# **SERBIA - Opportunities for Cooperation**

Education system in Serbia

Serbia in Tempus and other EU programmes

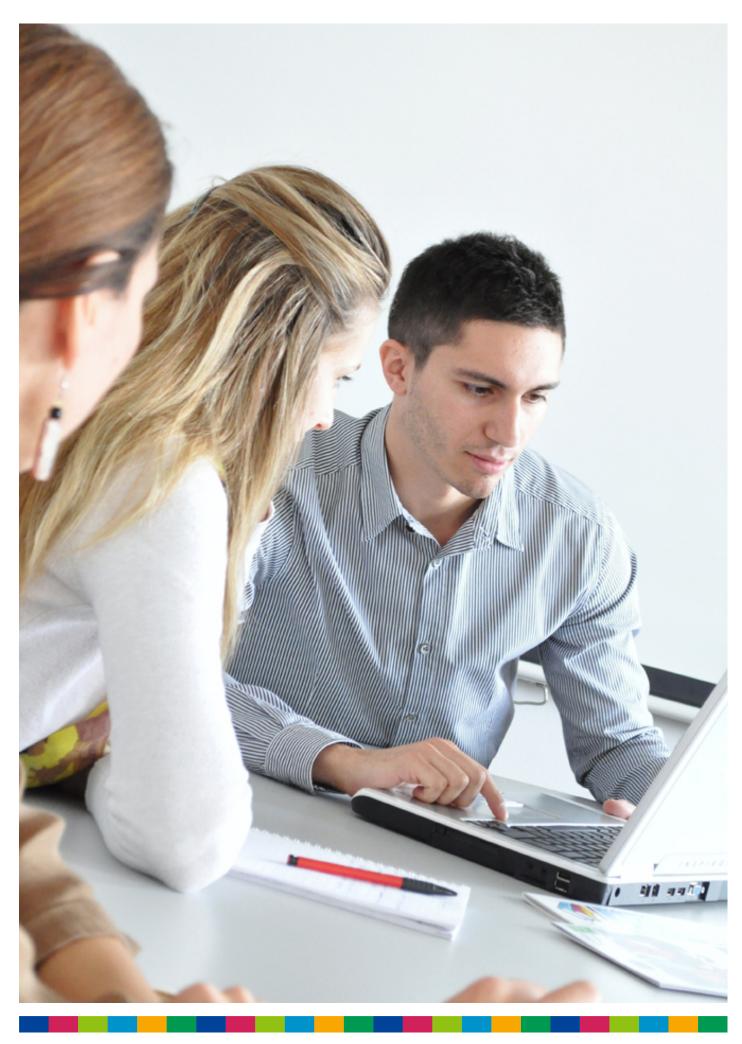
Suggested areas of cooperation











# **Education system in Serbia**

The current education system in Serbia is composed of pre-primary (from 0 to 6/7 years), primary (with two cycles: grades 1 to 4 and 5 to 8), secondary education (either four-year grammar or three- or four-year vocational secondary school) and tertiary (higher) education. In the first cycle of primary education, children are taught in self-contained classes.

The principal language of instruction is Serbian; other languages of instruction include Albanian, Bulgarian, Croatian, Hungarian, Romanian, Russian and Slovak at the elementary and secondary levels. Children in lower grades have one class teacher, who teaches all subjects with the exception of religion or civic education, and foreign language, for which there are separate teachers.

Foreign language has recently been made compulsory from the first grade, and a second foreign language from the fifth. Bilingual education is implemented in some primary and secondary schools.

#### **Preschool education**

This level of education encompasses children from six months to primary school age. The founder of most preschool institutions (kindergartens) is the Republic of Serbia, autonomous province and municipality/city. These institutions may also be established by citizens and other institutions.

