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Co-ordination of Research Policies
with the Western Balkan Countries



Summer 2011

Background Report on Social Sciences and Humanities Bosnia and Herzegovina

Prepared for the project WBC-INCO.NET

Bosnia and Herzegovina



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Executive Summary

The key objective of the document is to provide an overview of research in social sciences and humanities (SSH) in Bosnia and Herzegovina, which is presented in the context of the Steering Platform on Research for the Western Balkan Countries and WBC-INCO.NET, a project funded by the European Community's INCO programme within the FP7. The final aim is to identify research capacities and priorities for Bosnia and Herzegovina with a view of the better research cooperation at the regional level of the Western Balkan Countries and engage in FP7 and other European programmes.

The condition of research and development (R&D), as well as social sciences and humanities (SSH) in Bosnia and Herzegovina can be described as adverse. (Anon., 2010a; Anon., 2010c :5, Anon., 2009)

In 1990 more than 1% of GDP (EUR 8,7 billion) was allocated in science. Also in 1990, more than 87 million EUR (or 170 million KM) was invested in research and development (R&D). It is estimated that more than 20% of that amount was invested in social and humanistic sciences. Solid personnel potentials and strong R&D infrastructure have been built up until 1990. (Anon., 2010c : 5)

Since 1990, numerous R&D units have been put out of business, and the ones in business enterprises (mostly in business systems) have practically vanished. Some industrial institutes widely recognized even outside of BIH (Energoinvest, RMK, UNIS, Rudi Čajavec, Jelšingrad, AIPK, FAMOS, SOKO, INCEL etc.) were selling their own license and technologies on international market. Along with disappearance of those institutions, programs as well as appropriate production capacities were shut down. (Anon., 2010c : 5)

Major expansion of higher education (HE) institutions that are mostly specialized in economics and management, took place in post-war BIH during the transition of economic, social and political system, often with no adequate personnel capacities. (Anon., 2010c)

Activities related to R&D, and even SSH have not been adequately restored. There are certain positive examples (such is School of Economics and Business Sarajevo), which are however result of enthusiasm of individual institutions and not the result of systematic approach of society and business.

Not even the most basic inventory process of available capacities, their legal status, personnel occupancy, means of financing or technical equipment was conducted. Still autonomous R&D units have been left on their own, and some of them underwent the privatization process with no prior consideration of objective necessity to maintain the public status. Expansion of HE institutions resulted in certain lobbying tendencies which have adverse effect on institutions specialized for science and research. (Anon., 2010c)

The most obvious indicators of inferiority of scientific research and research-development sector compared to the surroundings are:

relatively low participation of BIH scientists in international scientific conferences,
their minor and periodic appearance in relevant scientific literature (internationally indexed journals),
inability to organize major domestic scientific gatherings,
feeble publishing business,
lack of scientific literature and periodic in libraries and
insufficient motivation of junior personnel for postgraduate studies and doctoral research, as well as scientific research area. (Anon., 2010c : 5)

Negligence in scientific research area is apparent in the fact that not a single scientifically relevant parameter is statistically tracked and that Bosnia and Herzegovina cannot be found in any international statistical publication pertaining to science and research.

Scientific research as well as SSH in Bosnia and Herzegovina are characterized by:

- insufficient infrastructure to support research;
- insufficient number of qualified and accredited institutions for scientific research and relatively small number of researchers;
- low level and unfavorable structure of finance sources – total sum of funds intended for science is below 0,1% (Republic of Srpska 0,05%) of GDP;
- low competitiveness of scientific papers in number and quality;
- poor mobility of researchers who are mostly concentrated in major centers;
- extremely deficient statistical data about the results of scientific research by the relevant international standards etc;
- low level of transformation of scientific research into social innovation, products with high value added or adequate strategy and politics which would result in resolving the social issues and problems;
- lack of responsibility and engagement in solving the social and other problems;
- According to the „Global Competitiveness Index 2010–2011 rankings (GCI 2010)“ Bosnia and Herzegovina is on the 102nd place of 139 countries (technological readiness at the 85th place; innovation to 120 place, the quality of higher education in 88th place)
- under-developed social consciousness of the importance of scientific research for development of Bosnia and Herzegovina (especially in the Republic of Srpska).

At the same time Bosnia and Herzegovina is a potentially very interesting area and attractive for research within social and humanistic sciences.

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WBC-INCO.NET, an FP7 funded project running from 2008 to 2013 with a total of 29 project partners, aims at the enhancement of the integration of Western Balkan Countries in the European Research Area (ERA).

Its core objectives are to support the bi-regional dialogue on science and technology (S&T), to identify RTDI cooperation potentials and priorities for take-up in FP and other EU programmes, to enhance participation of WB researchers in EU projects, to analyse innovation needs and barriers in the WBC, to exchange information and best practices on innovation policies and to establish closer cooperation between research and innovation. WBC-INCO.NET is being coordinated by the Centre for Social Innovation, Austria.

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Abbreviations

BiH	Bosnia and Herzegovina
DB	District Brčko
EU	European Union
FBiH	Federation Bosnia and Herzegovina
FTE	Full Time Equivalent
GDP	Gross Domestic Product
HE	Higher Education
KM	Convertible Mark
NCPS	National Contact Point System
NRI	Networking Readiness Index
RS	Republic of Srpska
RTD	Research, Technology, Development
SR	Science and Research
SRIS	Scientific Research Information System
SSH	Social Sciences and Humanities
SSI	Strategy of Social Involvement
SSU	Strategija socijalnog uključivanja

Introduction

This report represents one of the activities within the FP7 funded WBC-INCO.NET project (see www.wbc-inco.net). The Ministry of Civil Affairs of Bosnia and Herzegovina participates as a partner in the project. So far, reports pertaining to transport, environment and health have been created. The Ministry of Science of Montenegro is task leader within the Project, with a special focus on the distribution of information related to the preparation of these reports.

Ministry of Civil Affairs of Bosnia and Herzegovina assembled the team that consists of: Professor Ivan Šijaković, Faculty of Economics Banja Luka; Professor Jasmina Osmanković and Ms Vanja Kenjić, School of Economics and

Business Sarajevo; Ms Alma Hasanović, Ministry of Civil Affairs and Ms Amela Delić.

Professor Šijaković puts focus on Republic of Srpska, Professor Osmanković and Ms Kenjić put focus on Federation BiH, Ms Hasanović was in charge for coordination and Ms Delić for organization.

The report was prepared in accordance with the WBC-INCO.NET Template for National Background Reports. Also an additional WBC-INCO.NET questionnaire can be found in Annex to the report.

1 Purpose of the national background report and methodology/summary of the consultation process

Target of the Report is Social Sciences and Humanities (SSH) in Bosnia and Herzegovina.

Timeframe of the research is a post-war period with the special emphasis on year 2010.

Structure and the content of the Report are determined by the WBC-INCO.NET Template for National Background Reports.

According to the Template, the structured Report would enable filling in the void, e.g. preparation of the Report for METRISNET. Bosnia and Herzegovina has not been presented on www.metrisnet.eu yet.

The main method used during the Report preparation was analysis of current and relevant documentation: Dayton Peace Agreement, Dayton USA; Report USAID, USAID; The Lisbon Agenda, 2000.; EURACTIV; Mid-term Development Strategy for BiH 2004-2007 (Srednjoročnu razvojnu strategiju BiH 2004.-2007.); The Law on Science and Research (Zakon o naučnoistraživačkoj djelatnosti); Official Gazette of Republic of Srpska no112/07, Banja Luka (Službeni glasnik Republike Srpske br. 112/07); Frascati Classification of multiannual indicative plan 2008-2010 (Frascati klasifikacija, Višegodišnjeg indikativnog plana (MIPD) 2008-2010.); Strategija razvoja nauke u Bosni i Hercegovini 2010-2015. Strategy for development of science in the Federation of Bosnia and Herzegovina 2011-2021. The strategy of scientific and technological development of the Republic of Srpska 2001-2016. Research and development in 2009; Research and Development Statistics, Republic Institute for Statistics of the Republic of Srpska, Annual press release no. 235/10. Information about the state of science in the Federation. Federal Ministry of Education and Science, Information on EU projects in the field of education and science that are open for BiH, National Development Strategy 2008 – 2013. Social Inclusion Strategy, Raports CB BiH for 2010.

Most of the documents are relevant and current due to the fact that they have been finished in the end of 2010 and beginning of 2011.

The other method used was exploration and research of relevant data basis, Registrar of scientists and scientific organizations in Sarajevo Canton and Federation BiH especially. Furthermore,

analysis of content of official web pages has been used, e.g. of Ministry of Civil Affairs of Bosnia and Herzegovina, Science and Culture Sector (http://www.mcp.gov.ba/o_nama/org_jedinice/?id=31), Ministry of Science and Education of Federation Bosnia and Herzegovina (<http://www.fmon.gov.ba/>), the Ministry for Science and technology of the Republic of Srpska (<http://www.vladars.net/sr-SP-Cyrl/Vlada/Ministarstva/mnk/Pages/Default.aspx>) ministries of science and education of cantons in Federation BiH, Academy of Sciences and Arts BiH (<http://www.anubih.ba/>), NCP FP BiH (<http://www.ncp.ba/ba/page3249599.aspx>), Rector Conferences of BiH universities and scientific institutions, Federal Office of Statistics (<http://www.fzs.ba>), Agency for Statistics BiH (<http://www.BiHas.ba>), as well as Country Report 2010 Croatia and other countries' reports available at <http://www.metrisnet.eu/metris/fileUpload/croatia.pdf> and content available at www.metrisnet.eu.

In the process of preparation, consultations with relevant persons and institutions have been conducted.

Bosnia and Herzegovina is a country with two entities: Republic of Srpska (RS) and Federation Bosnia and Herzegovina (FBiH). FBiH is moreover administratively defined with 10 cantons. District Brčko (DB) is separate administrative unit. Bosnia and Herzegovina is a country with an area of 51.209,2 km² (51.197 km² of land and 12,2 km² of sea). The number of inhabitants is approximately 3,8 million (3.842.942 according to estimates from 30/06/2007). Almost a decade and half after the signing of Dayton Peace Agreement, social and economic situation in BiH has not reached satisfactory level. Although the basic infrastructure has been mostly reconstructed, vast majority of infrastructural objects are still in a very poor condition. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

Negative trends caused with the recession were followed by mild recovery (real economic growth is 0,9%). Nominal value of gross domestic product is 24.750 million KM. In 2010 industrial production went up by 1,6%. (Anon., 2011a: 14-15) According to the Workforce Poll (Anketa o radnoj snazi), working population in BiH amounted to 2,6 million in 2010. 55,4% of this number is inactive population. 1,2 million people in BiH is considered to be actively working. Employment rate went down to 32,5% in 2010 (FBiH 30,4%, RS 36,6%, BD 25,8%). Approximately 315 thousand people are still unemployed which is 3,1% more comparing to 2009. Unemployment rate in 2010 was 27,2% (BD 35,4%, FBiH 29,1%, RS 23,6%) (Anon., 2011a: 22-23).

Average salary in 2010 was 798 KM (FBiH 804KM, RS 784KM, BD 797KM), which represents 1,1% of real fall comparing to 2009. (Anon., 2011a: 24-25) After the major aggravation of fiscal position and the growth of fiscal deficit during 2009, which was result of significant income fall and insufficient adjustments on expenditures side, the government announced series of measures aiming to stabilize and gradually reduce the fiscal deficit in 2010 (reducing the public consumption by limiting the salaries in public sector and revision of social spending). Savings lower than planned were accumulated. Adoption of the budget for 2010 was running late for BIH, FBiH and for RS budget was adopted in beginning of 2011. Indirect taxation income went up in 2010. 4,8 billion KM was collected which is 8,4% more comparing to amount collected in 2009. (Anon., 2011a)

Government income on the state level went up by 2,7% (6,92 billion KM) and expenditures by 3,4% (7,07 billion KM). In the government sector on BIH level, gross deficit was 150,8 million KM (went up by 50,8% comparing to 2009). External debt in 2010 was raised by 19,4% comparing to 2009 and amounts to 6,25 billion KM. The main source of this increase was drawing of three tranches of standby arrangement and increase of the debt level to the World Bank. Total value of foreign direct investment in 2010 was 93,7 million KM which is considerably lower comparing to 358,9 million KM in 2009. (Anon., 2011a) Approximately 20% of population lives below poverty line. Inflationary tendencies in 2010 were moderate and in consistence with the expectations. Inflation rate of 3,1% was recorded. (Anon., 2011a: 18) Deficit on the goods account amounted to 6,35 billion KM, which is 4,7% lower amount than in 2009. Incomes based on compensations of BIH citizens temporarily employed abroad went down by 18,1% comparing to 2009. Income based on interests on deposits and securities went down by 56,3%. (Anon., 2011a : 33-37) (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

Having in mind the context of this project and considering the close causal connection, education / higher education is of utmost importance. The system of higher education (HE) and education in general in Bosnia and Herzegovina (BiH) is based on the constitutional system which defines BiH as a state consisting of two entities: The Federation of BiH (FBiH) and the Republika Srpska (RS), with the Brčko District being a separate administrative unit. The entity of the FBiH consists of ten cantons with each of them having its own educational system (Cantonal Government and Mi-

nistry for Education). There exist state-level, entity-level and cantonal governments.¹ (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

The Dayton Peace Agreement (1995) provided a basis for this deeply divided system of HE. The Canton of Sarajevo is one of ten cantons within the Federation of B&H. Cantonal laws regulate all levels of education. Primary and secondary schools and public universities are financed by Cantonal Governments – specifically the Ministry of Education and Science of Sarajevo Canton. With an estimated population of 4.3 million, B&H has 8 public universities (Sarajevo, Sarajevo-East, Tuzla, Zenica, Banja Luka, Bihać, Mostar-East, Mostar-West) and two public institutions. In addition, during the last ten years many private universities/schools have been established. With regard to degree-based education in the fields of Economics and Management (Business, Business Administration), there are currently 32 higher education institutions (HEI) in B&H. This situation is mainly result of the Constitution (Dayton Peace Agreement, 1995) and inadequate legal regulations governing the quality of those institutions. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

Such conditions resulted in a proliferation of HEIs (from four in the pre-war B&H to eight public universities in the post-war period and a large number of private schools and universities). When privatization and globalization processes entered Central and Eastern Europe, the HE sector

BiH Structure of Higher Education

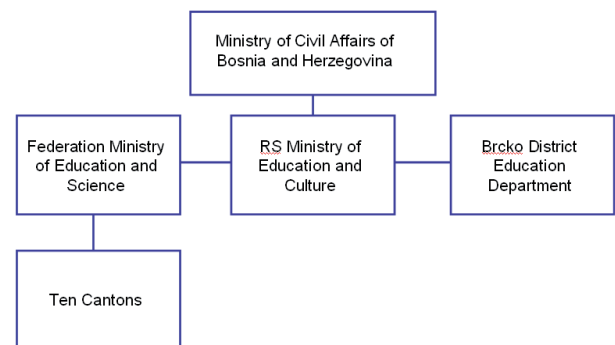


Fig. 1. HE in Bosnia and Herzegovina

experienced unusual growth and a strong diversification of HE programs and institutions. In B&H, the number of HE institutions has grown, mainly as a consequence of the war and fragmented system established in its aftermath. The "growth" of the university system was actually a split into smaller units in some universities.

B&H signed the Bologna Declaration in September 2003 and committed to join the community of HE institutions by 2010. Thirteen legislative bodies are authorized to adopt relevant regulations. Accordingly, the HE system is different in different parts of the country. All institutions must have a license issued by the Ministry of Education in charge of the region in which the respective HEI is located. Some facts regarding state investments in higher education are as follows: 1990 - investments in science 1.5% BDP; 2009 - EU countries are investing about 1,9% BDP with final aim of 3% in 2010. Today B&H invests only 0,05% BDP in HE, that means 30 times less in respect of 1990, and even 60 times in respect of planned 3% in

1. Ministry of Civil Affairs of B&H. Development of education in B&H: state report. October 2008. http://www.ibe.unesco.org/National_Reports/ICE_2008/bosniaher_NR08.pdf

EU countries. Average cost per student is between 300 and 500 Euro per student per year (20 times less than in EU countries). (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

The development of science and technology policy in Bosnia and Herzegovina is an absolute prerequisite in order to rebuild a recognized and effective competence in science and technology in the country, and to develop research activities that may address the needs of BiH socio-economic development. Connecting education, science, research and economy through multi-sectoral approach, contributes to the economic development of the country. Science is considered not only as an asset to rebuild the economy of BiH and a support to public policies, but also as an essential dimension of the culture of the country and also its competitiveness. It is thus important to enhance the public and private sector understanding of science through specific actions. The state policy on science and technology needs to be complemented by actions supported at the level of lower political and administrative entities, depending upon their respective needs and financial means. Future integration of Bosnia and Herzegovina into the European Union requires negotiation at the state level with regard to participation of Bosnia and Herzegovina in the EU RTD programmes, thus enabling the country to become a member of the European Research Area. Supporting Bosnia and Herzegovina to participate in the RTD programmes and initiatives, leads to the reduction of the negative impacts of global economic crisis, by creating new jobs in the knowledge sector. Jobs in the knowledge sectors pay more and are growing at a faster rate than jobs in

other sectors of the economy. Knowledge companies are typically built around new technologies and cutting-edge science. Universities can be sources of new knowledge, through research and development, highly skilled graduates, and other partnering activities with the Universities/ research institutions from the neighboring countries. The future participation in other, aforementioned Community Programmes, other than RTD ones, will also enhance regional cooperation (in particular among Western Balkans countries) through the implementation of joint projects/partnering activities. Participation in the Community programmes will allow potential partners from the Western Balkans countries and the European Union to exchange information, know-how and build on each other experiences. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

The turnover of staff employed in public administration, that should be a running engine of the country's participation in Community Programmes, is a concern and should be addressed in the context of the organizational development process. There are no guarantees of staff retention, but a properly structured organization with the established infrastructure, developed according to the international and EU standards, is the one that is better able to attract and retain staff. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

2 The SSH S&T system in BOSNIA AND HERZEGOVINA²

In 1990 more than 1% of GDP or 87 mil EUR (170 mil KM) was allocated for science. Owing to these material conditions, solid personnel and other scientific research infrastructure was built in BiH. During the war, and due to the events after the war, the number of units specialized for scientific research was severely reduced, and the ones in business enterprises (mostly in business systems) have practically vanished. Some industrial institutes widely recognized even outside of BiH (Energoinvest, RMK, UNIS, Rudi Čajavec, Jelšingrad, AIPK, FAMOS, SOKO, INCEL etc.) were selling their own license and technologies on international market. Along with disappearance of those institutions, programs as well as appropriate production capacities were shut down. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c: 5-8)

Most of the R&D infrastructure is situated in public universities, where most of the scientific research is done. Major expansion of higher education (HE) institutions that are mostly specialized in economics and management, took place in post-war BiH during the transition of economic, social and political system, often with no adequate personnel capacities. These results in extracting the personnel from institutions specialized for science and research as well as in reducing the interest for scientific research. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

R&D sector was omitted from the revival process after 1995. The Dayton peace agreement defined responsibilities of all government levels in BiH. Unfortunately, expressions such as "science", "research", "technological development" are not mentioned in any of the governments' level responsibilities. At the same time, suitable financing of the R&D projects stopped. OECD norm³ that suggests that every university level teacher should spend half of the working hours (so called FTE - Full Time Equivalent) as an educator (teacher, professor, assistant) and the other half as a researcher is realized only in 3%⁴ of all cases. Unfortunately R&D centers in enterprises either exist in a very small number or do not exist at all. In EU countries approximately 60% of the total number of researchers are situated in these centers. Given the fact that in BiH all three governmental levels have fiscal rights, it is reasonable to assume (and is also recommended by UNESCO) that every level should participate in financing the R&D sector in accordance to its own fiscal capacity.

