2. Erasmus Mundus

Erasmus Mundus (2009-2013) is a cooperation and mobility programme in the field of higher education with a strong international focus. It operates through three actions:

#### Action 1 - Erasmus Mundus Joint Programmes (Master Courses and Joint Doctorates)

Erasmus Mundus Joint Programmes are operated by consortia of higher education institutions (HEIs) from the EU and (since 2009) elsewhere in the world. They provide an integrated course and joint or multiple diplomas following study or research at two or more HEIs. Master Courses and Joint Doctorates are selected each year following a Call for Proposals. There are currently 123 Master and 24 Doctorate programmes offering EU-funded scholarships or fellowships to students and scholars from all over the world.

#### <u>Action 2 - Erasmus Mundus Partnerships (former External Cooperation Window)</u>

Erasmus Mundus Partnerships bring together HEIs from Europe on the one hand and from a particular region in the world on the other. Together the partnerships manage mobility flows between the two regions for a range of academic levels – bachelors, masters, doctorate, post-doctorate – and for academic staff. The programme is focused on geographical "lots" of countries or regions covered by the EU's financial instruments for cooperation. These lots include most Tempus countries. New partnerships are selected each year through Calls for Proposals.

#### <u>Action 3 – Erasmus Mundus Attractiveness projects</u>

This Action of the Programme funds projects to enhance the attractiveness, profile, image and visibility of European higher education worldwide. HEIs (and other key players in the HE sector) may apply.

More information: <a href="http://eacea.ec.europa.eu/erasmus mundus">http://eacea.ec.europa.eu/erasmus mundus</a>

#### Number of students/staff participating in the programme

#### **Erasmus Mundus – Joint degrees (Action 1)**

	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Students	1	6	3	30	46	65	61
Scholars	-	-	-	2	6	2	N/A

Nationals of the country participated in the programme for the first time in 2004/2005 (students) and in 2007-2008 (scholars).

#### **Erasmus Mundus- Partnerships (External Cooperation Window, Action 2)**

Year of the Grant Allocation	2007	2008	2009
Undergraduate	-	22	122
Master	-	17	43
Doctorate	-	18	22
Post-Doctorate	-	1	5
Academic staff	-	18	37
Total	-	76	229

#### Institutions participating in the programme up to and including 2010

Institutions	Action 1 Joint Programmes	Action 2 Partnerships	Action 3 Attractiveness projects
INSTITUTE FOR FOOD TECHNOLOGY			X
NOVOSADSKO UDUZENJE STUDENATA SA INVALIDITETOM		X	
UNIVERSITY OF BELGRADE	X	X	
UNIVERSITY OF KRAGUJYEVAC		X	
UNIVERSITY OF NIS	X	X	
UNIVERSITY OF NOVI SAD		X	X

# IV. Bibliographical references and websites

- Ministry of Education <u>www.mp.gov.rs</u>
- Commission for Accreditation and Quality Assurance www.kapk.org
- Ministry of Youth and Sport <u>www.mos.gov.rs</u>
- Ministry of Science and Technological Development <u>www.nauka.gov.rs</u>
- Stocktaking report submitted in 2008 available at the website of Bologna Follow-up Group
- National Tempus Office <u>www.tempus.ac.rs</u>
- National Council for Higher Education was consulted during the preparation of section 3.1

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