Preschool education is not compulsory, but starting from the school year 2006/07, Serbia introduced a compulsory preparatory preschool programme for all children aged 5.5 to 6.5. In 2009 its duration was extended from 6 to 9 months. The preparatory preschool programme is free of charge, if realised by a state kindergarten or school.

In Serbia there are 159 state preschool institutions in 2 364 facilities, and 57 private institutions. In settlements where there are no kindergartens, the preparatory preschool programme is implemented in primary schools: There is an increasing number of children of all ages receiving preschool education.

Total coverage of children of all ages is increasing (the Ministry of Education, Science and Technological Development data: in 2002 - 32%, and 2009 - 47.37%).

Children with disabilities are included in the preschool educational system, in regular and special (development) groups, and the right to education is also provided to children in hospital treatment. Members of national minorities have the right to education in their native language, bilingually, or in the Serbian language.

Preschool education 2

## **Primary education**

Primary education is compulsory, takes eight years and is carried out in two educational cycles.

The first cycle covers the first four grades. All subjects in this stage are taught by class teachers, while some subjects, such as arts and foreign languages, may be taught by subject teachers, who teach these subjects in the second cycle. The second cycle covers 5th through 8th grade, where each subject is taught by subject teachers.

Children are admitted in the first grade of primary school when they are not less than 6.5 and not more than 7.5 years old, with the certificate of preschool programme attendance. Primary education is free of charge in state schools, while in private schools parents bear the costs of education.

#### Primary music education and primary ballet education

Besides the compulsory primary school, the system also includes primary music and primary ballet schools and schools for music and ballet talents. These schools are not compulsory. Their attendance is free of charge and funded at central and local levels. Primary music education takes 2 to 6 years and ballet 4 years.

#### **Primary adult education**

Primary adult education takes from three to five years and is organised by grades, from first to eighth grade (as a rule, 2 grades are completed in 1 year). Students who turned 15 can be admitted to adult education. In Serbia there are only 14 schools for adult education, which does not correspond to current needs. Regular primary schools can also implement programmes for primary adult education.



3 Primary education

## **Secondary education**

Upper secondary schooling consists of four years of general education or two to four years of vocational education. Grammar schools (*gimnazija*) offer four years of general and broad education, with the option to specialise in languages, social sciences, mathematics, natural sciences (*prirodni smer*), information technology or philosophy. Students who have graduated from grammar schools can enrol at almost any faculty, and professional school students can proceed to tertiary education at faculties and colleges that fit their specialisation. Legislation on secondary education states that students enrolled in three-year vocational education and training (VET) programmes can take additional exams to qualify for taking university entrance exams.

Matura-type exams are being prepared for four-year general, technical or arts education and are expected to start in 2015. (Matura is a standardised final exam specified for different subjects, allowing entrance to higher education.)

Secondary education also includes educational programmes for talented students and students with disabilities, and adult education.

#### **Grammar schools**

General secondary education is acquired at grammar schools. There are two types of grammar schools: grammar schools of general type and specialised ones. Grammar schools of general type may organise four programmes: general, sociolinguistic, natural sciences and IT.

Specialised grammar schools are intended for education of talented students in certain areas. There are mathematical, philological, sports and computer science grammar schools. Grammar schools of general type also organise classes of students who show talent in special areas: mathematics, physics, languages or sports. Some regular grammar schools have bilingual classes, where a number of subjects are taught in foreign languages: French, Italian or English.

At the end of four-year grammar school education there is a graduation exam and as of the school year 2014/2015 there will be a general external matura.



#### Secondary vocational and artistic education

Secondary vocational education is acquired at vocational schools that prepare students for work in 15 areas (agriculture, forestry, geology, mechanical engineering, electrical engineering, graphic industry, textile, construction, transport, hydrometeorology, commerce, economics, health, art, personal services).

At secondary vocational schools students acquire and develop general and vocational knowledge and skills for further education or work. At these schools, the duration of education is not uniform: there is education and vocational training that lasts for up to one year, work education for two years, secondary three-year and four-year education, specialist and master's education (after two years) for a period of one to two years. Vocational schools also organise retraining and additional training programmes.