BiH competitiveness in the Information Technologies (IT) area, which should build the basic infrastructure towards to high income country, is very low. According to NRI (Networking Readiness Index), BiH was ranked 89th in 2005 (total of 104 countries were taken in consideration), 97th in 2006 (out of 115 countries) and 89th in 2007.

2. COM. Strategija razvoja nauke u Bosni i Hercegovini: 2010-2015. Duško Jakšić et al. (accessed 25.07.2011.) http://www.mcp.gov.ba/zakoni_akti/strategije/?id=1251

3. OECD/GD (94) 84 Frascati Manual.

4. Izračun utemeljen na BH Universities Annual reports for 2004.

The accurate position of science and organization specialized for science and research in BiH is illustrated by the fact that not even the most basic inventory process of available capacities, their legal status, personnel occupancy, and means of financing or technical equipment was conducted. Certain lobbying tendencies which have adverse effect on institutions specialized for science and research are visible too. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

One of the most obvious indicators of inferiority of scientific research sector comparing with the neighboring countries is insignificant presence of BIH scientists in international scientific conferences and gatherings, in the relevant

scientific literature (internationally indexed journals), in international scientific projects and amongst the authors of internationally reviewed books.

Negligence in scientific research area is also apparent in the fact that not a single scientifically relevant parameter is statistically tracked and that Bosnia and Herzegovina cannot be found in almost any international statistical publication pertaining to science and research. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c)

Social Sciences and Humanities (SSH) are granted with almost 20% of funds allocated for science and research in Bosnia and Herzegovina. (Anon, 2010a)

2.1 The policy framework

2.2.2 Key competencies in SSH research fields

Authority over creation of policy and regulations in BiH, according to the present constitutional solutions, is divided on territorial based principle between several subjects, e.g. governmental levels. Constitutions presently in effect mostly do not specifically treat issues related to the science or scientific research. They only provide general overview of authorities over legal valuation of scientific research and transition of those authorities from higher to lower levels of administration.

State's authority regarding the legal regulation of scientific research is not explicitly defined and this fact provides the conditions for assumed authority (except in case of fulfillment of international obligations). Situation is even more complicated by the fact that equivalent provision is stated in Constitution of FBiH, which brings us to the conclusion that authority for normative regulation of science belongs to cantons.

Additional problem is created by the conduct of most cantons in FBiH which treat authority exclusively as a right and not as a duty to practice. Regulations pertaining to this area are have been adopted by Sarajevo and Tuzla Cantons. There are cantons which have not adopted science regulations yet, and use Law from 1990 (Zakon o naučnoistraživačkoj djelatnosti iz 1990). (Službeni list SR BiH, broj 38/90) is in force. (Anon, 2009; Anon, 2010c: 76-78). In Republic of Srpska scientific research sector and its business have been regulated with Zakonom o naučnoistraživačkoj djelatnosti (Službeni glasnik Republike Srpske, br. 112/07); Zakonom o izmjenama i dopunama Zakona o naučnoistraživačkoj djelatnosti (Službeni glasnik Republike Srpske, br. 13/10); Zakonom o akademiji nauka i umjetnosti Republike Srpske (Službeni Glasnik Republike Srpske, br. 26/93); Zakonom o visokom obrazovanju (Službeni glasnik Republike Srpske, br. 73/10).

It is obvious that, regardless of the generally accepted solutions and definitions, above mentioned legal regulations treat certain scientific issues differently. This is especially relating to the minimal prerequisites, organs and scientific and research titles election procedures. The situation is similar when it comes to fulfillment of minimal preconditions for establishment of legal entities which conduct scientific research. The Law about sciences RS (Zakon o

naučnoistraživačkoj djelatnosti RS) gives a precise definition of types of organizations and their administration in area of scientific research and technological development (institutes of different kinds, scientific technological parks etc.). Outline law about the basics of scientific research and coordination of internal and international scientific cooperation of BiH, defines the special interest in area of science and technology in BiH, basic principles of scientific research, establishment of international and internal scientific cooperation, means of coordinating the authorized institutions specialized for science and technologies, establishment of Science Council of BiH as well as the coordination of information system for scientific research in BiH.

Proposed law suggests that scientific research in BiH should be based on following principles: freedom and autonomy of creation, competitiveness of scientific programs and projects, adoption of international standards and quality measures in science, decentralized establishment and polycentric scientific organization, transparency of the work and its results that can be subject to scientific and academic criticism, ethical scientists and researchers, cooperation with domestic and international scientific institutions, connection with the HE system, intellectual property, human rights and personal and general safety protection, concern for sustainable development and protection of living environment, needs of business and social development, encouragement and acknowledgment of national content. (Anon, 2007; Anon, 2009; Anon, 2010a) (Zakon o visokom obrazovanju, o arhivskoj djelatnosti, o muzejskoj djelatnosti, itd.). (Anon, 2009; Anon, 2010c: 76-78)

2.1.1 The overall SSH policy framework

The BiH Science Development Strategy has a very strong causal connection with other strategic development documents on a state, entity, cantonal (FBiH), regional (RS) and local community level. It is also related with the condition and problems in science and SSH in BiH as well as the trends, possibilities and limitations that come out of regional, European and global environment.

Midterm development strategy for BiH 2004-2007 reviewed in 2006 along with six priorities on general level defines twelve development priorities on a sector level. Science is in this document treated in regards to education, while the information-communication technology is singled out as a separate development priority. It is noticeable, from most of the reports prepared by Direction for Economic Planning of Council of Ministers BiH, that level of implementation of measures that were given in Midterm development strategy is around 60%. (Anon, 2006; Anon, 2009; Anon, 2010a) As for science and technology, it is visible that some of the measures have been implemented only partially or have not been implemented at all.

Within the Development Strategy for the period of 2010-2014 following strategic goals were defined: macroeconomic stability, competitiveness, employment, sustainable development, EU integrations and social engagement. Following defined sub-goals may be of special importance for science: competence of human resources (including the scientists and researchers), scientific-technological and business infrastructure, skills improvement in the labor market, education and training, integration in European scientific and academic area, poverty and social exclusion etc.

With the EU Stabilization and Association Agreement (signed on June 16, 2008), which represents the main instrument in the Stabilization and Association process, radical reforms in almost every area of social and economic life were inaugurated. In Chapter VIII of the Agreement, total of 25 politics regarding the cooperation between BiH and EU were defined. Most of them are directly or indirectly concerning the science, technology and research areas (Research and Technological Development Information Society, Education and Training, Information and Communication etc.). In order to achieve strategic goals in the above mentioned areas, the possibility of obtaining financial and technical support was opened. (Anon., 2009; Anon., 2010a)

Within the Multi-annual Indicative Planning Document (MIPD) 2008-2010, multi-annual planning by main priority areas was defined as follows: Improvement of cooperation in research amongst signing countries as well as EU partners; Reinforcement of research potential in the region; To raise awareness about the importance of research in order to achieve sustainable economic development; Better integration of signing countries into European Research Area; More scientific help in development of regional research strategy; Providing support to the excellence centers. The main priority of the document European partnership with BiH is comprised in the following sentence: "To start with the creation of integrated politics of research work." (Anon., 2008)

2.1.2 The elements of SSH research policy making

Continuous quantitative tracking of implementation of activities within Science Development Strategy in BiH, e.g. of condition and development of R&D in general, demands introduction of standardized approach when collecting, processing and disseminating statistical data, based on international standards, recommendations and positive experiences in this area. (Anon., 2009; Anon., 2010a; Anon., 2010b)

The foundation for planning this process consists of recommendations and goals defined in the Lisbon strategy. Statistical science in BH is organized on a state and entity level. There are three statistical institutions with separate authorities in BiH: Agency for statistics BiH, Federal Office of Statistics and Office for Statistics of RS. Their work is specified with special regulations. Neither of the mentioned statistical organizations continuously and systematically collects data important for depicting the situation and tracking the scientific-technological development process. (Anon., 2009; Anon., 2010a; Anon., 2010b)

Federal Office of Statistics has, during the year 2005, developed the new system of collecting data in area of scientific-research and experimental work for the area of

Federation BiH, which includes methodological directions and forms consistent with "General pointers for statistical research of research and experimental development" (Općim smjernicama za statističko istraživanje o istraživanju i eksperimentalnom razvoju). In Republic of Srpska, this job is performed by the Office of Statistics and Academic and Research Network of the Republic of Srpska – SARNET. Necessary trial researches were conducted that however, did not produce desired results, due to the poor response of scientific institutions and other institutions related to science, research and technology. (Anon., 2009; Anon., 2010a; Anon., 2010b)

The creation of relevant indicators and other instruments pertaining to statistical research of scientific-technological development in BiH is of crucial importance in the process of estimating the situation and progress in this area on both national and international level. Scientific-research information systems should be created in order to achieve systematical tracking, logging and improvement of the science and technology in BiH (NIIS BiH). NIIS BiH should comprise the scientific-research data basis, archives and statistical indicators in accordance with the global and European standards in particular. Scientific-research in-

formation system of RS, FBiH, cantons and Brčko District should, along with NIIS BiH, constitute one, unified system. (Anon., 2009; Anon., 2010a; Anon., 2010b)

2.1.3 Preparatory Activities and National Strategies⁵

The Science Development strategy for BiH 2010-2015 was created and the content of the full strategy can be found on the web page of Sector of Science of Ministry of Civil Affairs of BiH http://www.mcp.gov.ba/zakoni_akti/strategije/?id=1251.

The goals singled out in the Strategy are: (Anon, 2009; Anon, 2010a)

- To ensure that science and technology obtain the leading role in long-term development of the country and with the consensus of all decision makers in the way that science development represents the general public interest.
- Increase in financial spending of BH private and public sector for science and technology based on short-term and long-term defined priorities and plans, and to provide continuous support to innovation, technology transfer and commercialization and implementation of scientific findings.
- Better tracking of science and technology development and its influence on other segments of society based on internationally recognized statistical standards.
- Higher level of participation of BH researchers and institutions in European Scientific and Research Networks and European Research Area (ERA).
- Construction of new HE system and its qualification for competent scientific research work, with the goal to produce new generations of scientists and enhancement of current scientific-research personnel.
- Structural changes in scientific-research systems with the emphasis on cooperative and joint research of universities, scientific/research institutes and industry, e.g. stronger connection between science and business in order to achieve development goals.
- To enable approach to electronic scientific data basis, to connect library systems, support to development of domestic scientific journals, creation of scientists and scientific institutions data basis.
- Development of research infrastructure in accordance with international standards.
- Reinvestment in industrial research in certain number of sectors.

The Science Development Strategy of Federation Bosnia and Herzegovina was also developed with Annexes (Comparative advantages of FBiH for development of R&D, Strategy of Development of R&D in FBiH, Adjustment of criteria needed for obtaining the scientific and academic titles in FBiH, Identification of strategic directions of science, Scientific research in FBiH, Model of sustainable financing of the scientific research and R&D in FBiH, Identification of directions of strategic development of science and technology in FBiH for period 2011-2021, Legal frame for implementation of science development strategy in FBiH and

Methodology, Means of tracking the scientific activities in FBiH). Strategy and annexes are available at the web page of Federal Ministry of Science and Education⁶. By visiting this web-page visitors can get information about the state of science in Federation BiH and Information about the EU projects related with education and available for BiH and preconditions for participation.

The vision of a new scientific research and development system of the Republic of Srpska, which is proposed in Strategy of scientific and technological development Republic of Srpska 2011-2016, is based on:

- Social and political consensus on the necessity of building a society and economy based on knowledge;
- Recognition of science and technological development as a strategic value to the Republic of Srpska;
- Higher education system that produces qualified, skilled, creative and motivated individuals, and acting as a generator of gaining and using new scientific knowledge;
- Adequate and continuous financial investment in scientific research and development system;
- Promotion of innovation that would be competitive in regional and European scale;
- Responsibilities of scientists and research organizations for the overall socio-economic development and active participation in making important decisions in contemporary society;
- Legal framework and norms of conduct in accordance with the development plans and requirements.

Full strategy content can be found on the web page <http://www.vladars.net/sr-SP-Cyrl/Vlada/Ministarstva/mnk/PAO/Strategije/Pages/default.aspx>

The question of science and technology is included in Development Strategy of BiH 2010-2014. This document is available at the website of the BiH Directorate for Economic Planning⁷. The strategic goals related to macroeconomic stability (area, social sciences, economy), competitiveness (competence of human resources, scientific-technological and business infrastructure or area of social and humanistic sciences), employment, sustainable development, EU integrations (integration into academic and scientific area, mobility), social inclusion (area for SSH). Each of these strategic goals is either directly or indirectly strongly related with humanistic and social sciences.

Strategy of Social Inclusion (SSU) was prepared, with sub-goals related to social politics and employment, improvement of position of families with children, education improvement, health protection, retirement politics improvement and improvement of position of persons with disability open the area for research related to SSH.⁸

5. Council of Ministries. Science Development Strategy in Bosnia and Herzegovina: 2010-2015. Duško Jakšić et al. (accessed 25.07.2011.) http://www.mcp.gov.ba/zakoni_akti/strategije/?id=1251

6. http://www.fmon.gov.ba/index.php?option=com_docman&task=cat_view&gid=48&Itemid=132

7. http://www.dep.gov.ba/razvojni_dokumenti/razvojna_strategija/Archive.aspx?%20Template%20_id=71&pageIndex=1

8. The document is available at http://www.dep.gov.ba/razvojni_dokumenti/socijalne_ukljucenosti/Archive.aspx?template_id=71&pageIndex=1

The great importance that science and technology (S&T) has in Bosnia and Herzegovina is stressed in every international forum, especially when adopting documentation EU-Balkan countries, Action plan in S&T 2003, and on every meeting and conference that includes creators of S&T politics for Western Balkan and EU countries. In accordance to this BiH has recognized development of S&T as one of its priorities. Restoration of effective research system and technological development in BiH demands adoption of Strategy with full support given by all participants involved in its making, especially support from decision makers on all governmental levels in its implementation phase. This is the only way to achieve the prosperous future "triangle" for one country: education – science – business, with positive involvement of the government (politics) that works as an accelerant. (Anon, 2009; Anon, 2010a; Anon, 2010b)

Bosnia and Herzegovina, its history, society, culture and economy is a convenient area for research by social and humanistic sciences. This convenience and/or attractiveness comes as a result of the fact that BiH belonged to the specific social-economic and political system from 1945 until 1990.

Researchers have documents but also witnesses and participants at disposal. Scientific attractiveness of the years between 1990 and 2011 is determined by the fact that this particular period is a period of transition from one to another political, economical and social system, the period of privatization and transition from war to post-war times, the period when the independent country was formed.

2.2 Overview of SSH Research Activities

SSH research in BiH is determined by European projects, calls and support to certain research topics, as well as bilateral support of some countries and their scientific foundations (for example Swiss Science Foundation), needs and requirements of public, private and civil sector.

Main research activities within SSH are as follows:

- Building administrative capacities;
- Development of Human Resources in R&D;
- Revitalization of Institutes and R&D Capacities;
- Building ICT infrastructure;
- Setting up Regional R&D priorities;
- Evaluation of project outcomes and Diffusion and dissemination of results.

2.2.1 SSH Research Projects

Topics that dominated within SSH are related with research of causes, course and consequences of war, territorial organization, regionalization, administrative division of country, strategic planning, urban planning, methodology of strategic development planning, research needed for creation of state's development strategy, development strategies on entities levels, cantonal and local strategies of development, research related to physical planning on entity and cantonal levels, research related to protection of certain natural, cultural and historical treasures, demographic research, research related to the development of cities, rural development and development of tourism, environment and all educational levels (curricula, ECTS system, legal frame etc.); moreover: research pertaining to certain business projects and to process of association to EU (RIAs). Research was realized with the help of public funds (budget, funds from ministries of science and education, ministries of environment and tourism, cantonal ministries of economy etc.) from international and European funds in particular, programs and projects. Research was also financed by the business sector in a very small percentage (economic research).

The latest EU project EUEXPRO II which pertains to strategy and politics of promotion of export in BiH sets up the priorities for export promotion for: 1) sector of metal and components, 2) energy, 3) food production and packing industry, 4) industry of wood processing, 5) construction industry and related services and 6) tourism. The selection

of sector priorities can be a useful phase while defining the R&D priorities. However the activity cannot be finished with that. In this study, R&D socio-economic goals defined by EU politics are used as a basis for priority forming. They are, with certain corrections acceptable for FBiH (corrections are related with omission of certain research areas such as research of the land, space and defense).

Over the time, the European Union has developed a wide spectrum of external assistance programmes, which has resulted in the preparation of complex set of more than thirty various legal instruments. A need to simplify coherency and improve uniformity, as well as to achieve better results and higher influence with available funds has resulted in the fact that the European Union proposed a new structure for external activities in September 2004. There are six proposed instruments of external relations that are applied between 2007 and 2013, including also the instrument of pre-accession assistance - IPA. IPA has the goal to facilitate the access of candidate countries and potential candidate countries into the European Union at the crossing points of external support and internal politics. IPA is the instrument which is directly related to access and which shall enable that all requirements of accession process are fulfilled, especially when it comes to priorities, monitoring and assessment. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c; Anon, 2010d; Anon, 2010e; Anon., 2010f) The IPA components include: Assistance in Transitional and Institutional Building Process,

Cross-border Cooperation, Regional Development, Human Resources Development, and Rural Development. IPA support to potential candidate countries will be focused on institutional building, especially on strengthening the political aspects of Criteria from Copenhagen by improving administrative and judicial capacities and by supporting certain harmonisations with the *Acquis Communautaire*. Also, IPA regulations predict promotion of economic and social development. In addition, potential candidates are able to use funds for institutional building in order to build their capacities and to make sure that certain programme and manager structures are ready to start preparing for managing structural funds at the moment they become candidate countries. It has already been established that all Western Balkan countries are potential candidates, so in the process of designing IPA regulations no exceptions have been made when it comes to the date of improving status or accessing any of the countries. Regulations are designed in a flexible manner so that they are adjusted to these events, when they happen, in accordance to legal procedures regulating such improvements. The duration of the processes leading a state closer to the EU depends on the speed of political, economic, judicial and administrative reforms carried out by the state. The EU supports these reform processes not only through financial assistance but also through intensive political advising and dialogues. Obviously, the state which carries out reforms, before all, is responsible for reforms and it does not depend, exclusively, on available donor's support. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c; Anon, 2010d; Anon, 2010e; Anon., 2010f)

Available programmes of Cross-border and Trans-national Cooperation are BiH – Croatia, BiH – Montenegro, BiH – Serbia, PA Adriatic Programme, South East Europe Programme and MED Programme.

European Union Framework Programmes (FP) are the main instrument for financing scientific research in Europe. At

the European Commission proposal, the Council of EU and the European Parliament adopt framework programmes; their duration is from three to seven years and the last year of previous program is overlapped with the first year of new program. The first cycle of framework programs started in 1984. The Programmes provide assistance in organization of cooperation between universities, research centers and industry (including small and medium enterprises), as well as provide financial support to their joint projects. In distinction from previous framework programs that have lasted from three to five years, FP7 lasts for seven years as of 1 January 2007 to the end of 2013. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c; Anon, 2010d; Anon, 2010e; Anon., 2010f) By its contents, organization and method of implementation, FP7 will not be a pure copy of previous framework programmes, but a basis for support to activities outlined in the Lisbon Strategy. FP7 has been designed to improve success comparing to previous programs, which have been aimed at establishment of the European Research Area – ERA and development of European economy based on knowledge. By the Agreement between the Council of Europe and European Parliament budget amounting to € 50.521 billion has been adopted. (Anon, 2009; Anon, 2010a; Anon, 2010b; Anon, 2010c; Anon, 2010d; Anon, 2010e; Anon., 2010f) FP7 has been divided into 4 specific programmes: CO-OPERATION – establishment of the European leadership in ten thematic priorities through financing scientific researches implemented jointly by organizations regardless of state borders, CAPACITIES – establishment of top-level infrastructure for European researchers, IDEAS – autonomous European Research Council for strengthening the European science and PEOPLE – strengthening of human resources within European research. BIH is associated to FP7 and actively follows also the developments towards the next programme – Horizon 2020 – for the financial period 2014 to 2020.

The list of SSH projects according to information listed in the Registrar of the National and University Library of BiH (NUB):

Sava river Basin: Sustainable use, management and protection of resources – SARIB
Continuous computing solutions for e-business continuity
Education of teachers about epilepsy
Identification, demand and giving back cultural-historical and artistic objects from Bosnia and Herzegovina, took off by the foreign countries during the centuries passed
Interference in Mother language(Bosnian, Croatian, Serbian) of Pupils Returnees from the Receiving Countries
Possibilities of application of distance learning in medical curricula
Strategy of building Bosnia and Herzegovina image as a determinant of country's economic development
Strategy of Sarajevo marketing and promotion as a determinant of successful implementation of the strategy for reconstruction and development of Sarajevo Canton until 2015
Market Orientation-factor of Business Development
High technology - transfer of know-how and implementation, which special consideration paid to analysis and identification of GIS/GPS technologies
Introduction of Sustainable Management on Mountain pastures with the Aim of the Autochthonous Cheese Production
Implementation of GIS software package in presentation of religious heritage in Sarajevo city area
The standard new štokavian dialect and the language situation in Bosnia and Herzegovina
Modern Interpretations of Literature and the XX Century Literary Theory and Criticism (methods and schools)

Source:<http://registar.nub.ba/pls/htmldb/f?p=110:4:343334343043166520>
<http://registar.nub.ba/pls/htmldb/f?p=111:4:13314336196169498820>

It is not full list projects. Some institutions publish a list of projects on their websites only.

2.2.2 Key competencies in SSH research fields

The best indicator of the science and technology condition in Federation BiH and BiH is measured by the number of papers published in referent journals on population of 100.000 inhabitants, number of patents and quotations by scientific articles authors. Statistical research show that the number of scientific papers published in BiH in 2000 was 3,2 times lower comparing with the year 1990. In 1990 BiH had 1,95 published journals and only 0,61 in 2000. Comparing to the other countries in region, BiH is in even more adverse position. The situation has not significantly improved in last few years. (Anon., 2010c: 20-22)

Table: Number of BH authors' papers published in journals in indexed data basis:

Year	Number of papers
2005	142
2006	163
2007	362
2008	396
2009	595
2010	498

Source: Anon., 2010c : 20-22

By looking into the number of published papers it becomes obvious that BiH, comparing to all other countries of South-Eastern Europe, is in the last place in the areas of science and technology. Data about quotations of BH researchers in relevant literature could not be taken in consideration, since relevant sources of information do not exist. (Anon., 2010c: 20-22)

Due to the fact that the number of public HE institutions in Federation BiH was doubled and was not followed by an adequate increase in the number of qualified teaching staff, teaching staff generates high level of internal mobility by engaging in other public and private HE institutions in BiH. 2.608 full-time and 156 part-time teachers work in public universities in Federation BiH in year 2009/10. A major problem lies in the fact that majority of teaching staff has no chance nor interest for serious engagement in scientific research as a result of everyday guest lecturing in different universities in BiH. This also results in poor communication with students who are deprived of sufficient professors' attention and involvement in scientific research.

The number of scientific researchers in independent institutes and other research units in BiH is remote comparing to the academic community. Today, it is estimated that only 10% of total number of scientific researchers in the academic community are employed in these organizations. (Anon., 2010c: 23-25) The major problem in the relation between the education system and the labour market is incoherent and obsolete knowledge gained during the studies, as well as catastrophic devaluation of knowledge acquirement criteria. Extremely high unemployment rates support this statement clearly.

Most of the papers published in international journals pertain to medicine (40%), engineering (20%) and natural sciences (18%). Only one fifth of papers published pertain to SSH. (Anon., 2009; Anon., 2010a; Anon., 2010b)

2.2.3 SSH Research Infrastructure

Research-development infrastructure (R&D) for all sciences including the SSH has not reached a satisfactory level. Prior to 1992, R&D activities were primarily conducted within major industrial systems and their research departments, and in lower percentage in HE institutions (mostly in technical faculties). R&D sector is the only social area which remains unrenowned in post-war times. (Anon., 2009; Anon., 2010a; Anon., 2010b)

Most of the existing R&D infrastructure is situated in public universities and that is where almost all scientific research in BiH is conducted. Research institutes in most of the cases do not have necessary material-technical prerequisites at disposal nor human resources for the business they are registered for. (Anon., 2009; Anon., 2010a; Anon., 2010b)

Human resources in R&D in BiH: in public universities in FBiH approximately 2.271 full time teachers and 201 part time teachers were involved in teaching process in 2007/2008. 1.434 full time teachers and 1.173 part time teachers were involved in teaching process in RS according

to the data for the 2006/07 academic year. This shows that in BH, there are approximately 35-40 students on every full time employee which is below the average for developed universities of EU (the average is 12-20 students on every employee). Estimates are that only 10% of researchers are involved in these organizations comparing to the academic network in BiH. According to the data collected by the Agency for statistics of BiH percentage of highly educated population is around 6,7% which is more than three times less than European average that amounts to 20%. Besides for that, this information reveals the fact that adopted policies regarding the education and science are not implemented in preferred pace. This means that the development of competent human resources in BiH is not realized so far and therefore not providing the desired results. (Anon., 2009; Anon., 2010a; Anon., 2010b)

The total number of employees in research and development in the Republic of Serpska (all sectors and all activities) to total workforce is 1273rd. In relation to the total workforce (431,000), it is about 0.3%, compared to the total number of employees it is about 0.4%. (The total

number of employees was 329 000). Number of employees in the R&D in the business sector and universities is around 30% in the business sectors and about 60% in universities. Female researchers are 35.6% of the total number of researchers (829). The average age of researchers is about 45 years. Researchers in the RS are constantly or periodically active: 196 researchers with a university education without academic titles (including over 100 women), 633 researchers at the PhD or masters (of which about 200 are women). These are about 829 researchers or about 0.25% of total employment in the RS. From 2576 teaching staff employed in higher education institutions 650, or only one quarter (25%) deal with research in the RS.

Based on the records of the RS Ministry of Science and Technology, it can be concluded:

- In the period 2008 - 2010, at international scientific meetings outside the RS, Bosnia and Herzegovina and their works exhibited a total of 457 researchers from the RS, of which 212 are related to the meetings in the former Yugoslavian republics, and 245 in other foreign countries. A number of researchers have been several times at international conferences, so it may be that approximately 350-400 individual researchers from the Republic of Srpska in the observed three-year period, reported their work at international conferences abroad.
- The implementation of research projects co-financed by the Ministry of Science and Technology, involves about 450 researchers (this figure refers to individual persons and not to the total number of researchers who participated in the implementation of projects in the period 2008 - 2010. Because a number of researchers in the three year period participated in the implementation of several projects). In the period 2008 - 2010 the research projects in social sciences and humanities were the following: Social Sciences - Economic planning and development, economic policy, entrepreneurial economy, methods of educational work, special education and rehabilitation, applied pedagogy; Humanities - general studies language / specific languages, general studies literature, specific literature, old ages history, history of the Middle Ages, history of the new century, history of modern ages.

Introduction of Internet in BiH in 2006 amounted to 17,7% of the population, e.g. less than 800.000 people used In-

ternet. This percentage is similar to a global average in 2006, when approximately 16,7% or 1 billion people used Internet across the world. (Anon., 2009; Anon., 2010a; Anon., 2010b)

Library services (NUB) – library database COBIS (the Co-operative Online Bibliographic System and Services) was implemented as well as REGISTRAR of scientific institutions, scientific staff and projects and infrastructural investments. REGISTRAR is an online application that encompasses all data about researchers and research organizations in FBiH. The number of BH indexed scientific journals (ISI-Web of Science, MEDLINE, EBSCO academic data basis, CAB International, Scopus, Zentralblatt, MATH, Index Copernicus, MLA International Bibliography) is 30. Besides for that 22 BH journals are referred on CEEOL portal (Central and Eastern European Online Library). (Anon., 2009; Anon., 2010a; Anon., 2010b)

Provided support to research organizations in the RS: National and University Library of the Republic of Srpska, Academic and Research Network of the Republic of Srpska - SARNET, Institute for Intellectual Property and RS Statistical Office.

There are also agents involved in the research conducted in the Republic of Srpska, organizations that have a „mediating“ role between scientific research and development and production work. One of the most important intermediary organizations is the Republic Agency for Small and Medium Enterprises – RARS.

Innovation centers and scientific parks - Federation Bosnia and Herzegovina government has by the end of 2008 accepted the Information about the development and limitations in establishment and work of technological parks in Federation BiH. It was stated that in FBiH operates Technological park Mostar and Technological park Tuzla, while the establishment of Technological park Zenica is in its final phase. Government emphasized the importance of technological parks for integration of different socio-economical and political factors and with its conclusion obligated the Federal ministry of development as well as Federal ministry of science and education to continue with support activities for te development of technological parks. Republic of Srpska has within the Law predicted the possibility of establishing scientific-technological parks and defined the goals of their work. (Anon., 2009; Anon., 2010c : 5-20, 63-68)

2.3 Key Drivers of SSH Research

The Ministry of Civil Affairs of BiH is the state authority responsible for science at the state level. The Department for Science and Culture of the ministry at the state level is responsible in the field of science for the following: Coordination of activities and harmonisation of plans of entity authorities (in the FBiH & RS); and definition of the international level strategies. NCP FP BiH system is part of the Sector for Science and Culture of the Ministry of Civil Affairs of Bosnia and Herzegovina. Apart from the Headquarters, located in the Ministry, there are 8 focal points at all public universities in Bosnia and Herzegovina. The thematic NCP's for each 10 FP7 themes have been appointed, as

well as the country representatives to Programme Committees. The NCP responsibilities include dissemination of information on FP7 in general, as well as specific issues on calls published, organisation of info-days, seminars, trainings and workshops, maintaining the web-site (www.ncp-fp.ba), maintaining the clients' data-base, providing partner search, etc., in order to raise the quality and the quantity of participation from Bosnia and Herzegovina in FP7. Ministry of Civil Affairs of Bosnia and Herzegovina is the member of COST and has a National Information Point position in EUREKA. At the state level, the Framework Law on Scientific and Research Operations and Coordination of

the Inter-entity and International Scientific and Technical Cooperation was adopted in May 2009.

The state level Strategy on science development in Bosnia and Herzegovina and the Action Plan has been adopted in December 2009. Ministerial Conference on Developing Regional Research Strategy or the Western Balkans was held on April 24, 2009 in Sarajevo, under the auspices of the Czech EU Presidency and organised by the Regional Cooperation Council (RCC). This regional strategy document that was presented at the Conference has been developed through regional cooperation of the relevant ministries and will be financed under the Multi-beneficiary IPA.

The Ministry of Science and Technology of Republic Srpska and the Ministry of Education and Science of Federation of BiH are responsible for science development at the entity level. Most of the cantons have their own ministries that are dealing with those issues.

The Directorate for European Integration acting under the direct authority of the Chair of the Council of Ministers (Prime Minister) was established in October 2002 as a successor to the Ministry of European Integration. One of the Divisions under the Directorate for European Integration is the Division for the Coordination of EU Assistance with the task of coordinating the programming, implementation and monitoring of the EU assistance programmes.

The most important participants in scientific research are;

- academies of science with appropriate institutes (centres),
- universities (with institutes and faculties)
- institutes in public-private or private-legal institutions or enterprises, research centers or institutes within businesses. (Anon, 2009; Anon, 2010a; Anon, 2010b, Anon, 2011, Anon,2011)

Academy of science and arts of BiH – ANU BiH as The Academy of Sciences and Arts of Bosnia and Herzegovina arose out of the Scientific Society, founded in 1951, by the decision of the Assembly of the People's Republic of Bosnia and Herzegovina, the highest state authority in the country, on the formation of the Scientific Society of Bosnia and Herzegovina. The Scientific Society continued to operate as the highest-level institution concerned with science until the Assembly of Bosnia and Herzegovina passed a Law on the Academy of Sciences and Arts of Bosnia and Herzegovina in 1966. The Academy of Sciences and Arts of Bosnia and Herzegovina is charged, pursuant to this Law, with responsibility for the overall development of science and the arts, with organizing scientific research and arts-related events, with publishing papers written by its members and associates, and in general with the state of science and the arts and their development in Bosnia and Herzegovina. It consists of 54 members – 41 regular and 13 associate members. Members of ANU BiH are elected amongst the most respected creators of science and arts. (Anon., 2010c: 10)

National university library BiH - NUB BiH is working on preservation of documentary heritage of BiH and provides different library services to users. Library contributes to the enhancement of academic and scientific research and work in HE institutions, through creation of library network and information system at universities. Continuous

improvements are noticeable in the NUB BiH that ensure development and adequate support to BH academic community through quality infrastructure and relevant information. (Anon., 2010c: 10)

The National Museum of Bosnia and Herzegovina was founded in 1888 and is the oldest of the modern cultural and scientific institutions of Western type in Bosnia and Herzegovina. Over the years these disciplines have been rationalized into the present three departments: Archaeology, Ethnology and Natural History. Since the outset, considerable attention has been paid to the educational and cultural function of the Museum and today it works as scientific, museological, and pedagogical research institution. It collected the large portion of cultural and national heritage of the country and its people. The most significant display in Museum is Sarajevo Hagaddah, traditional Jewish book brought to Sarajevo by Sefards after their exile from Spain. Three doctors of science and 8 masters of science are full time employed in the Museum. (Anon., 2010c : 11)

Institute for Language was established in 1972. It is a state owned institution and conducts activities of public interest. It is financed from the Budget of Canton Sarajevo ever since 1996. Two doctors of science and one master of science are employed at the Institute. (Anon., 2010c: 11)

The above mentioned institutions are of state significance and have not solved their status yet. Within their area of work they exclusively or partially conduct scientific research related to a particular scientific area (Anon., 2010c:11).

Six public universities are registered in BiH: University of Sarajevo, University of Tuzla, University of Mostar, and University Džemal Bijedić in Mostar, University of Bihać and University of Zenica with total of 63 faculties and 5 academies. According to statistical data collected by Federal Office of Statistics, 64.840 students were enrolled in public universities in Federation BiH in academic 2009/2010.

Thorough reform is taking place at BH universities, in order to bring BH HE closer to European HE area. Public universities participate in EU funded projects through Tempus, Erasmus Mundus and FP projects (FP6 and FP7) and they are also involved in the NCP - (National Contact Point) network for framework programmes (NCP FP BiH). (Anon., 2010c : 11-12)

Institutional beginnings of HE in Sarajevo (University of Sarajevo) are related to 1531 when Gazi Husrev Bey established the Hanikah, higher school of Sufi philosophy. In 1537 the institution that taught Islamic sciences was also established. Three major disciplines of classic (catholic) European universities were taught: theology, law and philosophy. University library was functioning too.

The School of Economics and Business in Sarajevo (SEBS) was established in 1952 as the Faculty of Economics. Its first class consisted of 105 full-time and 129 part-time students. SEBS has the longest tradition and is the largest educational institution in Bosnia and Herzegovina. It is a leading institution in the BH higher education system in

the creation and dissemination of knowledge in the fields of economics and business administration. Of particular significance is the continuity of the school's operations throughout the past 58 years. Even amid the heaviest shelling and warfare during the aggression against Bosnia and Herzegovina from 1992-1995, teaching did not cease, owing to the enthusiasm and dedication of both employees and students. The School managed to keep the majority of its faculty members even during the most difficult periods of its history. Over the last fifty years, the School has been continually developing and implementing numerous programs leading to the formation of highly-educated and creative professionals capable of assuming managerial and leadership roles in their professional careers. Its main goal is to adopt and apply all current trends in business, economics and education to adapt to our rapidly changing, competitive environment. As of 2009, 15.154 students in the four-year program, 823 students in the three-year program and 3.543 students in the two-year program have graduated from the School. 569 applicants acquired a Master's Degree, while 187 doctoral dissertations have been defended. Endeavouring to make its curriculum and syllabus as modern as possible, as well as to intensify steps towards the internationalization and international recognition of its degrees, the School was the first in Bosnia-Herzegovina to adopt and implement (during the 2001/2002 academic year) a curriculum based on the European Credits Transfer System – ECTS.