At least 40% of general and 55% of vocational content is represented in the four-year programme, whereas the respective figures in the three-year programme are 30% and 65%. Practical teaching is conducted in school workshops and in the workplace. The final exam is taken at the end of a three-year educational programme, and the school-leaving exam is taken after a four year educational programme. Upon completing a specialist or master's education programme, a specialist or master's exam is taken and a certificate issued. In the vocational education reform process employers have participated in the development of new curricula, i.e. in 56 pilot programmes in 13 areas of work. Their representatives are members of commissions for the final exam or professional graduation in pilot programmes.

The curricula provided are modular and outcome-oriented. In the school year 2010/2011 the number of students attending the pilot profiles has increased to 17% of the total number of students at secondary vocational schools.









**Secondary arts education** takes four years and is realised in music, ballet and visual art schools in the area of culture, art and public information. Arts matriculation is taken upon completion of secondary arts education. Secondary music schools educate the following profiles: music artist (vocal and instrumental, jazz department, department of early music, department of church music), musical associate (theoretical, department of ethnomusicology) and sound designer.

In secondary ballet schools, education is provided in the following departments: classical ballet, modern dance and folk dance. Schools of visual arts educate the following profiles: art technician, curator, designer and artistic handicrafts.



#### Secondary adult education

Secondary schools can offer a special curriculum for adult education, vocational training programme, and training. Other associations or individuals can implement special programmes in the areas of adult education if they meet prescribed standards for the implementation of special programmes and receive approval from the Ministry. The Law on the Foundations of the Education System has opened the possibility to entrust adult education to other institutions, associations and individuals who meet the prescribed standards.

In the secondary educational system, through the EU Programme for Serbia – CARDS Vocational Education and Training (VET) Reform Programme and IPA 07 project "Modernisation of the VET system in Serbia" which focuses on the support of vocational education of adults, Regional Training Centres (RTC) were established, operating as separate organisational units.

Regional training centres for adults are leading regional institutions for vocational education, training and adult training, managing over 40 training programmes, accredited by the Ministry of Education, Science and Technological Development, and also acknowledged by the National Employment Service.

## **Higher Education**

Serbia joined the Bologna Process in 2003 and thus initiated a gradual reform process, which received its legal support in 2005 by the adoption of a new Law on Higher Education. This law formally introduced the European Credit Transfer System, three-cycle system of study and diploma supplement. From 2007/08 all new attendants study under the new reformed study programmes at all higher education institutions.

Higher education system has two types of studies: academic studies organised at universities, and vocational profession-oriented studies organised either at colleges of applied studies or at universities.

Serbia currently has 17 accredited universities - 8 state universities, and 9 private universities. There are altogether 64 (47 public and 17 private) accredited vocational study colleges, and eight colleges providing academic study programmes at which both first and second level (Bachelor and Master) programmes are taught.

The law provides that, in addition to the above-mentioned institutions, there are also academies of applied studies – institutions that integrate several vocational colleges. In the higher education system there are currently no such institutions, although there are reflections on their formation in order to achieve better functionality.

The three-cycle system of academic studies includes: basic academic studies lasting 3-4 years, carrying 180 to 240 ECTS, master studies lasting 1-2 years with 60 to 120 ECTS, and doctoral studies with a minimum of three years of study or 180 ECTS. In the field of medical science (the studies of medicine, dentistry and veterinary medicine) integrated study programmes that last 6 years and must carry a minimum of 360 ECTS, as well as integrated pharmacy studies with 300 ECTS have been introduced. In addition, the second cycle of academic studies includes specialist academic studies with the minimum duration of one year and carries 60 ECTS if a student achieved a total of 300 ECTS in previous studies.