An appreciable level of cooperation has been achieved with elite schools of economics both in Europe and around the world, providing students with a wider array of choices, and allowing their own independent influence on the development of the programs in which they participate. The second step in implementing the ECTS-based concept of study at the School started in 2005 with the introduction of the "3+2+3" system. The School introduced its first generation of graduates, which is based on an ECTS concept, in October 2008. SEBS is the only educational institution in B&H that has been a member of European Foundation for Management Development - EFMD and member of The Association to Advance Collegiate School of Business – AACSB. SEBS has been granted the accreditation by the Austrian Agency for Quality Assurance. At present, SEBS is the only faculty in Bosnia and Herzegovina that holds a European accreditation, which means that this institution and its diplomas will be recognized in the European Education Area. SEBS also introduced quality management system in accordance with ISO 9001:2008. In 2009, SEBS gained certification by Bureau Verities. Introduction and certification of Quality Management System by ISO Standard verifies SEBS as a successful institution in development and implementation of academic programs for 1st, 2nd and 3rd study cycle of higher education and non-academic degree programs, courses and training according to the Life Long Learning concept. In 2009, SEBS was rewarded with EDUNIVERSAL Palmes Certificate. This certificate highlights the growing success of this institution on an international scale, and puts SEBS in the 1.000 best business schools worldwide. According to Webometrics, world universities' ranking system of the WEB activities, SEBS, was ranked 390th, among the top 400 business schools in the world. (<http://www.efsa.unsa.ba/ef/en/about-us/about-the-school>)

Faculty of Philosophy in Sarajevo Centre for Scientific Research and Professional Activities (NIRSA CENTRE) Pursu-

ant to the decision of the Academic Council of the Faculty of Philosophy in Sarajevo from 2010, the Centre for Scientific Research and Activities (hereinafter NIRSA Centre) has been established and made operational. Until the necessary conditions for employing the Centre's Secretary are created, the administrative and technical services of the Faculty of Philosophy shall support the work of the Centre. The Centre is intended to function as a centre of excellence - institutional platform for scientific research and activities. The Centre for Scientific Research and Activities of the Faculty of Philosophy (NIRSA Centre) shall provide employees of the Faculty of Philosophy in Sarajevo with an intellectual, technical, communication, information, IT, reference and administrative platform for conducting scientific research and activities. This will create conditions for the Faculty of Philosophy in Sarajevo to function independently and in an organized manner, not only in teaching activities, but also in activities of scientific research. The establishment of the NIRSA Centre at the Faculty of Philosophy provides its employees with a unique environment for conducting scientific research and activities and strengthens the basis for the establishment of leadership (academic excellence) in the BiH academic environment. In terms of organization and material resources, the NIRSA Centre should integrate all staff resources, all fields of scientific research and all forms of scientific activities and should also support all aspects of their work. As a result of these activities of the NIRSA Centre, the Faculty of Philosophy in Sarajevo shall receive an open platform for an institutional, interdisciplinary and multidisciplinary approach to scientific research and activities, as well as an opportunity for designing integrated projects and networks of excellence. The Faculty of Philosophy in Sarajevo, through the work of this organization, shall be recognized by scientific research institutions in the EU, Southeast Europe and the region as a capable and valid partner in international academic communication. This act shall also establish an internal infrastructure for researchers at the Faculty of Philosophy in Sarajevo. Cooperation, ideas, people and capacities for scientific and research activities shall all be integrated at a single place and on a single platform.

The Head of the NIRSA Centre shall prepare a development project for equipping the Centre and shall also submit applications of the Faculty of Philosophy in Sarajevo for competitions announced by the FBiH Ministry of Education and Science and the Sarajevo Canton Ministry of Education and Science in 2011 in order to ensure funds for equipping and developing the NIRSA Centre. The NIRSA Centre is planned to include the following working forms:

Institutes: Institute for Theoretical, Analytical and Applied Research in Social and Humanistic Fields, Institute for Linguistical Researches, Institute for Research of Literature, Institute for Cultural Studies, and Education Centers: Scientific Research Incubator (ZINK), Sarajevo Academic Linguistic Circle (SALK), Center for Organization of Psychological Investigation and Consultation, Center for Permanent Academic Improvement and Life-Long Learning, Center for Linguistic Education, Class Teaching, Exams and Certification at University of Sarajevo, Center for Professional Services of Translation, Interpretation and Text Lectoring.

Infrastructural Support: Library-Information Support, IT-Communication Support, Administrative Support, Publi-

shing Activities Support. The NIRSA Centre shall function in accordance with European standards as a centre of excellence for humanistic and social sciences. By integrating all the relevant aspects of scientific research activities, the CENTRE wishes to position researchers from the Faculty of Philosophy in Sarajevo as leaders in this field and to be recognized as a centre of excellence in BiH and the region. By doing so, the Faculty of Philosophy, as a scientific research institution, will contribute to the establishment of the European Research Area (ERA) and the development of social sectors based on knowledge. In order to achieve these objectives based on standards in the international and European scientific and academic community, the NIRSA Centre, being an open academic platform, shall integrate the following aspects:

The NIRSA Centre shall bring together a critical mass of scientists, researchers and experts in the fields of social and humanistic sciences who are capable of preparing integrated projects and applying consortiums of methodologies necessary for interdisciplinary research.

88 PhDs, 43 masters of science, 30 scientific associates-assistants and 15 lecturers shall cooperate through the NIRSA Centre. The NIRSA Centre will bring together a total of 170 employees whose academic work in the field of humanistic and social sciences represents the basis for national research projects, as well as transnational projects implemented through collaborative projects, networks of excellence, coordination and support activities, research at the limits of science, support for training and advancement of researchers' careers and research aimed at supporting specific groups. The NIRSA Centre will allow young researchers-assistants who lack the sufficient number of hours in teaching to put in additional hours and achieve a full teaching load by engaging in scientific research and taking part in the development of the Centre's platform based on their specific fields of expertise.

The NIRSA Centre shall work on structural activities concerning scientific research and networking of people, ideas, projects and capacities. This shall provide conditions for designing integrated projects (interdisciplinary and multidisciplinary projects); mobility of researchers by actively supporting outgoing international exchanges, incoming international exchanges and partnerships between international research organizations in Europe and Bosnia and Herzegovina.

Premises provided to the NIRSA Centre (room nr. 8/ ground floor) shall act as an office from which the Head of the Centre and the Secretary, together with young researchers-assistants, scientific advisors, expert associates and assistants shall organize the functioning of the system for supporting scientific research and activities.

The NIRSA Centre shall function as: a communication hub for coordination and planning; a place for discussion between teams in interdisciplinary projects; a place for discussion and signing agreement between the project teams of the Faculty of Philosophy in Sarajevo and foreign partners; a space for educating research teams by the project leaders, or organizations (ministries, foundations, clients requesting the research) announcing competitions; a space for presentations and preparation of project do-

umentation; a place for depositing electronic applications for projects; a terminal for official application of projects; a space for the presentation of scientific research programs offered by relevant state institutions, foundations and organizations to the academic community; a place for negotiating and closing contracts on the provision of education services by education centers that shall be organized as part of the NIRSA Centre; an audio and video room for holding internet video conferences between participants in projects via video link, i.e. internet consultations with partners in European and regional, i.e. national and multinational projects.

The NIRSA Centre shall function as a reference centre for library units for NIRSA Centre associates (who are also the teaching staff and associates in the teaching process); a reference centre for programs based on which the project teams and individuals shall design project documentation; a terminal for accessing scientific and reference databases which are accessible only through computers of a research institution; a terminal for installing and the use of translation software; a terminal for the use of IBM SPSS or statistical software in empirical research in the field of social science; a terminal for gathering, storing and using electronic books; a database on scientific activities in the field of social and humanistic sciences; a database on scientific research competitions in BiH, Europe and the world.

To support scientific research and activities performed by employees at the Faculty of Philosophy in Sarajevo the NIRSA Centre shall integrate various forms of support, people and capacities that have so far remained outside of projects in a financial and organizational sense. Support provided by employees of the administrative and technical services shall now become more visible, not only in organizing teaching, but also in organizing support for scientific research and activities. In addition to scientific research institutes and education centers, infrastructural units will also function as part of the NIRSA Centre.

The NIRSA Centre's Infrastructural Unit shall include the following forms of support:

- Library-Information Support – where researchers and research teams shall be able to establish and use specific databases, use information, search scientific databases, access printed reference material, access electronic reference compilations, etc.
- IT-Communication Support - where researchers and research teams shall be able to process data relevant for their research and research projects, use statistical software, use communication technologies for holding video conferences, disseminate research results, etc.
- Administrative Support – where researchers and research teams shall be able to receive assistance concerning documents necessary for submitting applications for projects, the administrative-financial framework of scientific research projects, logging and registration of projects, planning space and time for education projects, financial framework for commercial projects in education centers, etc.
- Publishing Activities Support – where research results will be published. http://www.centarnirsa.ba/documents/centar_nirsa/The%20NIRSA%20Centre.pdf

The Faculty of Criminal Justice Sciences Sarajevo was founded in 1993 and ever since its mission is education of

future law enforcement officials who will be contributing to the establishment and maintenance of the rule of law in Bosnia and Herzegovina by performing various tasks within an ample net of institutions that are fighting crime and other anti-social activities in the country acting in accordance with the principles of legality and professionalism. Today, although the process of recruitment of our students into public services was subjected to numerous, primarily political obstacles, our former students keep proving their knowledge, professionalism and expertise while working in local police forces, cantonal police forces, entity police forces, state police forces (SIPA, SBS, Indirect taxation office, etc.), in customs services, in private security sector, etc.

The Faculty is convinced that Bosnia and Herzegovina is mature enough to realise that proper reaction to crime and crime related phenomena nowadays needs specific, crime, law and human rights related knowledge rather than any kind of university based knowledge one can get elsewhere. It means that Bosnia and Herzegovina needs young, professional, educated law enforcement officials who will be able to tackle all the problems caused by criminal activities in the country both in terms of its preventions and in terms of its repression. Therefore, since the Faculty is absolutely aware of the fact that no other institution in the country is capable of providing the knowledge needed for fighting the most sophisticated crimes of modern era as well as other forms of socially unacceptable behaviors, it has been developing its curriculum over the last decade aiming to improve its education process on all three levels (see below) in two directions. Firstly, to reach the European standards in education and training of criminal investigators and other middle management level law enforcement officials contained within or introduced by so-called European Higher Education Area - EHEA and European Research Area - ERA; and secondly to provide the students with the knowledge required for combating both conventional (everyday) crime as well as contemporary manifestations of organised crime. At the same time, the Faculty was striving to improve international cooperation with educational institutions concerned with studying crime in the region through organisation of several international, crime- and science-related conferences in which our respectful colleagues from Belgrade, Zagreb, Ljubljana, as well as from other European countries, actively participated. Some of the famous institutions we worked with so far are: The Max-Planck Institute for Foreign and International Criminal Law (Freiburg), Department for Criminal Law and Criminology of the Faculty of Law University of Ghent (Ghent), Institute for Scientific Police and Criminology (Lausanne), European Society of Criminology, Faculty for Police and Security Studies (Ljubljana), etc. The third line of development is to be observed in the Faculty's active involvement in numerous national and international criminological research projects. Human trafficking, corruption, domestic violence, youth crime are only some of the topics that were externally financed (by US Embassy, Swiss Embassy, Open Society Fund Bosnia and Herzegovina) and researched by our professors and researchers in recent years.⁹

Research projects are being implemented through two research institutes, namely the Institute for Criminology and Security Studies and the Institute for Forensic Sciences and Court Expertise. As for the education, in the course

of the latest reform, that took place in 2005, the Faculty has created the curriculum in accordance with the very demanding requirements of so-called Bologna process of harmonisation of university education in Europe. Studying at the Faculty of Criminal Justice Sciences is organised on three levels: bacalaureate, specialist and master undergraduate programme is organized in three departments: Criminal investigation, Criminology, Security studies. Those who have already been employed in some law enforcement agencies and want to improve their managerial skills related to fighting some of the most serious forms of crime such as terrorism, human trafficking or drug related crime, can obtain a Specialist Degree in Criminal Justice Sciences - in the area of „Security Management“ by completing the Specialist study.¹⁰

Those interested in widening their knowledge into European criminal justice systems, including supranational institutions and issues defined within so-called EU Justice and Home Affairs can obtain a Master of Criminal Justice Sciences degree by completing the postgraduate programme. The knowledge that students get in the master programme are not only improving the skills needed for regional and international cooperation in criminal matters but they are also improving the understanding of contemporary policing systems and standards around Europe which is very important if we aim at becoming the part of the European Union soon. That is why the majority of the professors in the Master programme are our distinguished colleagues (such as Prof Cyrille Fijnaut, Prof. Paul Ponsaers, Prof Tom Vander Beken, Prof. Gaetano Insolera and others) that are being invited to convey their first-hand knowledge to our students.¹¹

Faculty of Law in Sarajevo founded 1946. In the first year were enrolled a total of 334 students. Today, Faculty of law has around 57,000 enrolled students. There is Center for scientific research, institutes, libraries and publishing and legal clinics. The results of the scientific work of the Faculty were published in the proceedings, and journals, textbooks, monographs etc. The library of the Faculty of Law has around 200,000 of titles. Professors of the Faculty of Law have been engaged as prominent experts.⁴

The first university in Bosnia and Herzegovina, originally established in 1531 as an Islamic law college, with a modern university being established and expanded on top of that in 1949.

Read more: <http://www.answers.com/topic/bosnia-and-herzegovina#ixzz1U9o0c4En>

Faculty of Political Sciences was founded 1961. It established Institutes for Social Science. There are: Center for education, Center for local development, Center for communication, Center for international relation and study, Center for democratisation and human rights, Center for social research, Center for research conflicts, Center for security and peace study, Center for European integration (http://www.fpn.unsa.ba/fpn/images/stories/Institut/IDI_FPN_portfolio_2010.pdf) There are cooperation with several foreign universities (Fakultet za družbene vede Univerziteta Ljubljana, Slovenia, Fakultet političkih nauka Univerziteta Beograd, Serbia, Filozofski fakultet Univerziteta Priština, Kosovo / UN Res. 1244, Fakultet političkih nauka Univerziteta Podgorica, Montenegro, Pravni fakultet,

9. <http://www.fknbih.edu/LinkClick.aspx?fileticket=OmzHj1iDyBM%3d&tabid=36&mid=383&language=hr-BA>

10. <http://www.fknbih.edu/LinkClick.aspx?fileticket=OmzHj1iDyBM%3d&tabid=36&mid=383&language=hr-BA>

11. <http://www.fknbih.edu/LinkClick.aspx?fileticket=OmzHj1iDyBM%3d&tabid=36&mid=383&language=hr-BA>

12. <http://www.pfsa.unsa.ba/OFakultetu/IstorijaFakulteta/tabid/56/Default.aspx>

Univerzitet Ćiril i Metodije, Skoplje, Makedonija, Fakultet političkih znanosti Sveučilište Zagreb, Croatia, Institut für Publizistik und Kommunikationswissenschaft Universität Wien, Austria, EURAC etc.). The faculty has cooperation with the Fullbright Program SAD (prof. dr. Maureen Taylor sa Rutgers University, prof. dr. Shannon Martin sa University of Maine, prof. dr. Hugh Fullerton sa Sam Houston State University, te prof. dr. Aida Hozić, Department of Political Science Gainesville Florida (more information: see EURAC at <http://www.eurac.edu/index>)

List of projects: Vrijednosni odnos političkih elita u Bosni i Hercegovini prema BiH i Europskoj uniji; Manjinske skupine i mediji u Bosni i Hercegovini: studija slučaja Kanton Sarajevo, Uloga nacionalnih parlamenata u procesu evropskih integracija, Izrada Sociološkog leksikona, Regionalni projekat promocije i podrške istraživačkim institucijama – RRPP Univerzitet u Friburgu, Ostali”: inicijativa za promišljanje o konstitutivnim kategorijama u Bosni i

Hercegovini, „Građani/ke za evropu.

List of projects in progression: BECAN - Balkanska epidemiološka studija o zlostavljanju i zanemarivanju djece and COST (Cooperation in Science and Technology) Action ISO 906: Transforming

List of conferences: Ustav bosne i hercegovine; ljudska prava – federalizam izgradnja države, Otvaranje predstavništva evropske akademije Bolzano, Akademska zajednica i mediji u euroatlanskom integracijskom procesu, Mjesto i uloga ‚ostalih‘ u ustavu bosne i hercegovine i budućim ustavnim rješenjima za bosnu i hercegovinu, Državnost bosne i hercegovine u kontekstu implementacije daytonskog mirovnog sporazuma i euro-atlantskih integracija I Medijsko pokrivanje vijesti o maloljetnicima u sukobu sa zakonom.

Table: Public universities in FBiH

University	Faculty	Academies	Total	SSH	Number of students
Sarajevo	20	3	23	7	29.081
Tuzla	12	1	13	4	13.586
Mostar (University)	9	1	10	3	8.298
Mostar (University)	8	0	8	3	4.611
Bihać	7	0	7	4	4.856
Zenica	7	0	7	3	4.408
Total	63	5	68	24	64.840

Source: Anon., 2010c : 13; university pages

The University of Mostar is the only Croatian language university in Bosnia and Herzegovina. Roots of University of Mostar date back to 1895 when the Franciscan theological school was established. In 1950 a higher teacher-training school started with its work in Mostar. Then followed the establishment of higher technical school in 1959, higher agricultural school in 1960, departments of the Faculties of Law and Economics. The University was established in Mostar in 1977 and faculties and higher schools function further on as its part. From 1992, the Croatian language is the official language at the University of Mostar. The University of Mostar is the only Croatian speaking University in Bosnia and Herzegovina. Today the University has around 16,000 students and 1,000 employees. There are nine faculties, academy of Fine Arts, eight intitutes and the Student center within the University. The University of Mostar participates in the Rectors' Conference of Bosnia and Herzegovina and it is also an associate member of the Croatian Rectors' Conference.

During the academic year of 1994/95 "Džemal Bijedić" University started work in the east part of Mostar staning Bosnian as the official language. University Džemal Bijedić of Mostar now maintains a campus in the east part of Mostar. The higher education reform and the signing of the Bologna declaration have forced both universities to put aside their differences to some extent and work to be competitive on a regional level. The University organized the Constitutional-law position of Croats in Bosnia and Herzegovina Conference in Neum, in late October 2005. In the summer of 2006, University of Mostar, Džemal

Bijedić University and University of Granada have started to work on the International University Center Mostar. The University of Mostar signed cooperation agreements with the universities in Pesc, Granada, Brandenburg, Rome, Ljubljana, Maribor, Podgorica, Koper, Zagreb, Osijek, Dubrovnik, Split, Rijeka, Zadar, Pula, Mostar (east), Sarajevo, Banja Luka, Tuzla, Zenica, Bihać, East Sarajevo.¹³

University of Tuzla is a public university located in the city of Tuzla, Bosnia and Herzegovina. The university was founded in 1958. It became a proper university in 1976, and today is one of the major institutions of higher learning in Bosnia. A college of mining was established in 1958 and Faculty of Technology in 1959 as a first faculty outside University of Sarajevo, at which time the university had 159 students. The Mining School developed into a Faculty of Mining in 1960. From there more faculties were added and enrollment increased, until an independent institution of higher education was created in 1976. Members of Faculty are: Business School, Faculty of Law, Faculty of Education and Rehabilitation, Faculty of Economics, Faculty of Philosophy etc.¹⁴

University of Zenica is a public university located in the city of Zenica, Bosnia and Herzegovina. The university was founded in 1961 as college and became a proper university in 2000. The college of metallurgy was established in 1950 and has been transferred to Faculty of Metallurgy in 1961 as a outside faculty of the University of Sarajevo. From there more faculties were added and enrollment increased, until an independent University was created by the Parliament of Zenica-Doboj Canton in 2000. The

13. <http://www.answers.com/topic/university-of-mostar#ixzz1UA4lmchg>

14. <http://www.answers.com/topic/university-of-tuzla#ixzz1UA5z31M2>

University is member of the Balkan Universities Network. Faculty of Education: Faculty of Economics, Faculty of Law, Faculty of Islamic Pedagogy.¹⁵

Besides for public HE institutions, large number of private HE institutions operates in Federation BiH. They can be divided in: private religious HE institutions and other private HE institutions. Private religious HE institutions that have long tradition are: Fakultet islamskih nauka in Sarajevo, Katolički bogoslovni fakultet in Sarajevo and Franjevačka teologija in Sarajevo.

Also, in last couple of years significant number of private faculties and universities was opened too. (Anon, 2010c: 13) In the Federation BiH the following universities operate: International University Sarajevo (natural sciences, management, public administration, art and social sciences), International University Philip Noel-Baker (tourism, management, IT, diplomacy), International Burch University (engineering, economics and education), American University (international finance and banking, digital economy and IT, international law and diplomacy), Universit Vitez Travnik (business economics, business informatics, law, health care), University of Travnik (management and tourism, education, law, graphic, health), International University Travnik (traffic, economics, logistics and ecology), Faculty of Social Sciences dr M Brkić, Faculty of Resource Management CKM Mostar, Industrial and business Management College. (Anon., 2010c: 13)

The American University in Bosnia and Herzegovina is an undergraduate establishment 2005, located in Tuzla, Bosnia and Herzegovina. In 2007, the University opened a postgraduate department in Sarajevo, offering a fast track master's degree in business administration. In 2009, it opened an undergraduate department in Banja Luka.¹⁶ The lecturing staff are mainly former US professionals, as well as some from Europe and Bosnia & Herzegovina. Some lectures are conducted via online, distance-learning methods, in direct link with SUNY lecturers. Students from AUBIH receive double diploma (both from the US and Bosnia & Herzegovina), they attend one semester in USA; they have opportunities for work placement with leading US companies such as Xerox, Microsoft, Johnson & Johnson and Kodak. AUBIH has an established partnership with State University of New York at Canton (SUNY) to offer undergraduate programs in the fields of international financing, banking, insurance and risk management, information technology and digital economy. It also offers one year fast-track graduate degree program in Master of Business Administration from SUNY IT. They have access to the SUNY online library. The University is organized around three colleges: The College of International Finance and Banking - CIFB (Tuzla, Sarajevo, Banja Luka), The College of International Law and Diplomacy - CILD (Tuzla, Sarajevo, Banja Luka), The College of Digital Economy and Information Technology - CDEIT (Tuzla).¹⁷

International Burch University was established in 2008 in Sarajevo, capital of Bosnia and Herzegovina, with the goal of presenting a unique opportunity to rethink the very idea

of a modern university and formulate a blueprint for the future (private). Upon the Sarajevo Canton Ministry of Education decision, teaching process was started according to Bologna System of Education (3+2+3) entirely in English language. IBU is member of the private Bosna Sema Educational Institutions family, well known on the ground of Bosnia and Herzegovina for the success its students shows participating various educational competitions on federal, country and international level. Bosna Sema Educational Institutions offers the education in seven schools from primary school, through college up to university in cities of Tuzla, Bihac, Zenica and Sarajevo. IBU, like other institutions owned by the Bosna Sema Educational Institutions family, is part of the Gülen movement.¹⁸

Faculty of Education - There are two departments within the faculty: English Department: English Language and Literature, Department of Oriental Philology: Turkish Language and Literature. The duration of study is 4 +1 +3. The main language of instruction is English with the exception of Oriental Philology, in which classes are fully conducted in Turkish.

Faculty of Economics - Department of Management within the Faculty of Economics offers the following majors: Management and Information Technologies, Marketing Management, Financial Management.

The library has thousands of books in the field of Economics, Information Technology, Humanities, Literature, Linguistics, Pedagogic, Biology, Chemistry and Mathematics. Students also have access to digital CD / DVD, audio files. IBU has signed a Cooperation Agreement with the National and University Library of Bosnia and Herzegovina (NUB), which offers students sources from their rich archives, reading rooms and a multimedia room, a database of all scientific fields and other services from their activities.¹⁹

Sarajevo Graduate School of Business (SGSB) is a private university located in Sarajevo established 2004. It is mainly focused on MBA degrees. The school is in partnership with Texas A&M University located in Commerce, Texas, United States of America and the International University of Sarajevo located in Sarajevo.²⁰

Sarajevo School of Science and Technology (SSST) is a private university, located in metropolitan Sarajevo, Bosnia and Herzegovina, within the town of Ilidža, Bosnia and Herzegovina. University established 2004. University offers bachelor's degrees, master's degrees and doctorate degrees. The university is in partnership with University of Buckingham of the United Kingdom. These are the 6 departments into which the university is divided: Department of Computer Science, Department of Information Systems, Department of Economics, Department of Political Science & International Relations, Department of Engineering Science and Department of Modern Languages.²¹

Twenty faculties in BiH do not have libraries where students can find necessary literature. On the other hand COBISS-BiH encompass usage of library and scientific basis for 26 libraries only, which are full members and involved in Virtual library of BiH - VIBBiH (NUBBiH). In the 2005-2009 period, significant improvements were noticed in the

15. <http://www.answers.com/topic/university-of-zenica#ixzz1UA6Zh5cB>

16. http://www.answers.com/topic/american-university-in-bosnia-and-herzegovina#cite_note-2

17. <http://www.answers.com/topic/american-university-in-bosnia-and-herzegovina#ixzz1UA05VAdE>

18. Read more: <http://www.answers.com/topic/international-burch-university#ixzz1UA11sZeK>

19. Read more: <http://www.answers.com/topic/international-burch-university#ixzz1UA1Hw1P2>

20. Read more: <http://www.answers.com/topic/sarajevo-graduate-school-of-business#ixzz1UA2h1e8H>

21. <http://www.answers.com/topic/sarajevo-school-of-science-and-technology#ixzz1UA3teCl6>

implementation of the Bologna process in Federation BiH. The most responsible subjects that produced the positive results are public HE institutions, international community in BiH as well as more active involvement of Ministry for Civil Affairs of BiH – Council of ministers especially regarding the coordination of HE. Outline law about HE in BiH that is consistent with Bologna process was adopted in 2007 (Anon., 2010c : 15).

Joined members of University of Sarajevo relevant for SSH are: Institut for History, Institute for Research of Crimes Against Humanity and International Law, Oriental Institute, as well as university centers: Centre for interdisciplinary Study, The Human Rights Centre (HRC), Univerzitet-ski teleinformatički centar (UTIC), Clinical Centre. (Anon., 2010c: 13-15)

Institute for Research of Crimes Against Humanity and International Law from Sarajevo is a public scientific institution engaged in analysis of crimes against peace, crime of genocide, and other grave breaches of international law from the historical, legal, sociological, criminology, economic, demographic, psychological, political, cultural, medical, environmental, and other aspects of relevance for the complete research of crimes. The Institute was established on 1992 based on Law Decree of the Presidency of the Republic of Bosnia and Herzegovina. The focus of the Institute is particularly on research of: planning, preparation, commencement, and/or conducting the aggressor war or the war which violates international covenants, agreements, guarantees or participation in a common plan or conspiracy in perpetration of one of the cited actions; violation of war laws and customs of war; murder, torture or taking civilians from the occupied territory or to the occupied territory to a forced labor and any other reason; killing or ill-treatment of prisoners of war or dying persons; killing of hostages; looting of public or private property; deliberate destruction of towns and villages or wanton plundering not justified by necessary military needs; genocide, crimes against humanity, war crimes against civilians; war crimes against the injured or ill persons; war crimes against prisoner of war; organizing of groups to incite the commission of crime of genocide, crimes against humanity and war crimes; unlawful killing and inflicting injuries of enemy soldiers; unlawful taking of belongings from the killed persons or those injured at the battlefield; use of unlawful combat means; inflicting injuries to the parliamentary; cruel treatment with the injured, sick and prisoners of war; unjustified delay of repatriation of prisoners of war; destruction of cultural and historical monuments; inciting to aggressor war; abuse of international signs; racial and other discrimination; enslavement and transport of enslaved persons; international terrorism; endangering of people under international protection; taking hostages, and other grave breaches of the rules of international law.

The Institute may organize its units as Centers in other places in the territory of Bosnia and Herzegovina and abroad. Institute for Research of Crimes against Humanity and International Law of the Sarajevo University was established and it began functioning under the difficult conditions of the aggression against the Republic of Bosnia and Herzegovina. There are 26 fulltime employees in the Institute, four of which have PhD and four M.A. in social sciences,

then 4 professional associates – scholars, 6 with B.A. degree, and one has a Junior College degree, 4 have secondary education degree, there are two interns and one employee with technical skills. The structure of permanent external associates contains 5 doctors and 5 scholars with master's degree. The temporary external associates are numerous affirmed scholars, who join the Institute on the temporary basis for the need of specific studies. The special focus is on the network of field investigators who conduct the interviews and questionnaires for the needs of empirical studies, and their number varies depending on the nature and extent of research. Sometimes a study requires dozens and sometimes even hundreds of field investigators. The subject of research, space, time, equipment and funds, prior experience determine the number of field investigators. And yet, every new study requires a briefing to be organized with all of them. In addition to the most complex and most important problems, such as the problem of hiring the competent staff, the Institute has had apparent problems with the space, equipment, and financial resources. Thanks to the Prime Minister of the Federation of Bosnia and Herzegovina Government, the Institute got its own space in 2007. The building is currently under renovation, and it will serve all the purposes of the scientific work by the Institute. The refurbishment of this building requires also the procurement of equipment – IT and office equipment, modern library and archive for the Institute.

Financial resources for the basic activity are secured by the founder – the Assembly and the Government of the Canton Sarajevo, which also secured some funds for the Sarajevo University, of which the Institute is a unit. Considering the fact that the basic Institute activity is articulated though the study of holocaust, genocide and other forms of crimes against humanity and international law, and the Institute therefore does not have other alternatives to secure other additional funds, which may be required for specific empirical studies due to the extent, duration, diversification and the requirement of a complete observation, it is necessary that the founder secures other additional funds to be used for these projects.

Being aware that we live in times in which we have to determine the truth and yet look into the future, free of burdening past, it is perhaps necessary to engage other social elements as well that would secure additional funds for the projects they envisage. Also, the issue of funds is unfortunately misused by some associations that represent themselves as competent researching institutions, and in fact they are quasi researchers and they manipulate the public by disclosing their truth to the national and international public. Their truth does not correspond with the reality and it may only serve the daily politics purposes.

Being very much aware of these facts, the Institute, the founder and some other state authorities need to secure additional funds, especially for the empirical studies which will determine the truth by applying the scientific methodology, which will ultimately be presented to the national and international, scientific, professional and general public.

Institute for Research of Crimes Against Humanity and International Law of the Sarajevo University together with all of its associates participated in many national and international Conferences, and in that way contributed to the quality of the results by the national and international

legal and other institutions that deal with the issues of human rights and freedoms and the problems relative to their implementation. This is definitely closely related to the basic activity of the Institute.

It is obvious that these are numerous, versatile, complex, independent and common activities of the Institute.

The Institute representatives participated with their papers at the World Conference on Human Rights in Vienna, organized by Ludwig Boltzmann – Institute for Human Rights, and the Conference on genocide in Bosnia and Herzegovina (held on 1993 in New York). The Institute gave its contribution to the successful work of the nongovernmental Permanent People's Tribunal, the successor of the famous Russell's Court in Rome, which held in 1995 two sessions on the crimes committed in the territory of former Yugoslavia, or better to say public trials in Bern (1995) and Barcelona (1995).

The Institute organizes the lectures for the students of the Sarajevo University (different departments and years) on the scientific-theoretical and other issues, questions, results of the studies on holocaust, genocide and other forms of crimes against humanity and international law.²²

The Oriental Institute in Sarajevo, its premises, research library and complete manuscript collection (more than 2.000 codices and 15.000 other archival material) were deliberately destroyed in shelling on May 18, 1992 by Serb forces around the besieged city of Sarajevo. The Oriental Institute had clearly been singled out. According to interviews with eye-witnesses, the building had been hit with a barrage of incendiary munitions, fired from positions on the hills overlooking the town center. No other buildings in the densely built neighborhood was hit. The Institute, which occupied the top floors of a large, four-storey office block on the corner of Veljka Cubrilovica Street and Marshal Tito Boulevard (Sarajevo-Centar municipality), was completely burned out, its collections destroyed. The manuscript collection of the Oriental Institute was one of the richest collections of Oriental manuscripts in the world. Those manuscripts were written over centuries in the wide areas of the East to serve as life manuals for the people all over the world. Losses also included 5,263 bound manuscripts in Arabic, Persian, Turkish, Hebrew and local arebica as well as tens of thousands of Ottoman-era documents.²³

Oriental Institute Sarajevo is a public research institution established in 1950. Its mission is to collect, process and publishes manuscripts and archival materials, and studies, and to cooperate. The results of the Institute's work is published in a journal (established 1950), and series, and special edition (monographs), books, studies and other media. Some of these works are capital works. The Institute organizes scientific conferences. It has good international cooperation (Ankara, Istanbul, Cairo, Vienna, Paris, Dubrovnik, Zagreb, Belgrade and other).²⁴ A list of projects is available on the Institute's website.²⁵

Catholic Theological Faculty has been established in 1893 and operated until 1944. The Faculty reopened 1969.²⁶ The Library has been established in 1882. Journal Vrhbosnen-

siae (first copy 1997) indexed in EBSCO (Ipswich, Massachusetts, SAD) and Religious & Theological Abstracts (Myerstown, SAD).

The Human Rights Centre (HRC) of the University of Sarajevo is an organisational unit of the University. It was founded with aim to provide the University with a possibility to organise and enable itself realise international human rights projects. Its mission is to contribute to the implementation of international human rights through information dissemination processes and providing necessary documentation, lectures, expert advice, research and reporting and publishing relevant materials. The Centre is an interdisciplinary body and is co-operating with other similar institutions, non-governmental organisations and national and international bodies dealing with human rights issues. Its activities include national as well as international domains. According to its mandate, the HRC cannot provide direct, concrete and legal protection to individuals who raise allegations about human rights violations. The HRC is not in a position to address governmental institutions in order to deal with the mentioned violations. The HRC staff will direct individual cases to relevant organisations and institutions. Dealing with other activities related to accomplishment of the Centre's main tasks.²⁷

The mission of the Programme department is to promote human rights in dynamic, modern oriented and impartial way. The goal of the Programme department is to make significant contribution to social-political theory, state analysis and human rights practice with the objective of strengthening and supporting of realisation of human rights, citizens, NGO sector, academic institutions and democratic progress in general. This goal is to be realised through research, publishing activities, conferences, seminars, summer schools, trainings for the professionals, public debates and consulting.²⁸

The Centre is supported by: the European Commission, Open Society Fund in BiH, Ministry of Education of the Federation of BiH, Government of the Canton of Sarajevo, Ministry of Foreign Affairs of the Republic of Italy, Ministry of Education of the Republic of Italy, and Ministry of Defense of the Republic of Italy, Swedish Government through the Swedish International Development Cooperation Agency (SIDA), Norwegian Ministry of Foreign Affairs, United Nations Development Program (UNDP), Canadian International Development Agency (CIDA), Austrian Development Cooperation implemented by WUS Austria, Office of Public Affairs of the US Embassy in Sarajevo.²⁹

Research projects include: State or nation building? Visions, controversies and perspectives of political transition in Bosnia and Herzegovina (April 2009 - October 2010); Feminism in the post-socialist muslim context, The ethos of religious peace builders, disclosing hidden history: Lustration in the Western Balkans.³⁰

Joined members of University of Mostar are: Ekonomski institut, Institut za građevinarstvo, Institut za hrvatski je-

22. More information <http://www.institut-genocid.ba/about.html>

23. Read more: <http://www.answers.com/topic/oriental-institute-in-sarajevo#ixzz1U9oIDxIR>

24. More information on http://www.ois.unsa.ba/index.php?option=com_content&view=article&id=14&Itemid=23

25. http://www.ois.unsa.ba/index.php?option=com_content&view=article&id=42&Itemid=45

26. More information on <http://www.kbf.ba/page.php?id=12>

27. <http://www.hrc.unsa.ba/v2/index2.php?opcija=sadržaj&kat=1&id=1&jezik=e>

28. <http://www.hrc.unsa.ba/v2/index2.php?opcija=sadržaj&kat=2&id=7&jezik=e>

29. <http://www.cps.edu.ba/?q=node/105>

30. more information on <http://www.cps.edu.ba/?q=node/118>

zik, književnost i povijest, Institut za strojarstvo, Pravni institut, Teološki institut.

Joined members of University "Džemal Bijedić" Mostar are: Institut za mašinstvo, Zavod za projektovanje i ispitivanje materijala i konstrukcija Građevinskog fakulteta and university centers: Centar za razvoj karijere i Centar za obuku.

Joined members of University in Bihać are: Institut Ekonomskog fakulteta, Institut Tehničkog fakulteta, Laboratorij Biotehničkog fakulteta.

Joined members of University in Zenica are: Metalurški

institut "Kemal Kapetanović", Institut za privredni inženjering, Institut za mašinstvo i university centers: Centar za društvena i interreligijska istraživanja, Centar za globalno pravno razumijevanje, Centar za inovativnost i preduzetništvo, Centar za učenje na daljinu, Centar za menadžment, kvalitet i razvoj, Centar za ekološki inženjering, Centar za motorna vozila, Centar za obrazovanje, Naučnotehnološki park.

Joined members of University in Tuzla are: Centar za razvoj daljinskog učenja, Business Start Up centar. (Anon., 2010c : 15-16)

Table: R & D organizations in Republic of Srpska

Number	R & D organizations	TOTAL
1.	The Academy of Arts and Sciences	1
2.	Public universities:	2
a)	University of Banja Luka-Faculties and Colleges	16 + 1
b)	University of East Sarajevo- Faculties and Colleges	16 + 1
3.	Private universities:	6
a)	faculties, academies, study programs	37
4.	Public high schools	2
5.	Private high schools	7
6.	Public scientific and research institutes	4
7.	Private scientific and research institutes	5
8.	R & D institutes within the public universities:	11
a)	R & D institutes at faculties	10
9.	R & D institutes within the private universities	4
10.	Virtual scientific and research institutes	1
11.	Scientific associations	>20

Sources: Anon, 2011: 12.