7 Higher education

Vocational studies comprise two levels: basic vocational studies, which last three years and have 180 ECTS, and specialised professional studies, which carry 60 ECTS and last one year.

All higher education institutions must be accredited before obtaining the working license issued by the Ministry of Education, Science and Technological Development. Private higher education institutions (not founded by the Republic), which are in the educational system of the RS, have the same status as higher education institutions founded by the Republic.

Candidate ranking at public higher education institutions determines a list of those whose studies are financed from the state budget on the basis of study success. Each academic year, at the proposal of the National Council for Higher Education, the Government approves the number of budget-financed students in higher educational institutions founded by the Republic of Serbia.

Students who study at private higher education institutions pay fees as determined by the higher education institution. All students who complete their first and second level degree studies, in addition to the diploma, should get free of charge the diploma supplement in the Serbian and English languages.

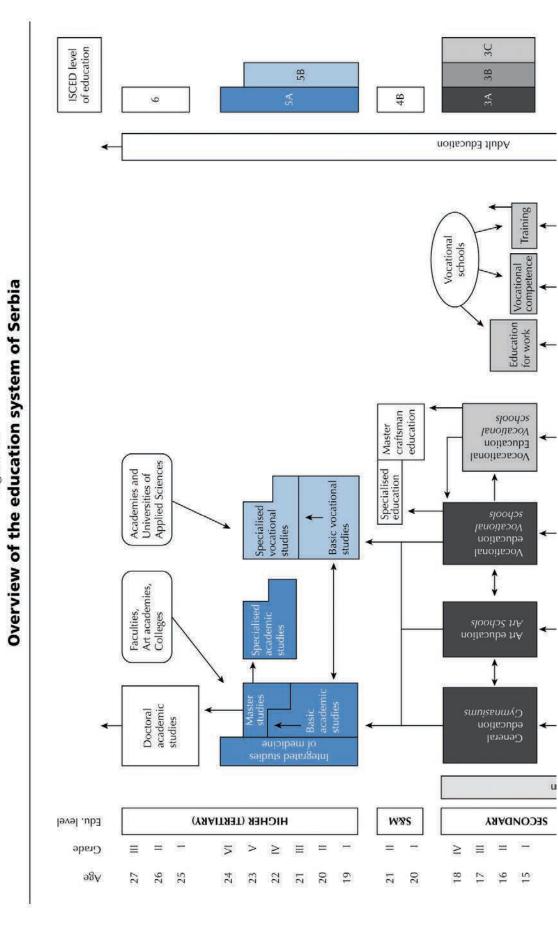
#### Number of students registered at higher education institutions

At all higher education institutions in the Republic of Serbia (universities, faculties and vocational and academic study colleges), both founded by the Republic (government) and private ones, a total of 266,939 students is registered in all types and levels of study. There are 216.647 students alltogether at state and private universities and 50.292 students at vocational colleges. The largest number study at state universities - 85 %, while approx. 15% study at private higher education institutions.

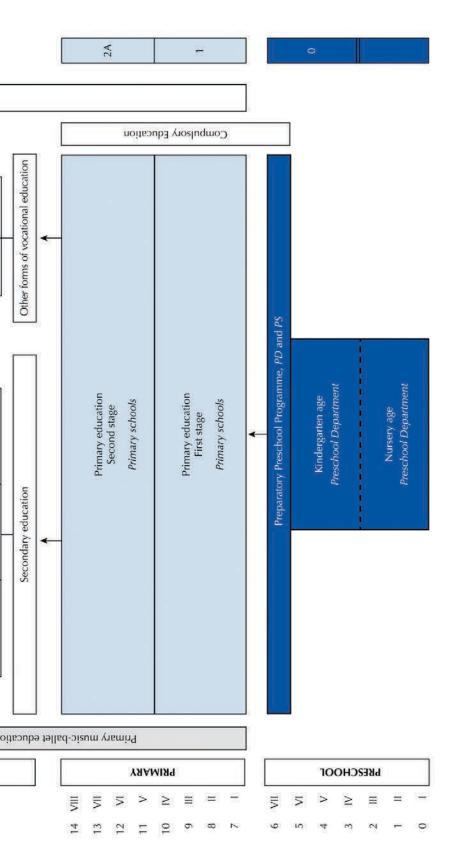
Most of the students study at four biggest state funded universities: the University of Belgrade (the largest and oldest university in Serbia) with 31 faculties and 75 037 students; the University of Novi Sad with 14 faculties and 46 857 students; the University of Nis with 15 faculties and 29 327 students; the University of Kragujevac with 11 faculties and 14 263 students. The largest private universities are: Megatrend University (13 671 students) and Singidunum University (10 291 students).