The Academy of Sciences and Arts of the Republika Srpska was founded in 1996 as the highest representative institution in the Republika Srpska of science and art with the task to develop and foster the science and advance the artistic activity. These tasks and goals of the Academy are accomplished by 42 Academy members (regular members, corresponding members and foreign members) who make up four departments:

- Department of Social Sciences,
- Department of Literature and Arts,
- Department of Natural, Mathematical and Technical Sciences,
- Department of Medical Sciences.

The Academy has a considerable number of boards, centres and institutes that constitute the working bodies in which about 150 scholars, university professors, researchers and other experts are engaged. In addition, scientific research takes place and within three institutes:

- Institute of History,
- Institute for Serbian Language and Literature,
- Institute of Natural and Mathematical Sciences.

Significant activity in the Academy is also carried by ten committees from various scientific fields. The principal activities of the Academy (ANURS) are: working on realization of scientific-research projects, maintenance of scientific and professional meetings, participation in the process of

policy development of science and art in the Republic of Srpska, publishing and international academic cooperation. The Academy is working on the implementation of various thematic projects, in particular „Encyclopedia of the Republic of Srpska“³¹.

The University of Banja Luka has been established on November 7, 1975. At the time the University consisted of five faculties: Faculty of Electrical Engineering, Technology, Mechanical Engineering, Law and Economics, as well as three higher schools. The other faculties were founded later: Medicine in 1978, Agriculture in 1992, Forestry in 1992, Philosophy in 1994, Architecture and Civil Engineering in 1995, Natural Sciences and Mathematics in 1996, Academy of Art in 1999 and Physical Education and Sports in 2001. The Faculty of Philology, Faculty of Political Sciences and Faculty of Mine Engineering have been established in 2009.

Today the University of Banja Luka has 16 faculties with 52 licensed study programs. There are around 600 professors, 400 assistants and 450 administrative staff members currently employed at the University. At present there are around 17.000 students at the University. The number of students that obtained their degree is as follows: more than 19.000 graduates, 700 specialists, 650 M.A. degree holders and 300 PhD holders.

Most of the faculties of the University of Banja Luka, as well as university halls of residence with student dormi-

31. Sources: /www.anurs.org/index.php?id

tories, restaurants, recreation centers, student clubs and the University Computer Center are situated in two campuses, located close to the river Vrbas and not far from the city center. The University of Banja Luka has adequate classrooms varying in size and shape, amphitheatres, medium and smaller classrooms, reading rooms and libraries, laboratories and computer rooms. The total size of classrooms is around 16 000 square meters, and of laboratories around 10 000 square meters. Most of the classrooms are equipped with video projectors and computers for display digital teaching contents. Procurement of interactive electronic boards, so called "smart" boards, is planned for the next period. The University has over 20 computer rooms with 24 hour internet access. Libraries of the University have around 185.000 books and they are subscribed to 75 scientific magazines.

As of 1 January 2008 the University of Banja Luka is integrated, with faculties as its organizational units. The Steering Board, Senate and Rector govern the University. The Rector legally represents the University. There are four Vice-Rectors (in charge of: research and scientific work, international relations, teaching and student issues and human resources and other issues). The Steering Board is the managerial body of the University. It consists of eleven members: five representatives of academic staff, one representative of non-academic staff, one representative of students and four members appointed by the government. The University Senate is the highest academic body, which discusses all academic issues and has twenty-six members: one representative of academic staff from each organizational unit (16), five representatives of students, Rector and four Vice-Rectors.

The Bologna process started at all study programs at the University of Banja Luka in 2006/2007 school year, although some faculties started the Bologna reform even earlier. Three cycle study system has been introduced: bachelor, master and doctoral studies. ECTS system of valuation of subjects and total workload of students was introduced. The principle of annual workload of students up to 60 ECTS credits was introduced. In the case of renewing the enrollment into the certain study year, the student chooses among the subjects of the next study year to complete his/her workload and to have obligations completed and results achieved during the year. To facilitate study and increase the successful exams rate the curriculum contains one semester subjects. Testing of students is partially conducted, in form of colloquiums, tests, semester papers and homework, participating in project tasks, etc. Activity of a student is monitored and valued during teaching process and accordingly the interactivity of teaching is encouraged.³²

Faculty of Economics, University of Banja Luka, is a higher education institution whose main activity is scientific teaching and scientific research. Faculty of Economic in Banja Luka was established on February 6, 1975 according to the Decision of the Municipal Assembly of Banja Luka no. 01-012/75. The Faculty evolved from the Department of the Faculty of Economics, University of Sarajevo, which began its operations on November 1, 1974. Today, upon the adoption of the Law on Higher Education of the Republic of Srpska, the Faculty possesses all necessary licenses and fully meets all necessary requirements prescribed by the Law (the Decision on establishing the conditions

for the commencement of higher education institution no. 07.1 - 4462/07 of July 2, 2007, the Decision on entry into the register no. 1-587-00 of September 13, 2007 and the Operating license no. 07.23/602-3900/09 of June 22, 2009).

Existing for 36 years, the Faculty of Economics in Banja Luka has developed scientific and educational links with the faculties of economics in the former Yugoslavia, above all, with the Faculty of Economics in Belgrade, Sarajevo and Zagreb. These links were certainly more useful to the Faculty than to these faculties; because we have just started and they already had an enviable tradition. One should be honest and say that the relationship between these three faculties and Faculty of Economics until 1991 was of such intensity to prove that science cannot have borders. Today, Faculty of Economics has signed agreements on technical and business cooperation with the faculties of economics of the following universities: Mostar, East Sarajevo, Tuzla, Zenica, Sarajevo, Nis, Kragujevac, Podgorica, Kosovska Mitrovica and Subotica, Polytechnic „Marko Marulić“ from Knin, Business Economics Academy from Čačak, and the Association of Accountants and Auditors of the Republic of Srpska and Republic of Serbia, members of the International Federation of Accountants IFAC.

When it comes to cooperation with the faculties of the same specialization outside of Serbia and BiH, i.e. toward Western European and American universities, the situation is favorable, which comes from the fact that the Faculty has achieved more in this area over the past 15 years than in the previous 20 years together. For example, before the war was almost inconceivable for assistants to get the chance to go on a study research abroad. Today, it is a practice.

11,001 students have enrolled the Faculty so far. Of this number, ending with April 7, 2011, 4,278 students have graduated.³³

Law Faculty in Banja Luka has long been realized all three levels of higher education (bachelor's, master's graduate study and doctoral studies). Until recently there was also the first degree, giving students who circled knowledge to a higher degree. For training lawyers Faculty has organized several seminars for taking judicial and notarial examination and education for specialized studies in various fields of law.³⁴

Faculty of Political Science (FPS), University of Banja Luka was established in 2008. The FPS is studying modern ideas and knowledge in the field of political science, sociology, social work, journalism and communications, but also to direct the creative open-mindedness, and expanded the intellectual, cultural and social horizons. This way, diplomas become true confirmation of the quality of knowledge, expertise and persistent moral principles.³⁵

The University of East Sarajevo has been established on 1995 as autonomous highest educational institution. The activity of the University is achieved through study, research work, training and education directly across organizational units, universities, institutes and other institutions within it. In the University there are 15 faculties and 2 academies. 14,000 students are studying at the university. Activities of the University are: educational activities, scientific-research activities, publishing, provision of intellectual services, business and public institutions issuance

32. Sources: /www.unibl.org/index.php?en

33. Sources: www.unibl.org/ekonomski-fakultet

34. Sources: www.pravobl.com

of proper attestation of instruments, purchase of books, magazines and other literature, equipment, raw materials and spare parts for the needs of university members.³⁶

The Academy of fine arts Trebinje began operations 17.11.1995 in the Cultural Centre in Trebinje. Departments on painting and graphic department have been set up. Departments of graphic design, sculpture and the Education Department could not be set up due to lack of funds, personnel and space. The first Dean of the Academy was academician prof. Milorad Corovic. In 2005, the Academy of Fine Arts, Trebinje was completed as a whole, with all output profiles (paintings, prints, sculpture, graphic design and art teacher). So far, the Academy enrolled 15 generations, with 278 students, of whom in these fifteen years of the Academy, graduated 104 of them - of which 76 graduate academic painters and 28 graduate academic printers.³⁷

Faculty of Economics, East Sarajevo educated economists in accordance with modern requirements and expected in this type of training personnel. Approximately the same importance is given to items which are acquired general knowledge of economic theory, the national economy and macroeconomic policy, and cases where the acquired knowledge in the areas of business economics. In addition, in five cases, students are trained for the quantitative analysis of economic phenomena and the use of modern computer systems. Great importance is given and the study of foreign languages. Graduates who complete the study according to the current curriculum are trained to successfully deal with macroeconomic problems, problems of enterprises, financial institutions, trade, tourism, market conditions, and to continue their scientific expertise or specialization. They are taking up professions in a number of businesses, government, banks, education and other organizations.

The faculty currently organizes postgraduate studies and master's courses: business finance and banking, management, accounting and auditing, insurance, marketing and banking. In the college there are all necessary conditions for the preparation and defense of doctoral dissertations. The Faculty deals with scientific research and a variety of professional and consulting services as well as continuing education.³⁸

Faculty of Foreign Trade in Bijeljina was created by transformation of the School of Foreign Trade in the school year 2005/2006 by the National Assembly of the Republic Srpska number: 01-484/05 from 28.07.2005 and according to Law on Higher Education in 2006. The Faculty of Foreign Trade is integrated in the University of East Sarajevo by a decision of the Board of Directors since 21.06.2007.. The faculty of foreign trade has changed its name to the Faculty of Modern Management after a board decision of the University of East Sarajevo on 20.08.2009. The faculty continued to possess extensive experience in the preparation of personnel for the economy and public administration. College for Foreign Trade is a unique college in the RS and Bosnia and Herzegovina where economists study the future of business economics teaching three courses: Foreign trade, taxes and duties; Finance, Banking and Insurance; Business Informatics.

Faculty of Philosophy in East Sarajevo was founded in 1993. Meanwhile the Faculty of Philosophy has become the largest institution of higher education at the University, at which more than 2000 students are currently studying. The Faculty of Philosophy classes are conducted in twelve study groups. Courses are taught by renowned university professors in college full-time employees, with the help of eminent visiting professors. Since the school year 2005-2006, the classes are organized in a new building that meets the highest European standards, thus creating conditions for conducting distance learning, as well as any other type of interactive learning. In college there are the following Departments: Department of Philosophy; Department of Sociology; Department of Journalism; Department of History; Department of Pedagogy; Department of classroom teaching; Department of Psychology; Department of Serbian Language and Literature; Department of General Literature and Library; Department of English Language and Literature; Department of Geography.³⁹

University of Business Engineering and Management, Banja Luka has study programs in Management, Finance and Banking, Marketing, Economic Diplomacy, engineering and graphic design, adult education and law.

Independent University of Banja Luka - NUBL, Banja Luka includes

- Faculty of Political Science - study programs: Politics, International Relations
- Environmental Engineering - study program: Ecology.
- Faculty of Social Science - study programs: Preschool; classroom instruction
- Colleges Economic Development - study programs: Economic Development, Management, Accounting and auditing, taxes, customs, budget, insurance and risk management, banking and stock exchange business
- Faculty of Informatics.⁴⁰

Pan-European University „Apeiron“, Banja Luka includes

- Faculty of Law - study programs: General Law, Business Law
- Department of Information Technology - study programs: Business Informatics, Computer Teacher
- Faculty of Philology - the study program: Russian
- Faculty of Business Economics - study programs: Public Management, Entrepreneurial Management, Banking, Finance and Trade
- Faculty of Sports Science - study programs: Sports Management, Sports Trainer, Educational and teaching
- Faculty of Health Science - study programs: Physiotherapy and Occupational Therapy, Nursing, Laboratory-medical engineering, sanitary engineering.⁴¹

„Slobomir P. University,“ Bijeljina includes

- Faculty of Information Technology - Study Program: Information Technology
- Faculty of Economics and Management
- Faculty of Philology - the study program: English
- Faculty of Law - study programs: Law, public safety
- Tax Academy
- Academy of Arts - Programs of study: Music Pedagogy, Drama and film art, graphic design, audio-visual art.⁴²

35. Sources: www.fpnbl.org

36. Sources: www.unssa.rs.ba

37. Sources: www.alutb.com

38. Sources: www.ekofis.org

39. Sources: www.ffuis.edu.ba

40. Sources: www.fakultetpim.com

41. Sources: www.apeiron-uni.eu

University of Business Studies, Banja Luka includes

- Faculty of Business and financial studies - study programs: Business and Financial Studies (study programs: Accounting and Auditing, Taxation, Customs and Budget, Banking and Exchange),
- Faculty of Information Technology and Design - course: Information Technology and Design (Study Group: Design, Computer & Information Technology),
- Faculty of Applied Economics - Study program: Management and Marketing (study group: tourism and hotel management, management and marketing of small and medium enterprises, management and marketing of the service sector),
- Faculty of Tourism and Hotel Management - course: Tourism and Hotel Management (Study Group: Tourism, Hospitality),
- Graduate School of Journalism and Communication Studies - program of study: journalism and communications,
- Faculty of ecology - the study program: Ecology⁴³

Basted on the Register kept by the Ministry of Science and Technology, 25 institutions are involved in scientific research and R&D:

- Four public scientific research institutes established by the Government (the two institutes in the field of Medical and Health Sciences, one of the agricultural sciences and one in the field of natural and multi-disciplinary science);
- At the public University of Banja Luka, there are 10 institutes (9 faculties and one university-wide institute) and 6 from the field of agricultural sciences, two in the field of Engineering and Technology, one of the natural sciences and one from the social sciences. At the public University of East Sarajevo, there is a scientific research institute in the field of engineering and technology
- The private universities were established in four institutes (social science, multidisciplinary research)

- In private (companies) are the five scientific research and development institutes, including three in the field of Engineering and Technology, a multidisciplinary field of science and one from the social sciences

Also established is a virtual institute in the field of natural sciences. - VIRTUAL International Mathematical Institute - Contracting Institute of Scientific Society of Mathematicians and Electrical Engineering in Banja Luka, Field of activity: research in natural sciences - mathematics and mathematics education. (Sources: Anon, 2011p: 78)

In the RS there are twenty associations which are registered for research work, some of which are in the field of humanities and social sciences as follows (Sources: Anon, 2011p: 84):

- Defendologija Center for Security, sociological and criminological research
- Association of Teachers
- Society for Philosophy and Social Thought
- Lawyers' Association
- Sociological Association of RS
- Philosophical Society of RS
- The association of sociologists Banja Luka
- Center for National Strategy

2.3.1 Main SSH sector trends

Universities have mostly lost their scientific research component and became higher educational schools (colleges) that offer HE with no scientific research conducted by teachers. University of Sarajevo and its School of Economic and Business can be singled out as positive examples.

Professors at universities put focus on lecturing at large number of public and private faculties and therefore have no time for scientific and other types of research.

Cantons provide funds only for education (number of students/ number of hours) and not for scientific research which can be discouraging for researchers.

Criteria for election do not prefer scientific work enough.

In public calls and tenders for realization of scientific research projects, the local SSH institutions very rarely win jobs. NGOs with only one or two employees are often preferred.

The process of indexing BH journals in relevant scientific basis (CEEOL, EconLit, EBSCO, COPERNICUS, etc) is opened.

The trend of getting involved into the regional and European scientific and academic area through projects and conferences, publishing of papers and networking for Master and PhD studies programs establishment is noticeable today.

The trend is also to establish international cooperation within SSH, joint participation within FP7, IPA and other funds, programs and projects.

The trend is also to acquire accreditations of educational and scientific institutions (a good example is the School of Economics and Business Sarajevo).

42. Sources: /www.spu.ba

43. Sources: www.univerzitetps.com

2.3.2 Main Socio-economic Challenges and Social Innovation in BH

There are not enough organized activities related with R&D. Positive examples such as successful knowledge exchange and qualification of domestic capacities at universities and several medical institutions, as well as the significant success of innovators on national and international level do not change the image of BiH. BiH which had strong research capacities and great capability of technological development in the early 80s, is back at the very beginning today.

This fact will become a major problem in development of BH economy in forthcoming years, regardless of country's involvement into European integration.

2.4 Social Innovation

The attention mostly is not focused on the social innovations, but rather on innovations within technical, biomedicine and natural sciences. BiH still needs to work a lot on promotion of importance of social innovations for society and economy.

In order to initiate establishment of connections in the area of inventions, many countries develop so called national innovation systems (NIS). Establishment of NIS enabled new technological-economical paradigms - economy of knowledge that is based on managing the technological change as a key driver for economic development and whose main resources are knowledge, e.g. science, research, development and education that result in new technologies (products, processes and services) and innovations. (Anon., 2010c; Anon., 2010b; Anon. 2010a)

The structure of national innovation systems (NIS) according to OECD is comprised of four main parts: public scientific research and research development sector that encompass universities (HE) and public scientific institutes financed mostly from state's budget, and which can inclu-

de unprofitable scientific organizations, research-development components in enterprises which encompass formal R&D resources, individual financing of research in industrial laboratories and informal resources such as knowledge of an engineer and technical staff.