Higher education 8



• Figure 1.1 •



Notes: Level 4B is available after 2 years of practice after the completion of secondary vocational education, for a period of one year after 4-year educationand two years after 3-year education.

Start and duration of primary musical and ballet education depend on the department.

Source: Ministry of Education and Science (MoES).

# The main objectives of the recent reforms involve increasing the quality and relevance, equity and efficiency of the educational system

The National Education Council developed the Directions for the Development of Education in Serbia. A detailed comprehensive Proposal of the Strategy for Education Development was finalised in April 2012, adopted in October 2012 and the action plan is expected to follow.

#### a) Teaching education:

- A new system of initial teacher education is being introduced. It involves the mandatory education of teacher-students in psychological, pedagogical and subject-didactical disciplines and teaching practice acquired during the studies or upon completion of a minimum of 36 (30+6 practice) credits according to the European Credit Transfer System (ECTS), which can be acquired during the studies or afterwards as a separate module. Starting from 2012/2013 academic year, teachers who get employed as novice teachers are required to have the minimum of 36 ESTS (Article 179 of the Law on the Foundations of the Education System). This development is of particular importance for improving pedagogical skills of subject teachers, teachers in secondary schools and teachers in vocational and technical schools, whose current basic education almost exclusively consists of strictly subject-related, theory-oriented courses. New programmes have already been offered at some faculties, while on others they are still being developed, and a new TEMPUS project (MASTS) is supporting the creation of a new teacher education curriculum. Further development and fine-tuning of the new programmes and an expanded offer are also expected after 2012.
- A new way of organising teacher internship (the induction period), which implies substantial mentoring and a new system of licensing, ensuring higher transparency and the application of innovations in teaching, will be effective from September 2011 (internship) and September 2012 (licensing).



- Improving the regulation of professional development of teachers, which involves fostering peer learning within the school, school networking, clearer prioritisation of required training programmes, linking the training programmes with lifelong learning opportunities and mandatory evaluation of the effects, will come into force in 2011. Regulations in this area are being finalised and new regional centres for professional development have been opened.
- Career advancement of teaching staff is also innovated in the same regulations. An important novelty is the introduction of Pedagogical Assistants as a new profile that performs work at schools, primarily assisting Roma students.

#### b) Curriculum:

- -An important curricular innovation in primary and secondary education, starting from September 2010, is the introduction of Individual Education Plans, which support the education of children with disabilities and gifted children.
- -Further innovations and a primary education curriculum reform with a focus on developing a standard- and competence-based curriculum are planned. The Ministry of Education, Science and Technological Development expects support for this development from the IPA 2011 General Education and Human Capital Enhancement project.
- -Curriculum reform in vocational education has been carried out since 2003, when the introduction of new educational profiles began, with curricula converted into modules and teaching programmes based on outcomes. The reform direction is embodied in the Strategy for Secondary Vocational Education and its action plan. In the 2010/11 school year, pilots in 9 profiles were included system-wide as regular programmes after evaluation. For each school year successive system-wide introduction of the evaluated pilot profiles into regular education and training system is planned. the completion of the entire roll-out is planned for 2014/15, with the introduction of VET matura. In addition, a smaller-scale innovation of all curricula in vocational education will be introduced system-wide in the 2011/12 school year.
- -The Ministry of Education, Science and Technological Development supports the use of IT in teaching. On the basis of the Protocol of Collaboration, which the Ministry of Education, Science and Technological Development signed with Telekom Serbia, ADSL Internet has been introduced in about 80% of primary and secondary schools. In the other 20% of schools Internet could not be introduced due to terrain configuration. Number of students per computer in the 2008/2009 school year was 1:37 in primary schools and 1:15 in secondary schools. A new electronic platform for teachers ("Open school") has been introduced recently, featuring a database with innovative class-plans, instructions for classes and supplementary materials, available to all teachers (in terms of uploading,

commenting and usage for their own teaching needs). The web portal was launched in January 2011 and its further development will proceed in 2012.

#### c) Quality assurance

- -A new framework for external quality assurance for educational institutions has been developed with the support of the Dutch Inspectorate. It was adopted in 2010, and will be implemented in the 2011/12 school year, after adviser training and bylaw development.
- -In accordance with the Law on the Foundations of the Education System, school supervision and inspection bodies started to monitor, violence prevention and discrimination in education, and the inclusion of vulnerable groups and children with disabilities from the end of 2009.
- -Schools have been conducting self-evaluation since 2003, and since 2009 this obligation has been increased and implemented, with the involvement of parents and students, as a basis for creating school development plans for a 3-5 year's period.
- -The final school-leaving exam in primary education introduced in 2011 will be innovated in the coming years. It is anticipated that full synergy of final exams with the standards of achievements for the end of primary education will have been accomplished by 2014.
- -The final exam at the end of three-year secondary education, which now exists only in pilot classes, will be first implemented in all vocational schools in June 2014, and matura after four years of secondary general and vocational education in June 2015.
- -Serbia will continue to participate in international reviews of student achievements, PISA and TIMSS.
- -Periodical national assessments of student achievements have been conducted since 2004.

## d) **Management**

Schools are required to form their own teams for different areas of development (e.g. for violence prevention, inclusion, etc.). Schools are required to develop School Development Plans (SDP) which are based on obligatory self-evaluation. In the future, along with the development of a new financing system, new financial mechanisms will be created for the support of SDPs from local self-government budgets. The new law has increased the role of the Parents' Council in school life and strengthened the role of Students' Parliament through their participation in the processes of self-evaluation and development planning, and school boards. In the forthcoming years, programmes will be created to support the implementation of the new legislation in this area. The introduction of mandatory training for school

principals is expected - this training programme is currently being developed and complete implementation is expected in 2012.

#### e) Textbooks

The new policy on publishing textbooks and a new way of approving textbooks according to transparent criteria began to operate in 2010, on the basis of the new Law on Textbooks and Teaching Materials. The law, among other things, stipulates licence to publishers, textbook quality standards and selection of textbooks by the school. Innovations in publishing of textbooks, teaching materials and teaching aids have been introduced as pilots in succession since 2003, tested and evaluated. The National Education Council adopted the Standards of Textbook Quality and the manual for its implementation in 2010. Optional revision or fine-tuning of these standards is planned on the basis of effect evaluation, if required.

#### f) Financing

The development of a new system of financing education by per student capitation with coefficients for different students and different types of institutions is underway. It is planned to be introduced as pilot in 2011/12, and introduced system-wide by 2015. In parallel with this, the Ministry of Education, Science and Technological Development is working on rationalising class size and schools and reducing personnel redundancy in order to improve the efficiency of the educational system. Stabilisation of this activity is expected by the 2012/13 school year.

The Law on the Foundations of the Education System provides a new way of financing the activities of educational institutions, in which the funding of institution activities will be established on the basis of the economic cost of educational programme implementation, per child and student. Modalities of application, detailed conditions and criteria for determining the economic cost of education per child and pupil/student, are currently being developed by the Ministry of Education, Science and Technological Development through seminars and training of employees and other stakeholders.