Educational institutions that "create" researchers and engineers provide training for governmental institutions that create innovation politics which includes all types of public programs, regulations and administrative measures which should provide support for technological development and innovation, especially cooperation between science and economy. (Anon., 2010c; Anon., 2010b; Anon. 2010a)

Existing incubators in BiH have certain problems in their work, as a result of organization, finance, inadequate knowledge etc. This resulted in signing of Memorandum of Understanding (MoU) by representatives of incubators in BiH: Mostar, Sarajevo, Prijedor, Zenica, Žepče, RPC Tuzla, BIT centar Tuzla, Brčko, NBR Modriča/Gradačac. (Anon., 2010c; Anon., 2010b; Anon. 2010a)

3 Integration of B&H in the European Research Area in the Field of SSH

Several activities have been carried out: Organisation of trainings for the research community on preparing and implementing FP7, COST and EUREKA projects; Organisation of trainings on how to use trans-national networks (such as partner search, CORDIS (Community Research and Development Information Service) and presenting its information on the web); to assist in mapping the research community in the country and support on how to communicate with the clients; To assist to conduct promotion and awareness activities on the possibilities for international cooperation on a project and programme basis under EU RTD Programmes; to assist in networking activities and facilitation of partnerships between potential applicants for EU RTD Programmes. (Anon., 2010d; Anon., 2010c: 78-88)

With the support of the EC Twinning Light Project "Support to the Directorate of European Integration and other relevant BiH institutions in preparations for participations in Community Programmes", an Action Plan for the implementation of Community Programmes in Bosnia and Her-

zegovina was prepared, which at the time outlined a list of 11 potential Community programmes for the country to join. The Plan, which was adopted by the Council of Ministers BiH in 2005, and the list itself are out of date and need revising. In 2007, under the EC Twinning Light Project "Lifelong Learning and Youth Action", the Road Map and the Action Plan for joining Life Long Learning and Youth in Action programmes were prepared. The Council of Ministers BiH adopted the Road Map and the Action Plan in 2008. (Anon., 2010d; Anon., 2010c : 78-88)

Under IPA 2008, the participation in the Community programmes was supported through payment of the entry ticket for FP7 for 2009. The IPA 2009 will continue to support the participation of Bosnia and Herzegovina in FP7, by allocating the funds for the payment of the entry ticket for 2010. The IPA 2009 will also be used for paying the entry ticket for the participation in Culture programme 2011. IPA 2009 comprises of paying the Entry ticket for Community Programs FP7 and Culture and for institutional and capacity development of 3 innovation centres, by

linking their activities with the possibilities offered in FP7, in order to further disseminate information among the research community in BiH, and to combine efforts together with academia and industry in applying for FP7 Projects. (Anon., 2010d; Anon., 2010c : 78-88)

The implementation of the CARDS 2006 EC funded project "Strengthening the Capacity of the Department for Science within Ministry of Civil Affairs" started in September 2009. The aim of the project is to assist sector for science and culture of the Ministry to strengthen its capacity in dealing with issues related to science and technology. Inception report for the project was approved, and, according to the ToR the project's main purpose (immediate objective) is: *"...to assist and advise the Ministry of Civil Affairs, entity ministers responsible for Science and Technology, and other institutions within the current division of constitutional and other accountabilities, to secure the right internal and external mechanisms, knowledge, institutions and capacity building skills and people to drive the wider agenda for Science, Research, Development and Innovation in the Service of Socioeconomic development in the BiH and to ensure the establishment of its comparative advantage in the Regional, European and Global stage."* (Anon., 2010d; Anon., 2010c : 78-88)

Through the Austrian Development Cooperation (ADC) funded project (2004-2008), a National Contact Point (NCP) System was established in BiH for the implementation of EU Framework Programmes. One of the most important deliverables of this project was institutional positioning of the NCP system within the Ministry of Civil Affairs. A number of info days have been organised at all Universities in Bosnia and Herzegovina. The following topics – have been covered: General information on FP7, Specific programme Cooperation, CORDIS How to Register and Partner Search in FP7, Financial Rules in FP7, How to Prepare a Successful Project Proposal. (Anon., 2010d; Anon., 2010c: 78-88)

Ministry of Civil Affairs is currently negotiating the continuation of Austrian support in the period 2010-2012. The purpose of the project would be to support the operational costs and logistics of the BiH NCP system and its Focal Points system.

In 2008, Ministry of Civil Affairs allocated funds in amount of EUR 250.000 for researchers and research institutions in BiH that participate in the 7th Framework Programme, EUREKA and COST projects. With association of Bosnia and Herzegovina to FP7 and with the grant support to researchers and research institutions for participation in this programme by the Ministry, it is expected that the participation of the applications and BiH's

involvement in FP7 projects increases. However, due to the economic crisis, financial support to research institutions in 2009 was removed from the budget by the Ministry of Finance and Treasury, but Ministry of Civil Affairs has planned those funds for 2010, and will provide a legal basis for continuation of this type of support in the years to come. (Anon., 2010d; Anon., 2010c: 78-88)

Ministry of Civil Affairs has also applied for the establishment of an EU funded mobility structure related to the programme EURAXESS. Ministries responsible for Science at the lower levels of government (entity and cantonal) had a number of activities in the last quarter of 2008:

Ministry of Science and Technology of Republika Srpska (RS) established the Agency for Information Society of RS in 2008 with the mandate to coordinate development of informatics and Internet, as well as to initiate measures for development of e-governance for the local self-government authorities. In cooperation with two public universities in RS, Centre for Project Management was established. It is the body which aims to provide consultation and information services to researchers and academic institutions in this entity on FP7 and other EU programmes that encompass research and technological development. The ministry closely collaborates with "Academic and Research network – SARNET" on the establishment of research and e-infrastructure for academic institutions in RS. Its annual Programme for support of young and talented researchers from 2008 included a new sub-programme for support of PhD studies in 2008. (Anon., 2010d; Anon., 2010c: 78-88)

Federal Ministry of Education and Science is a body responsible for science in the entity of Federation of BiH (FBiH). In 2008 this authority launched grant supports for projects and programmes which increase activities in the field of science and research. The programmes and projects under the following general areas have been financed or co-financed: popularisation of science and research, financial support to researchers' associations and scientific institutions in FBiH, grants for research projects of importance for FBiH, support for participation in scientific events, organisation of scientific events, grants for editorial activities as well as for postgraduate and doctoral dissertations, specialisations and study visits abroad, innovation, international programmes (such as bilateral agreement with Slovenia), subscription and maintenance of data base Web of Science. (Anon., 2010d; Anon., 2010c: 78-88)

During the 6th Framework Programme, BiH, as non-associated country, and its research institutions succeeded to get EUR 2.7 million in the grants for the projects submitted and accepted. Under FP7, until the end of 2008, BiH, as a "third country" succeeded to receive EUR 1.1 million. Therefore, there has been an obvious potential or "critical mass" in BiH research community to continue to even more actively participate in FP7 as of January 2009, when BiH became an associated country to the Programme. Bosnia and Herzegovina already participates in some COST actions and a few applications are already prepared for EUREKA. As a consequence, the research community in BiH will be able to use more funds from the EU RTD Programmes in order to strengthen its research and innovation activities. As for the supporting measures in relation to the Community programmes, the activities in the past have shown that there is a need for wider systematic approach as to the awareness rising among the domestic institutions, the potential applicants and the public in general on the possibilities of the participation in the Community programmes and the benefits that arise from them. Various foreseen modes of information transfer in relation to Community programmes would support Bosnia and Herzegovina in its implementation of the aforementioned Framework Agreement, and thus contribute to the efforts of the country on its road to the European integrations. (Anon., 2010c: 78-88)

4 SWOT analysis of the SSH research capacity in Bosnia and Herzegovina

SWOT analysis (strengths, weaknesses, opportunities and threats) for SSH is prepared based on analysis of available documentation, Science Development Strategy for BiH 2010-2014, Science Development Strategy for FBiH 2011-2021 and additional documents, Registrar of scientists and web pages of research and educational organizations.

STRENGTHS	WEAKNESSES
<p>Certain number of notable scientists and researchers; Large number of HE institutions; Preserved R&D potentials at HEIs; Benchmarking of curricula; Interdisciplinary trends (twinning, joint, double, triple); International experts pool (diaspora); Existing R&D institutes; Geographic position of BiH; Developed and modern telecommunication network; Participation in EU programs: IPA, FP7, COST, EUREKA; Scientific-technical cooperation with the republics of former Yugoslavia; CEFTA (Central European Free Trade Agreement); Membership in COST (Cooperation in Science and Technology).</p>	<p>Marginalization of science and research; Weak regional and international RTD cooperation; The lack of a quality system assessment (RTDI); Lack of SPINa and measurement of science influence of GDP increase; Weak knowledge about the global competitiveness conditions; Insufficient level of R&D leadership and management; Education is not pointed towards raising the competitiveness of products and RTD in general; Modest investments in RTD sector; Poor economic and social status of RTD workers; Statistical indicators related to RTD do not exist; Poor support of indexes and improvement of impact factor of teachers; Poor usage of existing RTD infrastructure and insufficient investments in RTD; Inadequate academic and R&D network in BiH and "brain drain"; Small number of highly educated among the population; Relatively high age of scientific personnel; Poorly expressed willingness to cooperate on joint projects in BiH; Higher education institutions at the bottom of the relevant ranking of universities in Europe</p>
OPPORTUNITIES	THREATS
<p>Change the HE Law; EU funds for improvement of RTD sector and EU model (EHEA + ERA); Young R&D personnel; Low price of R&D work; Possibilities opened with technology transfer; Involvement of BH experts from abroad; Demand for scientists, researchers and experts in the world opens possibilities for scientifically proactive communities; The business needs for development of RTD sector; Transfer and implementation of innovations; Popularization of scientific findings; The expansion of education and employment of "young researchers"; Increasing the number of centers for technology transfer, innovation centers, technological parks and so on.</p>	<p>Lack of understanding of decision makers about the importance of RTD for the country's development; Marginalization of RTD on all levels; Lack of individual responsibility; Lack of LLL culture; Lack of understanding of social consequences of R&D emigration (brain drain); Slow implementation of Lisbon Agreement; Inadequate valuation of work results by scientific and academic community; Brain drain; Fear of failing and change aversion.</p>

Source: Anon., 2009: 57-59

5 SSH Research Priorities for Bosnia and Herzegovina

Priorities were taken from Science development strategy of BiH for 201-2014 and Science Development Strategy of Federation BiH for 2011-2021, since they are current and methodologically correct documents.

5.1 Research Priorities on the Basis of the Country's Readiness

Proposal of priorities of R&D takes in consideration the results of conducted analysis as well as the research results of several international development agencies that operate in BiH. We want to mention also the results of USAID activities that conducted a study about the possibility of forming clusters in food production industry, tourism, ICT, leather and clothing industry, industry of wood processing and furniture production, construction materials industry and meta industry. Based on three crucial criteria: growth potential, readiness for cluster formation and BH specific factors, four sectors were selected for cluster development: agribusiness, wood and furniture production, ICT and tourism. (USAID, 2002: 2).

Research priorities are

- Potential effects of R&D (types of innovations and possibility of their valorization)
- Contribution to the improvement of productivity in research (creation of human resources basis, providing the productive equipment, networking, R&D in Europe and world)

- Enhancement of the potentials and efficiency of HE, including the possibility to gain accreditation of HEI from relevant international accreditation houses
- Development of general level of knowledge of researchers (master thesis, doctoral level, participation in international conferences)
- Contribution to development and efficiency of institutions related to R&D
- Potentials of connecting the economy and universities and possible results of such connection
- Possibility of achieving higher levels of internationalization through research projects and activities of universities and research organizations
- Focus on EU funds: IPA and FP7
- Development and realization of projects JPP in the area of research
- Contribution of R&D activities based on direct effects of partner parties and based on cost-benefit analysis of spending the public money for R&D

5.2 SSH Research Priorities on the Basis of Future Potential

Following priorities in social sciences were defined: (Anon, 2009; Anon, 2010a; Anon, 2010b)

Priority 1: Research that contributes to economic, legal, cultural and spiritual development of society and systems;
 Priority 2: Research that ensures scientific basis for understanding the past and future changes in society;
 Priority 3: Research that contribute to directing the society towards innovations, creation of cultural ambient and education;
 Priority 4: Research that defines pointers of optimal model of economic development and future creation of market based economy;
 Priority 5: Research that defines conditions and human ability to adjust to the work and constant changes that modern technology offers.

When it comes to humanistic sciences following priorities were defined: (Anon, 2009; Anon, 2010a; Anon, 2010b)

Priority 1: Research that reveals historical development and cultural identity of BH people comparing to the surroundings and in context of European and world civilization;
 Priority 2: Research that pertains to cultural-civilization heritage of BH people;
 Priority 3: Research related to arts and literature, as well as

specific values that represent the contribution to European and world cultural heritage;

Priority 4: Research that promotes the multicultural content of BH identity.

In the short-term period following measures should be implemented in order to achieve the goals:

- Strengthening the science sector within Ministry of civil affairs
- Stronger cooperation with EC in order to enhance R&D through IPA funds
- Participation in activities of EU FP7 research program and other international programs
- Setting up the data basis and unique system of tracking and collecting the statistical data
- Planning the funds in MCP budget for co-financing of international projects
- Formation of Science Council
- Better cooperation between ministries that have authorities over the science and mutual data exchange
- Tax reliefs for companies that invest in research
- Possibility of approach to scientific information (journals, data basis etc.)

(Anon., 2009; Anon., 2010a; Anon., 2010b)

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Links SSH institutions:

- <http://www.efsa.unsa.ba/ef/en/about-us/about-the-school>
- <http://www.fknbih.edu/LinkClick.aspx?fileticket=OmzHj1iDyBM%3d&tabid=36&mid=383&language=hr-BA>
- http://www.fpn.unsa.ba/fpn/index.php?option=com_content&task=blogcategory&id=22&Itemid=43
- http://www.centarnirsa.ba/documents/centar_nirsa/The%20NIRSA%20Centre.pdf
- <http://www.pf.unsa.ba>
- <http://www.pfsa.unsa.ba/OFakultetu/IstorijaFakulteta/tabid/56/Default.aspx>
- http://www.iis.unsa.ba/o_institutu/o_institutu.html
- <http://www.institut-genocid.ba/about.html>
- http://www.ois.unsa.ba/index.php?option=com_content&view=article&id=14&Itemid=23
- http://www.ois.unsa.ba/index.php?option=com_content&view=article&id=42&Itemid=45
- <http://www.kbf.ba/page.php?id=12>
- <http://fju.edu.ba/eng/content/2>
- <http://web.utic.ba/>
- <http://www.hrc.unsa.ba/v2/index2.php?opcija=sadrzaj&kat=1&id=1&jezik=e>
- <http://www.hrc.unsa.ba/v2/index2.php?opcija=sadrzaj&kat=2&id=7&jezik=e>
- <http://www.cps.edu.ba/?q=node/118>
- <http://www.cps.edu.ba/?q=node/105>
- http://www.pf.unze.ba/nova/pocetna.php?opste_informacije=OK
- http://www.pf.unze.ba/nova/pocetna.php?opste_informacije=OK
- <http://www.unze.ba/en/fakulteti.htm>
- <http://www.ipf.unze.ba/index.php?id=493>
- http://www.unbi.ba/eng/index.php?option=com_content&view=article&id=50&Itemid=55
- http://www.unbi.ba/eng/index.php?option=com_content&view=article&id=53&Itemid=58

http://www.unbi.ba/eng/index.php?option=com_content&view=article&id=51&Itemid=57
http://www.unbi.ba/eng/index.php?option=com_content&view=article&id=49&Itemid=60
<http://www.ef.untz.ba/web/#>
http://www.ef.untz.ba/web/stranice/projekti_i_programi.htm
http://www.ef.untz.ba/web/stranice/projekti_i_programi.htm
<http://www.ff.untz.ba/o%20fakultetu.html>
<http://www.pf.untz.ba/PODSTRANICE/o%20fakultetu.html>
<http://www.efmo.ba/bos/stream.php?kat=10>
<http://www.fhn.unmo.ba/ofakultetu.aspx>
<http://www.nf.unmo.ba/ofakultetu.aspx>
<http://ef.sve-mo.ba/info/povijest.htm>
<http://www.pf.unmo.ba/fakultet.aspx> http://www.ffmo.ba/index.php?option=com_content&view=section&layout=blog&id=27&Itemid=293
http://pfmo.ba/index.php?option=com_content&view=article&id=46&Itemid=61
http://www.ffmo.ba/index.php?option=com_content&view=section&layout=blog&id=27&Itemid=293
http://pfmo.ba/index.php?option=com_content&view=article&id=46&Itemid=61
<http://www.unsa.ba>
<http://www.unze.ba>
<http://www.untz.ba>
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<http://www.unbi.ba>
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<http://www.aubih.edu.ba>

Additional Questionnaire

This questionnaire aims at producing an inventory of research structures, current and future R&D priorities, and policies for cooperation between Western Balkan Countries in the field of R&D in the domain of *Social Sciences and Humanities*.

Theme: Social Sciences and Humanities

Country name: Bosnia and Herzegovina

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Contact person for Republika Srpska: Prof. Ivan Šijaković
 Institution: Ekonomski fakultet, Banja Luka
 E-mail: isijakovic@yahoo.com

Section A: Main R&D resources in the field of Social Sciences and Humanities

A 1. List of institutions / organisations: main RESEARCH PERFORMERS in the PUBLIC sector in the S&T field of Social Sciences and Humanities (such as national universities, government laboratories, institutes etc.)