# Serbia in EU education programmes

Serbia has been participating in EU education programmes for more than 10 years. Until now, more than 160 Tempus projects have been implemented. Since the beginning of the fourth phase of the Tempus programme, higher education institutions have also showed their capacities to coordinate projects – they have coordinated a half of altogether 66 Tempus IV projects.

Apart from participation in Tempus, higher education institutions also participate in the Erasmus Mundus programme and the Lifelong Learning Programme. Both programmes are very useful for a better understanding of cooperation on equal footing with EU education and other organisations.

All the biggest universities from Serbia participate in Erasmus Mundus Action 2 projects, in which they actively exchange students with EU universities. Some of them even managed to participate as full partners in Action 1 and Action 3 projects and they are participating in the development of joint master and PhD programmes.

Serbia officially joined the centralised part of the Lifelong Learning Programme in December 2011. In the last call for proposals in 2012, 13 projects were selected for funding with the participation of institutions from Serbia. Foundation Tempus - National Tempus Office, in cooperation with the Ministry of Education, Science and Technological Development, is ready to provide assistance to all institutions interested in cooperation with Serbia.

# Suggested areas for cooperation

- Initial and in-service teacher training
- Roma education
- Social inclusion
- Language training
- Curriculum Development and Reform in line with labour market needs
- Prevention of violence in schools
- Tuning Harmonization of learning outcomes in various subject areas
- Cooperation with the industry
- Entrepreneurship in education
- Career guidance

# **Tempus IV priorities - Call 6**

Unlike the Erasmus Mundus and Lifelong Learning Programme, there are Tempus national priorities which have to be respected when consortia apply for national projects. It is also possible in Tempus to apply for regional or multi-country projects and in that case either regional or national priorities of participating beneficiary countries have to be respected. Having in mind that Serbia belongs to the Western Balkan region, here are its national and the Western Balkans regional priorities:

Priorities for Joint Projects	National priorities – Serbia	Regional priorities – Western Balkans
Curricular Reform	Teacher training and education science, Social and behavioural science (all excluding economics), Business and administration, Law, Veterinary, Robotics and aeronautical engineering, Urban and regional planning, Building and Civil engineering, Nursing and caring, Dental studies, Social services, Personal services, Transport services, Interdisciplinary and Multidisciplinary sciences.	Education/pedagogy (including primary and secondary teacher training), vocational education and training, rural development, law and good governance (including human rights)
Governance Reform	It is not possible to submit this type of national joint projects for Serbia in Call 6	<ul> <li>University management and services for students</li> <li>Introduction of quality assurance</li> <li>Institutional and financial autonomy and accountability</li> <li>Equal and transparent access to higher education</li> </ul>
Higher Education and Society	<ul> <li>Training of non-university teachers</li> <li>Training courses for public services (ministries, regional/ - local authorities</li> <li>Qualifications frameworks</li> </ul>	<ul> <li>Development of partnerships with enterprises</li> <li>Knowledge triangle education-researchinnovation</li> <li>Training courses for public services (ministries, regional/local authorities)</li> <li>Development of lifelong learning in society at large</li> <li>Qualifications frameworks</li> </ul>

Tempus programme

Priorities for Structural Measures	National priorities – Serbia	Regional priorities – Western Balkans
Governance Reform	<ul> <li>University management and student services</li> <li>Institutional and financial autonomy and accountability</li> <li>Development of international relations</li> </ul>	<ul> <li>University management and services for students</li> <li>Introduction of quality assurance</li> <li>Institutional and financial autonomy and accountability</li> <li>Equal and transparent access to higher education</li> </ul>
Higher Education and Society	<ul> <li>Training of non-university teachers</li> <li>Development of partnerships with enterprises</li> <li>Development of lifelong learning in society at large</li> <li>Qualifications frameworks</li> </ul>	<ul> <li>Development of partnerships with enterprises</li> <li>Knowledge triangle education-research-innovation</li> <li>Training courses for public services (ministries, regional/local authorities)</li> <li>Development of lifelong learning in society at large</li> <li>Qualifications frameworks</li> </ul>

As Tempus priorities change from year to year, it is advisable to consult the Programme web-page and the latest text of the Call for proposals on the following link:

http://eacea.ec.europa.eu/tempus/funding/higher\_education\_institutions\_en.php

## **Useful information**

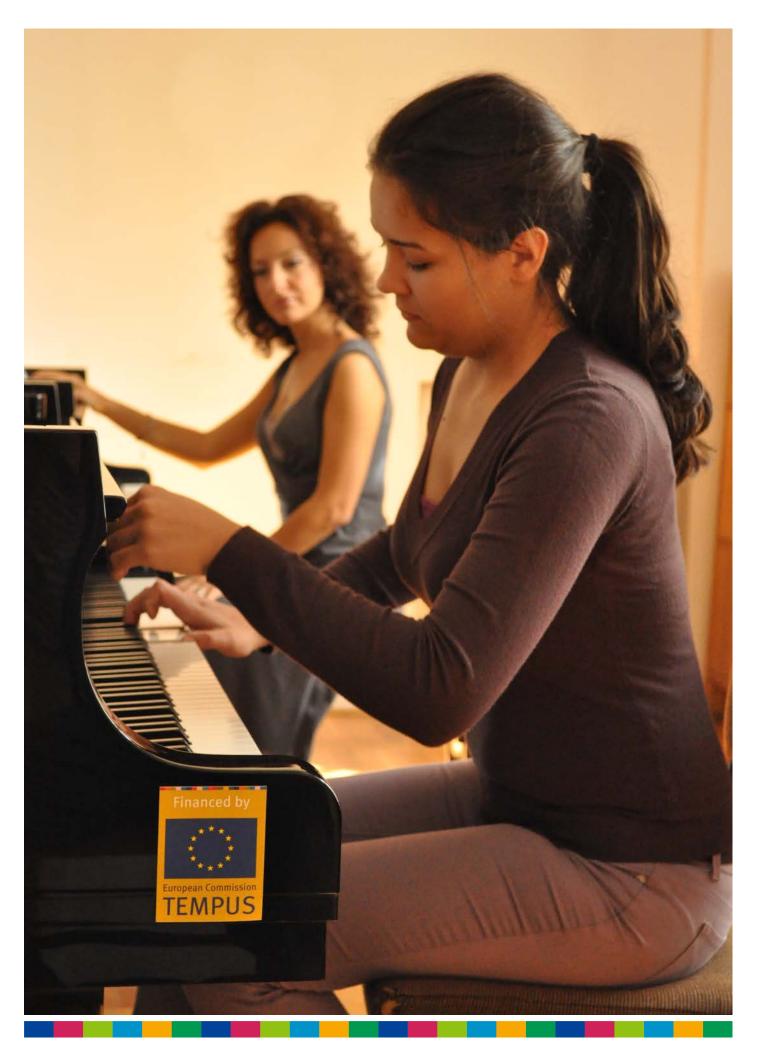
## Registry of education institutions can be found on the following address:

http://www.mpn.gov.rs/sajt/section.php?sekcija=31

#### References

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- 2. OECD (2012), Strengthening Integrity and Fighting Corruption in Education: Serbia, OECD Publishing. http://dx.doi.org/10.1787/9789264179646-en

17 Tempus programme





## Foundation Tempus - National Tempus Office, Serbia

Kneginje Zorke Str. 77/6, 11000 Belgrade, Serbia

Phone/Fax: +381 11 344 3442; +381 11 344 3342

E-mail: office@tempus.ac.rs

www.tempus.ac.rs