Name	Postal address	Website / Contact
Main research performers		
Academy of Sciences and Arts of BiH	Bistrik 7, 71000 Sarajevo	www.anubih.ba
The National and University Library of BiH	Zmaja od Bosne 8 B, 71000 Sarajevo	www.nub.ba
The National Museum of BiH	Zmaja od Bosne 3, 71000 Sarajevo	www.zemaljskimuzej.ba
University of Sarajevo	Obala Kulina bana 7/II	www.unsa.ba
School of Economics and Business Sarajevo	Trg oslobođenja AI 1, 71000 Sarajevo	www.efsa.unsa.ba
Economic institute, Sarajevo	Branilaca sarajeva 47, 71000 Sarajevo	ekonomskiinstitut@efsa.unsa.ba
Academy of Fine Arts, University of Sarajevo	Obala Maka Dizdara 3, 71000 Sarajevo	sekretarijat@alu-unsacom.ba
Faculty of Islamic studies, Sarajevo	Ćemerlina 54, 71000 Sarajevo	fin@fin.ba
Faculty of Criminal Justice Sciences Sarajevo	Zmaja od Bosne 8, 71000 Sarajevo	www.fknbih.edu
Faculty of political sciences Sarajevo	Skenderija 72, 71000 Sarajevo	www.fpnsa.edu.ba
Human Rights Centre, Sarajevo	Zmaja od Bosne 8, 71000 Sarajevo	hrc_sa@hrc.unsa.ba
The Institute for History	Alipašina 9, 71000 Sarajevo	nauka@bih.net.ba
Public Scientific Institution Language Institute	Hasana Kikića12, 71000 Sarajevo	insjezik@bih.net.ba
Institute for Research of Crimes Against Humanity and IL	Gajev trg 4, 71000 Sarajevo	institut_zl@hotmail.com
Historical Archive Sarajevo	Alipašina 19, 71000 Sarajevo	has@arhivsa.ba
Academy of Music, Sarajevo	Josipa Stadlera1/II, 71000 Sarajevo	masarajevo@yahoo.com
The Institute for Oriental Studies in Sarajevo	Zmaja od Bosne 8-b, 71000 Sarajevo	www.ois.unsa.ba
Pedagogical Academy (Faculty) Sarajevo	Skenderija 72, 71000 Sarajevo	pakademija@pa.unsa.ba
Faculty of Law, Sarajevo	Obala Kulina bana 7, 71000 Sarajevo	www.pfsa.unsa.ba
Faculty of Philosophy, Sarajevo	Franje Račkog 1, 71000 Sarajevo	www.ff.unsa.ba
University of Tuzla	Naser Prljača, 75000 Tuzla	www.untz.ba
Dzemat Bijedic University of Mostar	Maršala Titab.bb, 76000 Mostar	
University Mostar (Sveučilište)	Trg hrvatskih velikana 1, 88 000 Mostar	http://sve-mo.ba/

Univerziteti of Bihać	Pape Ivana Pavla II2/2, 77000 Bihać	
University of Zenica	Fakultetska 3. 72000 Zenica	www.unze.ba
Other		
Center for global understanding Law, Zenica	Fakultetska 3, 76000 Mostar	rektorat@unze.ba
Center for Society and Research, Zenica	Fakultetska 3, 76000 Mostar	rektorat@unze.ba
Faculty of Law, Zenica	Fakultetska 3. 72000 Zenica	rektorat@unze.ba
Islamic Faculty, Zenica	Fakultetska 3. 72000 Zenica	rektorat@unze.ba
Pedagogical Faculty, Bihać	Džanića Mahala 36, 77000 Bihać	
The Institute of Economics, Bihać	Kulina bana 2, 77000 Bihać	info@efbihac.org
Faculty of Economics, Bihać	Pape Ivana Pavla II2, 77000 Bihać	info@efbi.unbi.ba
Faculty of Law, University of Mostar	SRC MHH, 76000 Mostar	
Museum of Herzegovina	Bajatova 4, 76000 Mostar	muzej.herc@bih.net.ba
Institut za hrvatski jezik, književnost i povijest Sveučilišta u Mostaru	Matice hrvatske bb, 88000 Mostar	pedagoski.fakultet.mostar@tel.net.ba
Filozofski fakultet Sveučilišta u Mostaru	Matice hrvatske bb, 88000 Mostar	http://www.ffmo.ba/
Faculty of humanitis	USRC MHH bb, 76000 Mostar	fhn@unmo.ba
Arhiv HNK/Ž	Trg 1.maj 17, 76000 Mostar	arhivhmkz@bih.net.ba
Faculty of Education and Rehabilitation, Tuzla	Univerzitetska 1, 75000 Tuzla	nir@untz.ba
Faculty of Economics, Tuzla	Univerzitetaska 8, 75000 Tuzla	bahrija.umihanic@untz.ba
Arhiv of Tuzla country, Tuzla	Franje Ledera1, 75000 Tuzla	arhiv.tk@bih.net.ba
Faculty of Philosophy, Tuzla	Muharema FF 6, 75000 Tuzla	ahmet.kasumovic@untz.ba

Source: [http://registar.nub.ba/pls/htmldb/f?p=110:3:17815206534288281292;Anon.\(2010\):Informacija o stanju nauke u Federaciji BiH. Federalno ministarstvo obrazovanja i nauke, Sarajevo, pp10-12; http://registar.nub.ba/pls/htmldb/f?p=111:3:6060101751101720551](http://registar.nub.ba/pls/htmldb/f?p=110:3:17815206534288281292;Anon.(2010):Informacija%20o%20stanju%20nauke%20u%20Federaciji%20BiH.Federalno%20ministarstvo%20obrazovanja%20i%20nauke,%20Sarajevo,%20pp10-12;http://registar.nub.ba/pls/htmldb/f?p=111:3:6060101751101720551)

A 2. List of institutions / organisations: main RESEARCH PERFORMERS in the PRIVATE sector in the S&T field of Social Sciences and Humanities (such as national universities, government laboratories, institutes etc.)

Name	Postal address	Website / Contact
University of Vitez Travnik	Fatmić 11, 70000 Travnik	
International University Philip Noel Baker	Tvornička 3, 71000 Sarajevo	info@iupnb.edu.ba
International Burch University	Francuske revolucije b, 71000 Sarajevo	eoruc@ibu.edu.ba
Sarajevo School of Science and Technology	Bistrik 7, 71000 Sarajevo	research@ssst.edu.ba
University Travnik	Aleja Konzula 5 Travnik72270	www.fmt.ba
International University Travnik	Bunar bb Dolac 72270 Travnik	www.iu-travnik.com
Faculty social sciences dr Milenko Brkić	Put za. Podbrdo - Bijakovici	
Faculty of management CKM Mostar	Kneza Domagoja 12/ 2 Mostar	www.ckm-edu.com
Perspective (association)	Strajka Mitrovića 5, Zenica	sabina_begic@hotmail.com
Faculty of Law Kiseljak	Kraljice Mira bb, 70000 Travnik	kinezioloskifakultet@bih.net.ba
Fakultet za poslovni menadžment, Mostaru	USCR Sjeverni logor, 76000 Mostar	jasminka.bratc@cob.net.ba
Faculty for management and tourism	INA Kalibunar bb,	rasim.dacic@fmt.ba
Academic Society on International Affairs	Kaptol 22, 71000 Sarajevo	asia@bosnia.ba
Business cooperation network	Branilaca Sarajeva 20/I, 71000 Sarajevo	hromic@bih.net.ba
Archeological Park	Paromlinska 5, 71000 Sarajevo	info@piramidasunca.ba
Philosophical society "Theoria"	Franje Račkog 1, 71000 Sarajevo	faltsa@utic.nrt.ba
Heritage Group	Logavina 60, 71000 Sarajevo	damirhadzic@gmail.com
IMI Center "Zajedno"	Obala Kulina Bana 39, 71000 Sarajevo	zajedno@bih.net.ba
Catholic Theological Faculty in Sarajevo	Josipa Stadlera 5, 71000 Sarajevo	tajnistvo@kbf.ba
Institute for organization and economy	Skenderija 13, 71000 Sarajevo (LOK)	info@lokoinstitut.ba
International Forum Bosnia	Sime Milutinovića 10, 71000 Sarajevo	ifbosna@bih.net.ba
Prism Research Agencija	Obala Kulina Bana 15, 71000 Sarajevo	DINO@PRISMRESEARCH.BA
REIC ¹	Vilsonovo šetalište 9, 71000 Sarajevo	a.husika@reic.org.ba

44. Regionalni centar za obrazovanje i informisanje iz održivog razvoja za jugoistočnu Europu

Sarajevo Open Centre	Tina Ujevića 19/1, 71000 Sarajevo	office@soc.ba
Young Lawyers Association of BiH	Zmaja od Bosne 34, 71000 Sarajevo	mladipravnicibih@yahoo.com

A 3. Organisations responsible for financing R&D in the field of Social Sciences and Humanities

	Name	Web-site	Financing R&D- Year 2009: Total amount in national currency (000)	Financing R&D- Year 2009: Total amount in EUR (000)
1.	Government BH	http://www.vijeceministara.gov.ba	150	75
2.	Government of FBiH ⁴⁵	http://www.fbihvlada.gov.ba	1.540,2	772
3.	Cantons (10)	http://www.fzs.ba/kantoniubrojkama.htm	5.804,7	2.909,6
4.	Government RS	http://www.vladars.net	5.221,5	2.617,3
5.	Government District Brčko	http://www.bdcentral.net	750	376
TOTAL::			13466,4	6749,9

Source: Anon. (2010): Informacija o stanju nauke u Federaciji Bosne i Hercegovine. Federalno ministarstvo obrazovanja i nauke., Sarajevo, p73

Note: Federation BiH 16.433.000 KM (8.237.093 EUR) + Republic Srpska 8.994.000 KM (4.508.271 EUR) + District Brčko 654.000 KM (327.820 EUR) = 26.081.000 KM (13.073.184 EUR). On the Federation Bosnia and Herzegovina and on the cantons level there is not Ministry for science. Science is part of the Ministry for education and science. Federation Bosnia and Herzegovina give more than 0,1 % Gross Domestic Product for science and technology (15 700 mill BAM at 2008) (Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni i Hercegovini 2010-2015., Sarajevo, p20) Financing R&D Bosnia and Herzegovina (2007) Bosnia and Herzegovina 0 + Federation BH 9,8 mill. KM + RS 4,6 mill. KM + District Brčko 0 KM (Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni i Hercegovini 2010-2015., Sarajevo, p13

A 4. How research is performed (indicate all that apply)

	Lead participating body (please use numbers from question A 3)	Other relevant bodies (please use numbers from question A 3)
In own institutions		
Published calls for tenders, open to all researchers	1, 2, 3, 4, 5	
Restricted tenders to preferred suppliers	1, 2, 3, 4, 5	
Co-funding with other national bodies	1, 2, 3, 4, 5	
Co-funding with other countries	1, 2, 3, 4, 5	
Other approaches – please fill in: _____		
Other approaches – please fill in: _____		
Is support restricted to national bodies (Y / N)		

Source: Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni i Hercegovini 2010-2015., Sarajevo, p20

A 5. R&D capacity* in SSH field

	1990	2005	2009
Total number of research organizations	116 ⁴⁵	NA	56 ⁴⁶
Of which universities	39 ⁴⁷	NA	33 ⁴⁸
Of which public research organizations	87 ⁴⁹	NA	
Of which private research organizations	0 ⁵⁰	NA	23 ⁵¹
Number of PhD students graduated	11 ⁵³	79 ⁵⁴	100 ⁵⁵
Total number of R&D personnel	10.603 ⁵⁶	NA	1025 ⁵⁷
Percentage of women in the total number of R&D personnel (NA)	NA	NA	NA
Total number of employees on a Full-Time-Equivalent (FTE) basis (NA)	NA	NA	NA

45. <http://www.fbihvlada.gov.ba/bosanski/budzet/2011/Zakon.pdf>

Total number of researchers	3.223 ⁵⁸	NA	NA
Percentage of women in the total number of researchers (NA)	NA	NA	NA
Total number of researchers on a FTE basis (NA)	NA	NA	NA
Number of researchers with Ph.D. degree or higher	NA	NA	247 ⁵⁹
Number of researchers with Ph.D. degree or higher on a FTE basis (NA)	NA	NA	NA
Number of researchers under the age of 35 (NA)	NA	NA	NA
Number of researchers under the age of 35 on a FTE basis	NA	NA	NA

* Please use OECD - Frascati Manual definitions if possible.

A 6. Research infrastructure in S&T field of Social Sciences and Humanities

a) Assessment of the physical research infrastructure (without office equipment)

The R&D institutions in general have an internationally competitive research infrastructure and are able to conduct top research in cutting-edge research topics	
The R&D institutions in general have top research infrastructure, the infrastructure enables regular international research co-operation but are not competitive if compared with the 'best in this research field'	
The R&D institutions in general have good quality research infrastructure, probably one of the most up-to-date in the country, but are not good enough to join in international research on a regular basis	
The R&D institutions in general have a rather obsolete research infrastructure if compared with international organisations and this is an obstacle to international research co-operation	
The R&D institutions in general have a rather obsolete research infrastructure and it is an obstacle to more domestic contracts	
The R&D institutions in general have no substantial infrastructure, but they have access to it and can participate in top research both nationally and internationally	x
Source: Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni i Hercegovini 2010-2015., Sarajevo, p20	

b) Most important physical research infrastructure in S&T field of Social science and humanities

1. ICT
2. Education (Master, PhD, postdoctoral programmes, others)
3. Database (Web of Science, ISI Web of Knowledge, etc.) excess to full text journals and books
4. Published of indexed journals, and books
5. International conferences (organisation and participation)
6. International networking (travel costs, accommodation and other)
7. Building, equipment, offices

Source: Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni I Hercegovini 2010-2015., Sarajevo

A 7. Large and/or National R&D projects in S&T field of Social Sciences and Humanities

	ongoing /started in 2009	completed in 2009
Number of large R&D projects**		
Of which: the number of projects in collaboration with industry		
the number of projects in which the national organisation co-ordinates		
the number of EU FP projects in which national institutions participate		

46. Anon. (1991): Statistički godišnjak Jugoslavije. Savezni zavod za statistiku SFRJ, Beograd, p602

47. Total 140 <http://registar.nub.ba/pls/htmldb/f?p=110:13:14329920011465145255::NO:::25.07.2011> and <http://registar.nub.ba/pls/htmldb/f?p=111:13:16038665691056255849::NO:::>

48. Anon. (1991): Statistički godišnjak Jugoslavije. Savezni zavod za statistiku SFRJ, Beograd, p602

49. <http://registar.nub.ba/pls/htmldb/f?p=110:13:14329920011465145255::NO:::25.07.2011> and <http://registar.nub.ba/pls/htmldb/f?p=111:13:16038665691056255849::NO:::>

50. Anon. (1991): Statistički godišnjak Jugoslavije. Savezni zavod za statistiku SFRJ, Beograd, p602

51. Anon. (1991): Statistički godišnjak Jugoslavije. Savezni zavod za statistiku SFRJ, Beograd, p602

52. <http://registar.nub.ba/pls/htmldb/f?p=110:13:14329920011465145255::NO:::25.07.2011> and <http://registar.nub.ba/pls/htmldb/f?p=111:13:16038665691056255849::NO:::>

53. Anon. (1991): Statistički godišnjak Jugoslavije. Savezni zavod za statistiku SFRJ, Beograd, p601, od toga 24 PhD društvene

54. Anon. (2010). Statistički godišnjak Federacije Bosne I Hercegovine 2010. Federalni zavod za statistiku, Sarajevo, p387 (for FBiH)

55. Anon. (2010). Statistički godišnjak Federacije Bosne I Hercegovine 2010. Federalni zavod za statistiku, Sarajevo, p387 (for FBiH)

56. Anon. (1991): Statistički godišnjak Jugoslavije. Savezni zavod za statistiku SFRJ, Beograd, p602

57. 292 R&D personal humanistic and social science (total Federation 1966 (source: <http://registar.nub.ba/pls/htmldb/f?p=110:13:14329920011465145255::NO:::25.07.2011> and <http://registar.nub.ba/pls/htmldb/f?p=111:13:16038665691056255849::NO:::>

58. Anon. (1991): Statistički godišnjak Jugoslavije. Savezni zavod za statistiku SFRJ, Beograd, p602

59. PhD 247 total 1025 at Federation BiH <http://registar.nub.ba/pls/htmldb/f?p=110:13:14329920011465145255::NO:::25.07.2011>.

the number of EU FP projects in which national institutions coordinate		
Number of national R&D projects***		2 ⁶⁰
Of which: the number of projects in collaboration with industry		
Federation BH 2008 - R&D projects 940000 KM; reconstruction and support to universities and institutions 2565000 KM; publishing relevant journals 54000 KM, projects 110720 KM, books 122200 KM, organisation conferences and etc. 329170 KM, participation 48459,80 KM. (total 8-10 mill. KM for Federation from budget) Source: Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni i Hercegovini 2010-2015., Sarajevo, p22		
Federation BH 2009 – support sciences and universities 571922 KM, relevant journals 45490 KM, research 27100 KM, books and other publication 56702 KM, organisation conferences 96530 KM and participation 69110 KM Anon. (2010): Informacija o stanju nauke u Federaciji Bosne i Hercegovine. Federalno ministarstvo obrazovanja i nauke., Sarajevo, p75		

** the total project budget is above EUR 100 thousand and the national institutions' share is at least EUR 20 thousand

*** projects funded in some proportion (10-100%) by the national agency/ ministry

A 8. Source of financing of R&D activities in S&T field of Social Sciences and Humanities

	Year 2009 – Share in %:
a) Private companies?	
b) International sources (such as the EU, UN, OECD, NATO etc.)?	
c) Not competitive* government financing?	
d) Competitive* government financing?	
e) Other sources (foundations, non-profit organisations, etc.)?	

* Projects won after competitive bidding procedures – so that the organisation can actually lose the funding targeted at the end of the procedure – count as source on a competitive basis. If the organisation participates in a money-allocation mechanism so that the money cannot be lost (but e.g. „only“ reduced), it counts as source on a non-competitive basis of research funding even if the procedure itself is called „competitive bidding“.

Note: There is no information available.

Source: Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni i Hercegovini 2010-2015., Sarajevo, pp20-23; Anon. (2010): Informacija o stanju nauke u Federaciji Bosne i Hercegovine. Federalno ministarstvo obrazovanja i nauke., Sarajevo, pp74-75

Section B: Qualitative assessment of the S&T field

B 1 Current situation in SSH

a) What are the main national development policy priorities?

Social inclusion, development and access to EU are the main national development policy priorities

b) What are the main R&D priorities?

There is not R&D priorities on the national (state)

c) How would you put identified R&D priorities in EU research topics?

- Programmes basic and other research
- Programmes strengthening human capacity
- Programmes publishing indexed journals
- Programmes of international cooperation
- Programmes procurement equipment and other
- Programmes organisation scientific manifestation
- Access to relevant database and buying relevant books
- Support to institutions etc.

Source: Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni i Hercegovini 2010-2015., Sarajevo, p21

60. source: <http://registar.nub.ba/pls/htmldb/f?p=110:13:14329920011465145255::NO:::25.07.2011> and <http://registar.nub.ba/pls/htmldb/f?p=111:13:16038665691056255849::NO:::>

B 2 Future priorities**a) Describe how your future R&D priorities are selected and priorities agreed (e.g. foresight)? Are these driven by national policy priorities?**

- For R&D on the state level
- Establishment legal framework
- Strengthening human capacity
- Development of system evaluation
- Development and implementation of system for election
- Establishment statistical data base for science
- Strengthening science infrastructure
- Building and servicing network
- Integration science, university and business
- Integration in EU and global sciences process
- Financing sciences

Source: Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni i Hercegovini 2010-2015., Sarajevo, p60-61

b) Over the next 10 years, what will be the main R&D policy issues in this S&T field?

For Social Sciences and Humanities on the state level

- Contribution social, economic and other aspects development
- Contribution to understanding past, current and future development
- Contribution to new approach of development based on innovation, knowledge
- Contribution to new model economic development based on the market
- Contribution to human been
- Contribution for understanding history, culture, identity, arts, etc.

Source: Hukić, M. et al. (2009): Strategija razvoja nauke u Bosni i Hercegovini 2010-2015., Sarajevo, p71

B 3 What national policy and R&D priorities should be the subject for establishment of specific co-operation with other Western Balkan Countries?

Answer to this question would require a consultation of relevant stakeholders in the country.

B 4 It is hoped that this exercise will identify areas for future collaboration and R&D co-operation in this S&T field, probably leading to a possible WBC R&D co-operation proposals under FP7. These projects foresee four levels of co-operation. They range from:

- a) The minimum – exchange of information and results;
- b) Systematic exchange and development of complementary programmes;
- c) Development of common approaches to agreed R&D priorities;
- d) The maximum – full joint approaches, common programmes and pooled funds with open access to researchers from participating countries.

So, with this in mind, what levels of co-operative actions would your country be able to support in the future in this S&T field?

Answer to this question would require public consultation with relevant stakeholders in the country.

B 5 A suggestion is to have a high level meeting once or twice a year; where WBC could decide upon themes on which to co-operate. This may lead to a proposal for a project or other forms of co-operation. Would your country be willing to participate in a high level meeting with other WBC to decide upon these themes?

Yes.

wbc-inco.net

Co-ordination of Research Policies
with the Western Balkan Countries



Background Report on Social Sciences and Humanities BOSNIA AND HERZEGOVINA

Prepared for the project WBC-INCO.NET

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